# CIVIL AVIATION AUTHORITY OF NEPAL

# MEDICAL REQUIREMENTS

## FIFTH EDITION 2020

Adoption of the Standards of the Annexes to the Chicago Convention of ICAO under Rule 81 and approved for publication by the Director General, Civil Aviation Authority of Nepal under Rule 82 of the Civil Aviation Rules, 2058 BS.(2002 CE).

First Edition 2002
Second Edition 2004
Third Edition 2009
Fourth Edition 2016
Fifth Edition 2020

This manual is available at:

**Licensing and Examination Division, Flight Safety Standards Department** Civil Aviation Authority of Nepal
Sinamangal, Kathmandu
4111042, 4111075
Fax: 97714111198

## REGULATORY REFERENCES

These Medical Requirements are to be read in conjunction with other related regulatory documents such as:

1.1. Civil Aviation Regulations 2002.
1.2. Flight Operations Requirements (FOR) Aeroplane, General Aviation and Helicopters
1.3. Nepalese Civil Aviation Airworthiness Requirements (NCAR)
1.4. Aeronautical Information Publications Nepal (AIP)
1.5. Personnel Licensing Requirements (PeLR)
1.6. Personnel Licensing Manual (PLM)
1.7. Dangerous Goods Handling Requirements (DGHR)
1.8. Medical Requirements
1.9. Aviation Enforcement Procedure Manual
1.10. CAAN DCP manual
1.11. ATO Manual
1.12. NFSR (Nepalese Flying School Requirements)

# FOREWORD

This fifth edition of Medical Requirements has been issued in order to align the Nepalese Regulation in line with the latest standards and recommended practices of Annex 1 to the Chicago Convention. These Requirements have been approved pursuant to Rule 82 of Civil Aviation Regulation 2058 (2002) under the authority of Civil Aviation Authority of Nepal Act, 2053 B.S. (1996 A.D.) conferred to the Director General, Civil Aviation Authority of Nepal to issue requirements, directives and manuals to implement the standards and recommended practices contained in the Annexes to the Convention.

This edition is hereby approved by the Director General of Civil Aviation Authority of Nepal and is issued with immediate effect after having been extensively revised and reviewed as per ICAO Annex-1, Standards and Recommended Practices.

This edition supersedes all previous editions of the Medical Requirements issued by Civil Aviation Authority of Nepal.

.....

Rajan Pokhrel
Director General
Civil Aviation Authority of Nepal
Date: 19th October 2020

**Intentionally left blank**

| CHAPTER | PAGE | REVISION NUMBER | DATE |
|---|---|---|---|
| CH-1 | 1-12 | 01 | April 01, 2021 |
| CH-1 | 1-10, 1-11 | 02 | March 17, 2023 |
| CH-2 | 2-27 | 03 | December 22, 2023 |
| CH-3 | 3-15, 3-16 | 02 | March 17, 2023 |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

**Intentionally left blank**

# LIST OF EFFECTIVE PAGES

| CHAPTER | PAGE | REVISION NUMBER | DATE |
|---|---|---|---|
| CH-1 | 1-12 | 01 | April 01, 2021 |
| CH-1 | 1-10, 1-11 | 02 | March 17, 2023 |
| CH-2 | 2-27 | 03 | December 22, 2023 |
| CH-3 | 3-15, 3-16 | 02 | March 17, 2023 |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

**Intentionally left blank**

# APPLICABILITY

These requirements are related to the provisions of Medical Examination and Assessment and Medical Standards for Licensing Requirements of Flight Crew and Air Traffic Controllers, and outlines guidelines for reviewing medical fitness in different medical/ailment conditions. These Medical Requirements will be applicable from the date of approval by the Director General.

**Intentionally left blank**

# INTRODUCTION

One of the functions of Civil Aviation Authority of Nepal is to issue licences through the Licensing and Examination Division of Flight Safety Standards Department to Flight Crew and Air Traffic Controllers. Besides knowledge and skill, the applicant must possess adequate levels of health, both physical and mental, and correctly functioning senses to safely perform the task. Hence, 'Medical Examination and Assessment' of the applicant forms an integral component and a regulatory requirement, before a licence is issued, whether it be an initial or a renewal. An applicant shall be free of any condition or disease that may jeopardize the safety of a flight while performing their duties.

The Medical Requirements have been prepared in cooperation with senior COSCAP aviation medicine experts as per the guideline of ICAO Annex-1 and Doc 8984. Consideration of ailments prevalent in Nepal has been made and the Requirements designed accordingly. They have been prepared for the Civil Aviation Medical Examiner, Licensing and Examination Division and Civil Aviation Authority of Nepal to provide guidelines for medical information and standards, Policies and Procedure in order to provide licence requirements of Flight Crew and Air Traffic Controllers and assess their fitness in the presence or absence of medical conditions.

Medical Requirements consists of 4 parts:

Part 0 : Document Control
Part 1 : Requirements for Medical Examination and Assessment
Part 2 : Medical Standards of Licensing Requirements
Part 3 : Guidelines on Medical Conditions.

They are in conformity with ICAO Standards and Recommended Practices contained in Annex 1 to the Convention on International Civil Aviation and are duly adopted by Civil Aviation Authority of Nepal. These Requirements are also incorporated into the Flight Operation Requirements and Personnel Licensing Requirements issued by Civil Aviation Authority of Nepal. In the preparation of these Requirements, Manual of Civil Aviation Medicine ICAO, Doc 8984-AN/895, and other Regulations and Standards practiced by leading aviation countries have also been referenced.

As knowledge and techniques are advancing rapidly and more and more experience is achieved, both in medicine and aviation, these medical requirements may be amended by Director General, Civil Aviation Authority of Nepal as and when appropriate.

**Intentionally left blank**

# TABLE OF CONTENTS

**ATTACHMENTS**

## DEFINITIONS

In the Medical Requirements, the following terms have meanings as defined below:

**Accredited medical conclusion:** The conclusion reached by one or more medical experts acceptable to the Licensing Authority for the purposes of the case concerned, in consultation with flight operations or other experts as necessary.

**Aeroplane:** A power-driven heavier-than-air aircraft deriving its lift in flight chiefly from aerodynamic reactions on surfaces, which remain fixed under given conditions of flight.

**Aircraft:** Any machine that can derive support in the atmosphere from the reactions of the air other than the reactions of the air against the earth's surface.

**Balloon:** A non-power driven, lighter-than-air aircraft.

Note 1: — Medical assessors evaluate medical reports submitted to the CAAN by medical examiners.

Note 2: — Medical assessors are expected to maintain the currency of their professional knowledge.

**Civil Aviation Medical Assessor:** A physician, appointed by the Licensing Authority, qualified and experienced in the practice of aviation medicine and competent in evaluating and assessing medical conditions of flight safety significance.

**Co-pilot:** A licenced pilot serving in any piloting capacity other than as pilot-in-command but excluding a pilot who is on board the aircraft for the sole purpose of receiving flight instruction.

**Crew member:** A person assigned by an operator to duty on an aircraft during flight time.

**Decrease in Medical Fitness:** It is a state or period when there is diminished medical fitness that may be attributable to illness, injuries, drugs or physical, physiological or mental stresses or finding outside the prescribed normal ranges, which lasts usually for certain period of time and is of temporary nature.

**Designated Medical Examiner:** A physician with training in aviation medicine and practical knowledge and experience of the aviation environment who is designated by the Licensing Authority to conduct medical examinations of fitness of applicants for licences or ratings for which medical requirements are prescribed.

**Flight Crew:** A licenced crew charged with duties essential to the operation of an aircraft during flight duty period.

**Flight crew member:** A licenced crew member charged with duties essential to the operation of an aircraft during flight time.

**Flight duty period:** The total time from the moment a flight crew member commences duty, immediately subsequent to a rest period and prior to making a flight or a series of flights, to the moment he is relieved of all duties having completed such flight or series of flights.

**Flight Time:** The total time from the moment an aircraft first moves for the purpose of taking off until the moment it comes to rest at the end of flight.

**Flight time — aeroplanes:** The total time from the moment an aeroplane first moves for the purpose of taking off until the moment it finally comes to rest at the end of the flight.

**Flight time — helicopters:** The total time from the moment a helicopter's rotor blades start turning until the moment the helicopter finally comes to rest at the end of the flight, and the rotor blades are stopped.

**General aviation:** All civil aviation operations other than scheduled air services and non-scheduled air transport operations for remuneration or hire.

**Glider:** A non-power driven, heavier-than-air aircraft, deriving its lift in flight chiefly from aerodynamic reaction on surfaces which remain fixed under given conditions of flight.

**Helicopter:** A heavier-than-air aircraft supported in flight chiefly by the reactions of the air on one or more power-driven rotors on substantially vertical axes.

**Human Performance: Human** capabilities and limitations which have an impact on the safety and efficiency of aeronautical operations.

**Licensing and Examination Division (LED):** The unit responsible for issuing and renewing the licence to flight crew and air traffic controllers in accordance with the applicable requirement.

**Licensing Authority:** The Director General of Civil Aviation Authority of Nepal is responsible for the licensing of personnel.

**Likely:** In the context of the medical provisions, **likely** means with a probability of occurring that is unacceptable to the Medical Assessor.

**Medical Assessment:** The evidence issued by a Contracting State that the licence holder meets specific requirements of medical fitness.

**Medical Condition:** Medical finding**,** physical or numerical, outside the normal range or standards of medical requirements.

**Medical Flight Test:** Actual flight test done to help assess the applicant's ability to perform under normal as well as adverse flight conditions if there is suspicion or overt manifestation of decreased physical ability or functional limitation.

**Pilot-in-command:** The pilot responsible for the operation and safety of the aircraft during flight.

**Psychoactive Substances:** Alcohol, opioids, cannabinoids, sedatives and hypnotics, cocaine, other psycho-stimulants, hallucinogens, and volatile solvents, whereas coffee and tobacco are excluded.

**Problematic use of substances:** The use of one or more psychoactive substances by aviation personnel in a way that;

a) constitutes a direct hazard to the user or endangers the lives, health or welfare of others; and/or

b) causes or worsens an occupational, social, mental or physical problem or disorder.

**Rated air traffic controller:** An air traffic controller holding a licence and valid ratings appropriate to the privileges exercised by him.

**Rating:** An authorisation entered on or associated with a licence and forming part thereof, stating special conditions, privileges or limitations pertaining to such licence.

**Rest period:** Any period of time on the ground during which a flight crew member is relieved of all duties by the operator.

**Safety-sensitive personnel:** Persons who might endanger aviation safety if they perform their duties and functions improperly. This definition includes, but is not limited to, flight crew, cabin crew, aircraft maintenance personnel and air traffic controllers.

**Significant:** In the context of the medical provisions in ICAO Annex 1 to the Convention on International Aviation, Chapter 6, **significant** means to a degree or of a nature that is likely to jeopardize flight safety.

**Specialist Medical Examiner**: Specialists from various fields of medicine designated by the Licensing Authority to conduct medical examinations of fitness of applicants for licences or ratings in their respective fields for which medical requirements are prescribed.

## ABBREVIATIONS

| | |
|---|---|
| **ATC** | Air Traffic Controller |
| **ATPL** | Airline Transport Pilot Licence |
| **CAAN** | Civil Aviation Authority of Nepal |
| **CAMA** | Civil Aviation Medical Assessor |
| **CAR** | Civil Aviation Regulations – 2058 (2002) |
| **COSCAP** | Co-operative Development of Operational Safety and Continuing Airworthiness under ICAO Technical Co-operation Programme |
| **CPL** | Commercial Pilot Licence |
| **DG** | Director General |
| **DME** | Designated Medical Examiner |
| **Dy. DG** | Deputy Director General |
| **FOD** | Flight Operation Division |
| **FOR** | Flight Operation Requirements |
| **ICAO** | International Civil Aviation Organization |
| **LED** | Licensing and Examination Division |
| **MPL** | Multi-crew Pilot Licence |
| **PPL** | Private Pilot Licence |
| **SME** | Specialist Medical Examiner |

# PART 0
# DOCUMENT CONTROL

## 0.1. General

Changes to this Requirement may be required as a result of the changes in government policy, medical advances, Quality Assurance activities or periodic review. To maintain the credibility and relevancy of the Requirements, it is required to be reviewed and revised to reflect changing circumstances.

This Requirement is issued under the authority of the Licensing and Examination Division, CAAN and is distributed according to the Distribution List. This Requirement is to be used only after it is approved by the Director General of Civil Aviation Authority of Nepal.

## 0.2. Person Responsible for Amendment and Revision

CAAN Licensing and Examination Division is responsible for the issue, amendment and revision of this manual in co-ordination with Civil Aviation Medical Assessor and with approval from the Director General CAAN. The Licensing and Examination Division shall maintain a list of the issued requirements with current edition, name of the holder, amendment information including current amendment and distribution list of the holders.

## 0.3. Amendment Procedure

This requirement is controlled by CAAN Licensing and Examination Division who is responsible for amending and distributing it to all holders as per the distribution list. Each copy of a manual should bear a serial number and a list of holders. The requirements shall be reviewed every three years for necessary amendment. Proposed amendments to the manual should be submitted to CAMA for approval before forwarding to DG CAAN. Approval from CAAN for the amendment will be given in written form. On receipt of the approved amendment from CAAN, the Chief of Licensing and Examination Division is responsible for ensuring the distribution of revisions to all holders mentioned in the Distribution List. Holders are responsible for incorporating such revisions. Every amendment or revision is identified by an amendment number entered at the bottom left hand side of each page. Minor amendments as described in 0.5.1 below shall be notified to DG CAAN but do not require approval from DG CAAN.

## 0.4. Amendment and Revision incorporation process

After each Manual Revision and Amendment, the Licensing and Examination Division of CAAN shall prepare a Manual Amendment Checklist. The requirements Holder shall remove pages and add pages according to the Manual Amendment Checklist. The requirement holder is then required to advise Licensing and Examination Division that the amendments or revision have been incorporated and that any changes have been implemented from the date of the approval.

## 0.5. CAAN Approvals of Amendments

The CAAN Licensing and Examination Division is the final authority for proposing any amendments in respect to these requirements, and for submitting such amendments to the DG, CAAN.

The contents of all amendments and revisions must be acceptable to, or, where applicable, approved by the CAAN. The following procedures shall apply.

### 0.5.1. Minor Amendments to the Requirements

The following are considered as minor changes and may be implemented without approval from the CAAN:

- Text changes which do not influence the approved procedures.
- Layout changes which do not influence the approved procedures.

Licensing and Examination Division shall submit DG CAAN with intended amendments in advance of the effective date.

### 0.5.2. Major Amendments to the Requirements

All changes other than those in Para 0.5.1 above, are considered major amendments and require prior approval from DG CAAN.

In addition, procedures, regulations and forms that are specific to the procedures always require a CAAN approval.

**0.5.3** Licensing and Examination Division shall obtain prior approval of the DG, CAAN before publication of any amendment. Exceptionally, if the amendment has an implication on safety, it may be published and applied immediately, provided the required approval from DG, CAAN has already been formally requested.

## 0.6. Issue and amendment date

The issue and amendment date shall be the date of CAAN approval letter, and the effective date shall be as indicated in the manual and amendments. The holder of this requirement shall be responsible for incorporating any necessary amendment.

## 0.7. Requirement Distribution

Master Copy of this requirement shall be maintained in Technical Library, FSSD and shall be published in CAAN Website. Copies of this requirement are distributed as per the distribution list below:

| SN | Holder | Hard Copy | Soft Copy |
|---|---|---|---|
| 1 | Office of the Director General | √ | |
| 2 | Office of Deputy Director General | √ | |
| 3 | Chief, Flight Safety Standards Department | √ | |
| 4 | Chief, Flight Operations Division | √ | |
| 5 | Chief, Licensing and Examination Division | √ | |
| 6. | ANSSD, CAAN | √ | |
| 7. | All LED Personnel | | √ |
| 8. | All CAAN Medical Assessors | | √ |
| 9. | Technical Library, FSSD (Master Copy) | | √ |

For quick distribution electronic copies may be sent through e-mail.

## 0.8. Responsibility of the Requirement Holder

Each holder of the requirements is responsible for keeping their copy of the requirements up to date, for entering the amendments and revisions correctly and for making sure that only the current version is in use. On completion of every revision, each requirement holder must sign and date the change in the Record of Revision. A copy of the signed Record of Revision shall be forwarded to the Training Manager to aid in document control. For holders of electronic copies, an email acknowledging receipt and understanding shall be sent to the Training Manager.

The requirement holder must study any amendment immediately upon receipt and insert the revision in the requirement in accordance with the effective date of the Letter of Revision or at first opportunity. All holders of the requirement are responsible to notify any discrepancy, error or difficulty in interpretation to CAAN Licensing and Examination Division without delay.

## 0.9. List of Effective Pages

The List of Effective Pages (LEP) contained in front of the requirement lists all pages with their issue dates. After a revision the manual must comply with the current LEP.

# PART 1

# REQUIREMENTS FOR MEDICAL EXAMINATION AND ASSESSMENT

## 1.1 REQUIREMENT OF MEDICAL ASSESSMENT

1.1.1 Flight Crew Members, Air Traffic Controllers, and any other aviation personnel requiring medical certification shall not exercise the privileges of their licence or certificate unless they hold a current Medical Assessment as prescribed by the Civil Aviation Authority of Nepal.

a) Guidance material published in the Personnel Licensing Manual of CAAN shall be referred to.

b) Applicants shall meet the prescribed licensing requirements of medical fitness for the issue of various types of licences and certificates as mentioned in this requirement and Personnel Licensing Requirements.

c) The licensing authority shall issue the licence holder with the appropriate medical assessment, Class 1, Class 2 or Class 3 or as prescribed for certain licences and certificates.

d) The medical assessment shall be issued in the prescribed format.

1.1.2 The medical assessment shall be an integral part of the licence or certificates (not necessarily endorsed on the licence or certificate itself.

## 1.2 MEDICAL FORMS

Attachment one of this requirements comprises of medical forms as detailed below:

| MED FORM | Page | Form Name |
|---|---|---|
| A-1/6 | 1-4 | Application and Statement Form, |
| A-2/6 | | Medical Examination Form, |
| A-3/6 | | Medical Examination Form for Ear, Nose & Throat Examination |
| A-4/6 | | Medical Examination Form for Eye, Visual Acuity and Colour Perception. |
| A-5/6 | 5 | Medical Assessment Form |
| A-6/6 | 6 | Medical Certificate. |

Medical Forms will be submitted in printed form. They are available from Flight Safety Standards Department, Sinamangal, Kathmandu.

1.2.1 Designated Medical examiners shall have practical knowledge and experience of the conditions in which the holders of licences and ratings carry out their duties.

## 1.3 MEDICAL HISTORY AND DECLARATION

1.3.1 The applicant shall furnish personal information regarding illness, injury, disability or history pertaining to their medical fitness in the past as asked in the statement form and submit it to the Designated Medical Examiner (DME) at the time of medical examination. The applicant

will also provide contact details, including phone number, and is required to sign in an appropriate place in the statement form. A false declaration may result in punitive action considered appropriate by Aviation Enforcement Policy and Procedure Manual.

## 1.4 MEDICAL EXAMINATION

The medical examination shall cover the following three parts, as under:

1. Physical and Mental Examination,
2. Ear, Nose & Throat Examination and Hearing, and
3. Eye Examination, Visual Acuity &Colour Perception

### 1.4.1 Physical and mental requirements

An applicant for any class of medical assessment shall be required to be free from:

a) any abnormality, congenital or acquired; or

b) any active, latent, acute or chronic disability; or

c) any wound, injury or sequelae from operation; or

d) any effect or side-effect of any prescribed or non-prescribed therapeutic, diagnostic or preventive medication taken such as would entail a degree of functional incapacity which is likely to interfere with the safe operation of an aircraft or with the safe performance of duties.

*Note: The use of herbal medication and alternative treatments requires particular attention to possible side-effects.*

### 1.4.2. Visual acuity test requirements

The following shall be adopted for tests of visual acuity:

a) Visual acuity tests shall be conducted in an environment with a level of illumination that corresponds to ordinary office illumination (30-60 cd/m2).

b) Visual acuity shall be measured by means of a series of Land oltrings or similar optotypes, placed at a distance from the applicant appropriate to the method of testing adopted.

### 1.4.3 Colour perception requirements

CAAN shall use methods of examination as will guarantee reliable testing of colour perception.

a. The applicant shall be required to demonstrate the ability to perceive readily those colours the perception of which is necessary for the safe performance of duties.
b. The applicant shall be tested for the ability to correctly identify a series of pseudo iso-chromatic plates in daylight or in artificial light of the same colour temperature such as that provided by CIE standard illuminants C or D65 as specified by the International Commission on Illumination (CIE).

c. An applicant obtaining a satisfactory result as prescribed by the licensing authority shall be assessed as fit. An applicant failing to obtain a satisfactory result in such a test shall be assessed as unfit unless able to readily distinguish the colours used in air navigation and correctly identify aviation coloured lights. Applicants who fail to meet these criteria shall be assessed as unfit except for Class 2 assessment with the restriction: valid daytime only.

d. Sunglasses worn during the exercise of the privileges of the licence or rating held should be non-polarizing and of a neutral grey tint.

**1.4.4Hearing test requirements**

CAAN shall use methods of examination as will guarantee reliable testing of hearing.

a. Applicants shall be required to demonstrate a hearing performance sufficient for the safe exercise of their licence and rating privileges.

b. Applicants for Class 1 medical assessments shall be tested by pure-tone audiometry at first issue of the assessment, not less than once every five years up to the age of 40 years, and thereafter not less than once every two years. Alternatively, other methods providing equivalent results may be used.

c. Applicants for Class 3 medical assessments shall be tested by pure-tone audiometry at first issue of the assessment, not less than once every four years up to the age of 40 years, and thereafter not less than once every two years. Alternatively, other methods providing equivalent results may be used.

d. Applicants for Class 2 medical assessments should be tested by pure-tone audiometry at first issue of the assessment and, after the age of 50 years, not less than once every two years.

e. At medical examinations, other than those mentioned above, where audiometry is not performed, applicants shall be tested in a quiet room by whispered and spoken voice tests.

f. The reference zero for calibration of pure-tone audiometers is that of the pertinent standards of the current edition of the audiometric test methods, published by the International Organization for Standardization (ISO).

g. For the purpose of testing hearing in accordance with the requirements, a quiet room is a room in which the intensity of the background noise is less than 35 dB(a).

h. For the purpose of testing hearing in accordance with the requirements, the sound level of an average conversational voice at 1 m from the point of output (lower lip of the speaker) is c. 60 dB(a) and that of a whispered voice c. 45dB(a). at 2 m from the speaker, the sound level is 6 dB(a) lower.

i. Private pilot licence holders requiring an instrument rating shall qualify for hearing acuity of Class 1 standard.

### 1.4.5 Medical Tests Required

The following tests will be prescribed for initial licence issue: Urine (routine and microscopy), complete blood count and ESR, random blood sugar, chest X-ray (PA view), electrocardiogram and audiogram. Urine for albumin and sugar will be done at each medical. Other tests will be prescribed as required periodically. These test requirements vary depending on Medical Assessment Class. Additional tests will be required after the fortieth birthday viz. Blood sugar, Lipid profile, Urine Routine and Microscopic examination, Echocardiogram and Exercise ECG and then repeated periodically every five years in case of Class I Medical Assessment. In specific cases further examinations and tests may be required. Tests required for Medical Assessment are given in Appendix 1.

Each applicant will be examined by a DME, SME Eye and SME ENT and each will record their findings in the respective part of the Medical Forms and give opinion as to the medical fitness of the applicant. The applicant must confirm to the standards of medical fitness laid down in the particular class of Medical Assessment in order to pass the medical examination. If there is any finding outside the standards or any deficit or defect, numerically or otherwise, the DME will record them and give their remarks or opinion.

## 1.5 MEDICAL ASSESSMENT

1.5.1 A Medical Assessment will be done by the Civil Aviation Medical Assessor (CAMA). CAMA will evaluate the completed Statement Form duly filled out by the Applicant. The form will be evaluated for completeness, any declaration about medical history, medical condition, medical procedures, medications and any other related information provided. CAMA will also look for consistency or discrepancy as compared to previous Statement Forms. CAMA will ask for a detailed medical report as well as periodic medical review from the treating physician if any medical condition is declared in the Statement Form.

1.5.2 The completed Medical Examination Form duly filled by CAME, DME Eye and DME ENT will be evaluated for completeness of the form, examination findings of CAME and DMEs, opinion of CAME and DMEs and remarks, if any. If needed, CAMA may ask for more detailed evaluation and medical reports. Based on this, a medical assessment will be done as PASS, DEFERRED or FAIL. A Medical assessment will need 7-10 days to complete. The applicants are expected to submit their Statement Form and Medical Examination Form well in advance of their licence expiry date in order to facilitate completion of the medical assessment in time.

1.5.3 If the licence is DEFERRED for any reason, a reassessment will be done after reviewing all the medical documents in detail. The Medical Assessor may request a more detailed evaluation by a specialist in various medical fields, as needed. After scrutinizing all the available documents in detail, a final medical assessment will be done. This process may take 2-4 weeks.

1.5.4 For those who FAIL a medical assessment, the final decision will be communicated through an appropriate channel. There is a provision for appeal as per section 1.15. To maintain medical confidentiality, no inquiry about medical status of an applicant will be entertained from

any unauthorised person and final opinion will be communicated through a proper channel after satisfying all aspect of medical examination.

1.5.5If there is finding outside the standards or any deficit or defect, numerically or otherwise, that is unlikely to interfere with the safe exercise of the applicant's licence, the CAMA may assess the applicant as medically fit and recommend a limitation or endorsement if deemed necessary for the sake of flight safety.

1.5.6An applicant who has passed the medical assessment is considered physically and mentally fit for performing their duties and also that they will remain so for the period of validity of the licence.

## 1.6 MEDICAL CONFIDENTIALITY

1.6.1 Medical confidentiality shall be respected at all times.

1.6.2 All medical reports and records shall be securely held with accessibility restricted to authorised personnel. When justified by operational considerations, the civil aviation medical assessor (CAMA) shall determine to what extent pertinent medical information is presented to relevant officials of the Licensing Authority.

## 1.7 MEDICAL FITNESS

The applicant should satisfy the CAME, DMEs and CAMA that they are medically fit to exercise the privilege of the licence as per the medical standards for licensing. If there is any doubt as to their medical fitness, further examinations or tests or opinion from medical experts will be required.

## 1.8 DECREASE IN MEDICAL FITNESS

It is a state or period when there is diminished medical fitness which may be attributable to illness, injuries, drugs, or physical, physiological or mental stresses or there is finding outside the prescribed normal ranges, which lasts for certain period of time and is of temporary nature.

If the applicant is aware, or has reason to believe, that their physical or mental or sensory faculties have decreased, as a result of common ailments, or fasting or fatigue or tension or drugs, injuries, accident, operation, invasive procedures or hospitalization, etc. to a degree which could jeopardize flight safety, they will defer their medical examination until their physical or mental or sensory faculties have fully recovered. The licence holder shall not utilize the privilege of their licence until they have fully recovered.

Such cases should be notified to the CAME or DMEs at the time of medical examination by the licence holder or the airline in writing to CAMA or LED. All relevant medical reports or documents must also be submitted.

Decrease in medical fitness can usually be assumed to be present in the following situations:

1. Aftersevere illness, injuries, accident, operation, invasive procedures or hospitalization,
2. Incapacitation for more than 21 days,
3. Problematic use of substances or illicit drugs,
4. Being pregnant

The applicantwill be required to undergo a medical examination and assessment and be certified medically fit before again exercising the privilege of their licence.

## 1.9 BORDERLINE MEDICAL FINDING

In case of a finding which is outside the prescribed normal range or undesirable or indicative of early sign of disease process, but not necessarily likely to cause incapacitation or jeopardize the flight safety, the CAMA will inform the applicant or licence holder and may ask for further tests, further opinion from experts or advise the applicant to see an airline doctor or their personal doctor to take timely precautions.

## 1.10 ACCREDITED MEDICAL OPINION

If the applicant for or the holder of a licence does not meet the requirements or is found to have any condition due to illness, injury or operation or sequalae therefrom which causes or may cause incapacitation interfering with the performance of duties, further evaluation from a specialist and additional tests may be required. Such cases may be referred to specialists or experts for their opinion by CAMA. Opinion received from such special medical evaluation is called 'Accredited Medical Opinion'. If accredited medical opinion certifies the applicant as medically fit, it indicates that applicant's or holder's failure to meet any requirement is not likely to jeopardize flight safety. The relevant ability, skill and experience of the applicant and operational conditions are given due consideration in such an evaluation. It may be endorsed by CAMA with limitations or restrictions if necessary, for the sake of flight safety.

## 1.11 MEDICAL FLIGHT TEST

Where there is some question as to the degree of decreased physical ability or functional limitation, an applicant may be tested in actual flight to see if they can operate the aircraft without compromising the flight safety during routine and emergencies. This will be done under the supervision of an instructor pilot, and preferably with CAMA and can also be combined with a pilot proficiency check.

## 1.12 FLEXIBILITY CLAUSE

If the applicant has a deficit or defect, numerical or otherwise, that may cause a degree of functional incapacity; CAMA can recommend renewal of a licence, with the evidence that the applicant has already acquired and demonstrated ability, skill and experience which could compensate for the failure to meet the prescribed medical standard. The deficit or defect must be shown to not produce any hazard either of incapacity or of inability to perform their duty safely. However, this provision may be applied with endorsements e.g. operational or multi-crew

limitation or restriction, assistance like glasses, additional tests in medical examination, frequent medical examination, etc. It will be done usually on an 'accredited medical opinion'. This is popularly called a 'waiver' and an applicant shall be assessed as 'fit' under 'flexibility clause' only after careful consideration of all aspects of the individual case.

## 1.13 MEDICALLY UNFIT OR DEFERRED MEDICAL ASSESSMENT

If the applicant for a licence, whether it be initial or renewal, does not clearly meet the medical requirements or is found to have any condition due to illness, injury or operation or sequalae therefrom or influence of psycho-active substances or problematic use of substances or drugs, which causes or may cause incapacitation interfering with the performance of duties safely, they will not pass the medical assessment. The applicant will be certified medically unfit. However, in case of doubt, medical assessment is deferred until further evaluation is done and information gathered. Final certification is made whether medically fit or unfit only after consideration of the full set of details.

## 1.14 SUSPENSION OF LICENCE ON MEDICAL REASON

Should a licence holder fail to meet the medical requirements they will be notified that their licence shall be suspended. They may then undergo another medical examination and submit reports about their diagnosis, treatment and progress from their treating doctor. Should their recovery be slow, they may submit reports at least every six months to the CAMA for consideration. If their recovery takes longer than two years, they will then be considered as a new applicant for the licence.

## 1.15 PROVISION OF APPEAL

If a licence is denied, or suspended or deferred on medical grounds and the applicant for, or holder of a licence is not satisfied, then the applicant or holder has the right of appeal to Director General, CAAN within the period of 45 days from the date of notification of the decision. The DG CAAN in turn may request a second medical opinion.

## 1.16 EXPIRED LICENCE DUE TO MEDICAL REASON

Any flight crew or air traffic controller whose licence has expired due to medical reasons must undergo a medical examination and assessment and be assessed medically fit for the reissue of the licence. During the medical examination the licence holder should submit full medical reports from the treating physician with all the investigations and treatment, and report that they have fully recovered from the disqualifying medical condition. If the licence holder has missed two consecutive medical examinations from the expiration of the licence, the medical examination will be as if for the initial issue of licence and other tests may be required.

## 1.17 VALIDATION OF FOREIGN LICENCE

Validation of foreign licences will be done by LED of CAAN if the licence holder can provide evidence that they have complied with equivalent licence requirements, including a medical assessment in the State of the issue of the licence.

CAAN reserves the right to demand additional tests, a medical examination and assessment of a foreign licence holder to ascertain their medical fitness and ability to comply with the medical requirements of CAAN.

## 1.18 DISPENSATION OF MEDICAL EXAMINATION AND ASSESSMENT

If a licence holder is based in a region where medical examination is not possible, the period of validity of a Medical Assessment may be extended, at the discretion of the Civil Aviation Authority of Nepal, up to 45 days (as per Annex 1 and PeLR 1.19.3). The reason for seeking an extension must be clearly stated and should satisfy CAMA and LED. An extension may be done once only. CAMA and LED have right to refuse extension. Such a licence holder should forward to LED a medical certificate from a local registered practitioner declaring their medical fitness in accordance with the Medical Requirements, if possible.

## 1.19 EXCEEDING CUMULATIVE FLIGHT HOURS LIMITATION

The privileges of a licence will automatically cease the moment the crew member reaches the cumulative flight hours limitation as laid down in FOR. However, in special circumstances licence suspension may be waived if the there is a written application and LED is satisfied the applicant is medically fit. A medical examination must be carried out and the CAMA be satisfied and certifies the applicant as medically fit. CAMA will specifically ensure that there are no symptoms and signs of fatigue. This will be in exceptional situation and for the shortest possible period only.

## 1.20 FEE

The fees and expenditure for medical examination, tests, medical assessment and evaluation by specialist or experts (accredited medical opinion), medical flight tests and second opinion after appeal, will be borne by the applicant or their concerned institution. The fee structure will be reviewed by CAAN as required normally in three years.

## 1.21 DESIGNATED MEDICAL EXAMINER (DME)

1.21.1 The Designated Medical Examiners (DME) are medical practitioners designated by Civil Aviation Authority of Nepal who will perform the medical examination of aviation professionals for the purpose of personnel licensing.

1.21.2 In order to be designated as DME, an applicant shall have:

a) Nepalese citizenship certificate;

b) Medical graduate or MBBS certificate;
c) Post-graduate MD (Internal Medicine or General Practice) or equivalent
d) Evidence of experience of at least two years practice in that specialty;
e) Registration with Nepal Medical Council;
f) Basic training in Aviation Medicine of 60 hours or equivalent (competency based);
h) Pass an interview/oral examination conducted by CAAN to demonstrate their competency.
i) Experience of the working environment of both pilot and air traffic controller
k) Satisfactorily demonstrated affiliation with a recommended hospital or clinic for clinical examination.

1.21.3 DME will be designated among the applicants based on competency and experience in aviation medicine. A board formed by CAAN comprising of CAMA and FSSD authorities will evaluate applicants for competency and DME will be designated based on merit.

1.21.4 They are also required to attend refresher training in aviation medicine once in every two years to maintain professional competency. The refresher training will be at least half a day and will be conducted in Kathmandu.

1.21.5They shall also have knowledge, familiarity and training in Aviation Medicine. A post-graduate qualification in aviation medicine will be an added advantage.

1.21.6Once designated by the Civil Aviation Authority as CAME or DME, they shall be authorised to conduct Class I/II/III Medical Examination.

1.21.7 The CAME and DME shall forward a Medical Report to the Civil Aviation Medical Assessor for final assessment. They must ensure a thorough examination.

1.21.8The DME shall have access to medical examination related documents like Annex 1, PELR, Personnel Licensing Manual, Medical Requirements, Medical Manual, and relevant documents from Licensing and Examination Division.

1.21.9The CAME and DME shall exhibit the conduct and behaviour commensurate with their position and will always abide by the rules and regulations of CAAN.

1.21.10Adequate enforcement action will be taken against the DME if they are found not performing up to the standard and contravening the CAAN or applicable rules and regulations of Nepal including those of Nepal Medical Council (NMC).

1.21.11 There will be an annual surveillance plan of the DMEs, and they shall be responsible to be available for inspection by the team of CAAN including the CAMA.

1.21.12 The DME shall report to LED FSSD CAAN any false declaration made by the applicant in the process of applying for a medical certificate.

1.21.13 The tenure of a CAME or DME will be for two years unless suspended, revoked or surrendered. The extension of the term for subsequent years will be dependent on the satisfactory inspection report following the annual surveillance program.

1.21.14 The tenure of a DME will not be extended in the event of the DME failing to demonstrate satisfactory performance.

1.21.15 The purpose of such auditing is to ensure that the DMEs meet applicable standards for good medical practice and aeromedical risk assessment. Guidance on aeromedical risk assessment is contained in the Manual of Civil Aviation Medicine (Doc 8984).

## 1.22 SPECIALIST MEDICAL EXAMINER (SME)

1.22.1 The Specialist Medical Examiners (SME) are medical practitioners specialised in fields of Ophthalmology (Eye) or Oto-rhino-laryngology (ENT) designated by Civil Aviation Authority of Nepal who will perform the medical examination of aviation professionals for the purpose of personnel licensing.

1.22.2 In order to be designated as SME, an applicant shall have:

a) Nepalese citizenship certificate.
b) Medical graduate or MBBS certificate.
c) Post-graduate MD/MS in Ophthalmology (Eye) or Oto-rhino-laryngology (ENT) or equivalent.
d) Evidence of experience of at least two years practice in that specialty.
e) Registration with Nepal Medical Council.
f) Experience of working environment of pilot and air traffic controller.
k) Satisfactorily demonstrated affiliation with a recommended hospital or clinic for clinical examination.

1.22.2 SME will be designated among the applicants based on competency and experience in aviation medicine.

1.22.3 They are also required to attend refresher training in aviation medicine once in every two years to maintain professional competency. The refresher training will be at least half a day and will be conducted in Kathmandu.

1.22.4 After designation SME will have to attend tower visit organized by FSSD to get familiarized with working environment of Air Traffic Controllers (ATCs).

1.22.5 Once designated by the Civil Aviation Authority as SME, they shall be authorised to conduct Class I/II/III Medical Examination.

1.22.6 The SME shall forward a Medical Report to the Civil Aviation Medical Assessor for final assessment. They must ensure thorough examination.

1.22.7 The SME shall have access to medical examination related documents like Annex 1, PELR, Personnel Licensing Manual, Medical Requirements, Medical Manual, and relevant documents from Licensing and Examination Division.

1.22.8 The SME shall exhibit the conduct and behaviour commensurate with their position and will always abide by the rules and regulations of CAAN.

1.22.9 Adequate enforcement action will be taken against the SME if they are found not performing up to the standard and contravening the CAAN or applicable rules and regulations of Nepal including those of Nepal Medical Council (NMC).

1.22.10 There will be an annual surveillance plan of the SMEs and they shall be responsible to be available for inspection by the team of CAAN including the CAMA.

1.22.11 The SME shall report to LED FSSD CAAN any false declaration made by the applicant in the process of applying for a medical certificate.

1.22.12 The tenure of a SME will be for two years unless suspended, revoked or surrendered. The extension of the term for subsequent years will be dependent on the satisfactory inspection report following the annual surveillance program.

1.22.13 The tenure of a SME will not be extended in the event of the SME failing to demonstrate satisfactory performance.

1.22.14 The purpose of such auditing is to ensure that SME meet applicable standards for good medical practice and aeromedical risk assessment. Guidance on aeromedical risk assessment is contained in the Manual of Civil Aviation Medicine (Doc 8984).

## 1.23 CIVIL AVIATION MEDICAL ASSESSOR (CAMA)

1.23.1 Civil Aviation Authority of Nepal will appoint a Civil Aviation Medical Assessor (CAMA).

1.23.2 The minimum qualifications for the CAMA shall be as following:

a) Medical graduate or MBBS certificate;
b) Registration in Nepal Medical Council
c) Post-graduate MD (Internal Medicine or General Practice) or equivalent
d) Advanced training in Aviation Medicine of 120 hours or equivalent and evidence of experience of at least two years practice as a DME; or Advanced training in Aviation Medicine of 60 hours or equivalent and evidence of experience of at least five years as a DME.

1.23.3 The desirable qualifications will be as following:

a) Familiarisation Training in Aircraft Accident investigation
b) Familiarisation Training in ICAO Annex -1 and ICAO USOAP Training
c) Civil Aviation and related regulatory courses

1.23.4The Aviation Medical Assessor will scrutinize the findings recorded in the Medical Forms, Attachment 1, and make an assessment and recommendation to the Licensing and Examination Division. The DME and SMEs may also inform the applicant of the presence of any risk factors or early warning signs of disease which do not clearly fall below the prescribed standards and advise them to take preventive measures.

1.23.5 The Civil Aviation Medical Assessor also deals with related matters regarding medical examination and assessment of the applicants or licence holders.

1.23.6 The CAMA may also act as a DME within their specialty but must ensure that any potential conflict of interest is avoided.

1.23.7 The CAMA will help organise, and participate in, DME and SME orientation and training programmes including refresher training in Aviation Medicine. They shall arrange visits in towers and cockpit with the help of CAAN to orient and familiarize the CAMEs and DMEs with aviation medicine and working environments.

1.23.8 The CAMA will monitor and assess the performance of DMEs and SMEs and will report to CAAN any need of enforcement action if situation so demands during the inspection or surveillance.

1.23.9 The CAMA will also advise the Director General of CAAN in Aviation matters related to health and safety.

1.23.10 To gain practical knowledge and experience of the conditions in which the licence holders carry out their duties, CAMA will acquire flight deck experience of at least ten hours per year in aircraft engaged in commercial operation as well as experience in the operational working conditions of air traffic controllers.

1.23.11 CAMA shall attend Domestic/International Aviation Medicine scientific meetings, conferences or courses periodically. Preference will be given to meetings, conferences or courses which are recognized as refresher training by ICAO/EASA/FAA. The cost for attending such meetings, conferences or courses will be borne by CAAN as required.

## 1.24 MEDICAL ASSESSMENT CLASSES

1.24.1 The Medical Assessment Classes are three viz. I,II and III. The applicant must pass the respective medical assessment class and be certified medically depending on the type of licences, as tabulated here.

| Medical Assessment Class | Type of Licences |
|---|---|
| **I** | Commercial Pilot<br>Multi crew Pilot<br>Airline Transport Pilot |
| **II** | Private Pilot<br>Microlight Pilot<br>Free Balloon Pilot<br>Glider Pilot<br>Ultra-Light Pilot<br>Flight engineer |
| **III** | Air Traffic Controller |

## 1.25 VALIDITY PERIOD OF MEDICAL ASSESSMENT

1.25.1 The validity period of a medical assessment varies with the type of licence and age of the crew member. For the initial issue it begins on the day of the medical assessment and ends on the last day of the preceding calendar month of the validity period.

1.25.2 In case of renewal of a licence, the medical examination and assessment is done during the last month of the validity period of the licence. The validity period of the medical assessment will be for the period of remaining days of that month, plus 6 or 12 or 24 calendar months as determined by 1.26 below.

## 1.26 MEDICAL VALIDITY

### 1.26.1 Period of Medical Validity and Validity of Licence

1.26.1.1A medical assessment issued shall be valid from the date of the medical examination for a period not greater than:

a) 60 months for the Private Pilot Licence – aeroplane, airship, helicopter and powered-lift;

b) 12 months for the Commercial Pilot Licence – aeroplane, airship, helicopter, and powered-lift;

c) 12 months for the Multi-crew Pilot Licence – aeroplane;

d) 12 months for the Airline Transport Pilot Licence – aeroplane, helicopter and powered-lift;

e) 24 months for the Ultra-light Pilot Licence;

f) 24 months for the Glider Pilot Licence;

g) 24 months for the Free Balloon Pilot Licence;

h) 24 months for the Flight Engineer Licence;

i) 48 months for the Air Traffic Controller Licence;

1.26.1.2 As per section 1.18 above, the period of validity of a Medical Assessment may be extended, at the discretion of the Civil Aviation Authority of Nepal, up to 45 days (as per Annex 1 and PeLR 1.19.3)

1.26.1.3 The period of validity will, for the last month counted, include the day that has the same calendar number as the date of the medical examination or, if that month has no day with that number, the last day of that month.

1.26.1.4 The period of validity of a medical assessment shall be reduced when clinically indicated.

### 1.26.2 REDUCTION OF MEDICAL VALIDITY WITH AGE

1.26.2.1 When the holders of Airline Transport Pilot Licences, Commercial Pilot Licences and Multi-Crew Pilot Licences, who are engaged in commercial air transport operations, have passed their 60th birthday, the period of validity shall be reduced to six months.

1.26.2.2 When the holders of Airline Transport Pilot Licences and Commercial Pilot Licences — aeroplane, helicopter, powered-lift and airship, who are engaged in single-crew commercial air transport operations carrying passengers, have passed their 40th birthday, the period of validity shall be reduced to six months.

1.26.2.3When the holders of Private Pilot Licences — aeroplane, helicopter, powered-lift, airship, Glider Pilot Licences, Free Balloon Pilot Licences, and Air Traffic Controller Licences have passed their 50th birthday, the period of validity shall be reduced to 12 months. (the periods of validity listed above are based on the age of the applicant at the time of undergoing the medical examination)

### 1.26.3 THE 60-65 YEARS RULE

- Permission to act as flight crew is also dependent on the age provisions set out in Personnel Licensing Requirements.
- Prescribed medical and licensing restrictions shall apply.

### 1.27 AGE

The minimum age for various licences shall be as per the applicable class of licence as defined in PELR.

## 1.28 HEIGHT

As a rule, no height will bar the applicant from obtaining a licence. However, in cases an actual test in the cockpit regarding accessibility and manoeuvrability of controls and instruments with seat adjustments will be tested before assessing an applicant as 'fit'.

## 1.29 WEIGHT

As a rule, no weight will bar the applicant from obtaining a licence. However, those with excessive weight or who are obese i.e. Body Mass Index [BMI = weight (kg)/height ($m^2$)]> 30, will be discouraged from taking up the flying profession especially if the family has a history of diabetes, coronary artery disease or hypertension. In grossly obese (BMI > 40) cases an actual test in the cockpit regarding accessibility and manoeuvrability of controls and instruments with seat adjustments will be tested before assessing an applicant as 'fit'.

# PART 2

# MEDICAL STANDARDS FOR LICENSING REQUIREMENTS

# PART 2 MEDICAL STANDARDS FOR LICENCING REQUIREMENTS-

This part sets medical standards for licensing requirements.

**2.1 Medical Assessments — General**

2.1.1 Classes of Medical Assessment
Medical Assessment are established as follows:

a) Class 1 Medical Assessment; applies to applicants for, and holders of:
— Commercial pilot licences — aeroplane, airship, helicopter and powered-lift

— Multi-crew pilot licences — aeroplane

— Airline transport pilot licences — aeroplane, helicopter and powered-lift

b) Class 2 Medical Assessment; applies to applicants for, and holders of:

— Flight navigator licences

— Flight engineer licences

— Private pilot licences — aeroplane, airship, helicopter and powered-lift

— Glider pilot licences

— Free balloon pilot licences
— Ultralight Pilot licences

c) Class 3 Medical Assessment; applies to applicants for, and holders of:
— Air traffic controller licences.

2.1.2 The applicant for a Medical Assessment shall provide the medical examiner with a personally certified statement of medical facts concerning personal, familial and hereditary history. The applicant shall be made aware of the necessity for giving a statement that is as complete and accurate as the applicant‘s knowledge permits, and any false statement shall be dealt with in accordance with Aviation Enforcement Procedure Manual (AEPM).

2.1.3 The DME shall report to the Civil Aviation Authority of Nepal any individual case where, in the examiner‘s judgement, an applicant‘s failure to meet any requirement, whether numerical or otherwise, is such that exercise of the privileges of the licence being applied for, or held, is not likely to jeopardise flight safety.

2.1.4 The level of medical fitness to be met for the renewal of a Medical Assessment shall be the same as that for the initial assessment except where otherwise specifically stated.

**2.2 Requirements for Medical Assessments**

2.2.1 General
An applicant for a Medical Assessment shall undergo a medical examination based on the following requirements:
a) physical and mental;

b) visual and colour perception; and

c) hearing.

2.2.2 Physical and mental requirements
An applicant for any class of Medical Assessment shall be required to be free from:
a) any abnormality, congenital or acquired; or

b) any active, latent, acute or chronic disability; or
c) any wound, injury or sequelae from operation; or

d) any effect or side-effect of any prescribed or non-prescribed therapeutic, diagnostic or preventive medication taken;

2.2.3 Visual acuity test requirements

2.2.3.1 The methods in use for the measurement of visual acuity are likely to lead to differing evaluations. To achieve uniformity, therefore, Medical Assessor shall ensure that equivalence in the methods of evaluation be obtained.

2.2.4 Colour perception requirements

2.2.4.1 Civil Aviation Authority of Nepal shall use such methods of examination as will guarantee reliable testing of colour perception.

2.2.4.2 The applicant shall be required to demonstrate the ability to perceive readily those colours the perception of which is necessary for the safe performance of duties.

2.2.4.3 The applicant shall be tested for the ability to correctly identify a series of pseudoisochromatic plates in daylight or in artificial light of the same colour temperature such as that provided by CIE standard illuminants C or D65 as specified by the International Commission on Illumination (CIE).

2.2.4.4 An applicant obtaining a satisfactory result as prescribed by the Civil Aviation Authority of Nepal shall be assessed as fit. An applicant failing to obtain a satisfactory result in such a test shall be assessed as unfit unless able to readily distinguish the colours used in air navigation and correctly identify aviation coloured lights. Applicants who fail to meet these criteria shall be assessed as unfit except for Class 2 assessment with the following restriction: valid daytime only.

2.2.4.4.1Sunglasses worn during the exercise of the privileges of the licence or rating held should be non-polarizing and of a neutral grey tint.

2.2.5 Hearing test requirements

2.2.5.1 Civil Aviation Authority of Nepal shall use such methods of examination as will guarantee reliable testing of hearing.

2.2.5.2 Applicants shall be required to demonstrate a hearing performance sufficient for the safe exercise of their licence and rating privileges.

2.2.5.3 Applicants for Class 1 Medical Assessments shall be tested by pure-tone audiometry at first issue of the Assessment, not less than once every five years up to the age of 40 years, and thereafter not less than once every two years.

2.2.5.3.1 Alternatively, other methods providing equivalent results may be used.

2.2.5.4 Applicants for Class 3 Medical Assessments shall be tested by pure-tone audiometry at first issue of the Assessment, not less than once every four years up to the age of 40 years, and thereafter not less than once every two years.

2.2.5.4.1 Alternatively, other methods providing equivalent results may be used.

2.2.5.4.2 Applicants for Class 2 Medical Assessment should be tested by pure-tone audiometry at first issue of the Assessment and, after the age of 50 years, not less than once every two years.

2.2.5.6 At medical examinations where audiometry is not performed, applicants shall be tested in a quiet room by whispered and spoken voice tests.

*Note 1. — The reference zero for calibration of pure-tone audiometers is that of the pertinent Standards of the current edition of the Audiometric Test Methods, published by the International Organization for Standardization (ISO).*

*Note 2.— For the purpose of testing hearing in accordance with the requirements, a quiet room is a room in which the intensity of the background noise is less than 35 dB(A).*

*Note 3.— For the purpose of testing hearing in accordance with the requirements, the sound level of an average conversational voice at 1 m from the point of output (lower lip of the speaker) is c. 60 dB(A) and that of a whispered voice c. 45dB(A). At 2 m from the speaker, the sound level is 6 dB(A) lower.*

*Note 4.— Guidance on assessment of applicants who use hearing aids is contained in the* Manual of Civil Aviation Medicine *(Doc 8984).*

| Class 1 Medical Assessment (C1) | Class 2 Medical Assessment (C2) | Class 3 Medical Assessment (C3) |
|---|---|---|
| **C1 Assessment issue and renewal**<br>C1.1 An applicant for a commercial pilot licence — aeroplane, airship, helicopter or powered-lift, a multi-crew pilot licence — aeroplane, or an airline transport pilot licence — aeroplane, helicopter or powered-lift shall undergo an initial medical examination for the issue of a Class 1 Medical Assessment.<br><br>C1.1.2.Except where otherwise stated in this section, holders of commercial pilot licences — aeroplane, airship, helicopter or powered-lift, multi-crew pilot licences — aeroplane, or airline transport pilot licences — aeroplane, helicopter or powered-lift will have their Class 1 Medical Assessments renewed at intervals not exceeding those specified in 1.26. | **C2 Assessment issue and renewal**<br>C2.1 An applicant for a private pilot licence — aeroplane, airship, helicopter or powered-lift, a glider pilot licence, a free balloon pilot licence, UPL, a flight engineer licence or a flight navigator licence shall undergo an initial medical examination for the issue of a Class 2 Medical Assessment.<br><br>C2.1.2 Except where otherwise stated in this section, holders of private pilot licences — aeroplane, airship, helicopter or powered-lift, glider pilot licences, free balloon pilot licences, flight engineer licences or flight navigator licences shall have their Class 2 Medical Assessments renewed at intervals not exceeding those specified in 1.26. | **C3. Assessment issue and renewal**<br>C3.1 An applicant for an air traffic controller licence shall undergo an initial medical examination for the issue of a Class 3 Medical Assessment.<br><br>C3.1.2 Except where otherwise stated in this section, holders of air traffic controller licences shall have their Class 3 Medical Assessments renewed at intervals not exceeding those specified in 1.26. |
| C1.1.3 When the medical assessor is satisfied that the requirements of this section and the general provisions have been met, a Class 1 Medical Assessment may be issued to the applicant. | C2.1.3 When the medical assessor is satisfied that the requirements of this section and the general provisions have been met, a Class 2 Medical Assessment may be issued to the applicant. | C3.1.3 When the medical assessor is satisfied that the requirements of this section and the general provisions have been met, a Class 3 Medical Assessment may be issued to the applicant |

| C1.1.4Physical and mental requirements<br>The medical examination for a class 1 Medical Assessment shall be based on the following requirements. | C2.1.4Physical and mental requirements<br>The medical examination for a class 2 Medical Assessment shall be based on the following requirements. | C3.1.4Physical and mental requirements<br>The medical examination for a class 3 Medical Assessment shall be based on the following requirements. |
|---|---|---|
| **General**<br>C1.2 The applicant shall not suffer from any disease or disability which could render that applicant likely to become suddenly unable either to operate an aircraft safely or to perform assigned duties safely. | **General**<br>C2.2 The applicant shall not suffer from any disease or disability which could render that applicant likely to become suddenly unable either to operate an aircraft safely or to perform assigned duties safely. | **General**<br>C3.2 The applicant shall not suffer from any disease or disability which could render that applicant likely to become suddenly unable to perform duties safely. |
| **Mental health and behavioural**<br>C1.3 The applicant shall have no established medical history or clinical diagnosis of:<br>a) an organic mental disorder;<br>b) a mental or behavioural disorder due to use of psychoactive substances; this includes dependence syndrome induced by alcohol or other psychoactive substances;<br>c) schizophrenia or a schizotypal or delusional disorder;<br>d) a mood (affective) disorder;<br>e) a neurotic, stress-related or somatoform disorder;<br>f) a behavioural syndrome associated with physiological disturbances or physical factors;<br>g) a disorder of adult personality or behaviour, particularly if manifested by repeated overt acts; | **Mental health and behavioural**<br>C2.3 The applicant shall have no established medical history or clinical diagnosis of:<br>a) an organic mental disorder;<br>b) a mental or behavioural disorder due to psychoactive substance use; this includes dependence syndrome induced by alcohol or other psychoactive substances;<br>c) schizophrenia or a schizotypal or delusional disorder;<br>d) a mood (affective) disorder;<br>e) a neurotic, stress-related or somatoform disorder;<br>f) a behavioural syndrome associated with physiological disturbances or physical factors;<br>g) a disorder of adult personality or behaviour, particularly if manifested by repeated overt acts; | **Mental health and behavioural**<br>C3.3 The applicant shall have no established medical history or clinical diagnosis of:<br>a) an organic mental disorder;<br>b) a mental or behavioural disorder due to psychoactive substance use; this includes dependence syndrome induced by alcohol or other psychoactive substances;<br>c) schizophrenia or a schizotypal or delusional disorder;<br>d) a mood (affective) disorder;<br>e) a neurotic, stress-related or somatoform disorder;<br>f) a behavioural syndrome associated with physiological disturbances or physical factors;<br>g) a disorder of adult personality or behaviour, particularly if manifested by repeated overt acts; |
| h) mental retardation;<br>i) a disorder of psychological development;<br>j) a behavioural or emotional disorder, with | h) mental retardation;<br>i) a disorder of psychological development;<br>j) a behavioural or emotional disorder, with | h) mental retardation;<br>i) a disorder of psychological development;<br>j) a behavioural or emotional disorder, with |

| | | |
|---|---|---|
| onset in childhood or adolescence; or<br>k) a mental disorder not otherwise specified;<br><br>such as might render the applicant unable to safely exercise the privileges of the licence applied for or held.<br><br>C1.3.1 An applicant with depression, being treated with antidepressant medication, should be assessed as unfit unless the medical assessor, having access to the details of the case concerned, considers the applicant's condition as unlikely to interfere with the safe exercise of the applicant's licence and rating privileges.<br><br>Note 1.— Guidance on assessment of applicants treated with antidepressant medication is contained in the ICAO Manual of Civil Aviation Medicine (Doc 8984).<br><br>Note 2.— Mental and behavioural disorders are defined in accordance with the clinical descriptions and diagnostic guidelines of the World Health Organization as given in the International Statistical Classification of Diseases and Related Health Problems, 10th Edition — Classification of Mental and Behavioural Disorders, WHO 1992. This document contains detailed descriptions of the diagnostic requirements, which may be useful for their application to medical assessment. | onset in childhood or adolescence; or<br>k) a mental disorder not otherwise specified;<br><br>such as might render the applicant unable to safely exercise the privileges of the licence applied for or held.<br><br>C2.3.1 An applicant with depression, being treated with antidepressant medication, should be assessed as unfit unless the medical assessor, having access to the details of the case concerned, considers the applicant's condition as unlikely to interfere with the safe exercise of the applicant's licence and rating privileges<br><br>Note 1.— Guidance on assessment of applicants treated with antidepressant medication is contained in the ICAO Manual of Civil Aviation Medicine (Doc 8984).<br><br>Note 2.— Mental and behavioural disorders are defined in accordance with the clinical descriptions and diagnostic guidelines of the World Health Organization as given in the International Statistical Classification of Diseases and Related Health Problems, 10th Edition — Classification of Mental and Behavioural Disorders, WHO 1992. This document contains detailed descriptions of the diagnostic requirements, which may be useful for their application to medical assessment. | onset in childhood or adolescence; or<br>k) a mental disorder not otherwise specified;<br><br>such as might render the applicant unable to safely exercise the privileges of the licence applied for or held<br><br>C3.3.1 An applicant with depression, being treated with antidepressant medication, should beassessed as unfit unless the medical assessor, having access to the details of the case concerned, considers the applicant's condition as unlikely to interfere with the safe exercise of the applicant's licence and rating privileges.<br><br>Note 1.— Guidance on assessment of applicants treated with antidepressant medication is contained in the ICAO Manual of Civil Aviation Medicine (Doc 8984).<br><br>Note 2.— Mental and behavioural disorders are defined in accordance with the clinical descriptions and diagnostic guidelines of the World Health Organization as given in the International Statistical Classification of Diseases and Related Health Problems, 10th Edition — Classification of Mental and Behavioural Disorders, WHO 1992. This document contains detailed descriptions of the diagnostic requirements, which may be useful for their application to medical assessment. |

| Neurological | Neurological | Neurological |
|---|---|---|
| C1.4 The applicant shall have no established medical history or clinical diagnosis of any of the following:<br>a) a progressive or non-progressive disease of the nervous system, the effects of which are likely to interfere with the safe exercise of the applicant's licence and rating privileges;<br>b) epilepsy; or<br>c) any disturbance of consciousness without satisfactory medical explanation of cause.<br><br>C1.4.1 The applicant shall not have suffered any head injury, the effects of which are likely to interfere with the safe exercise of the applicant's licence and rating privileges. | C2.4 The applicant shall have no established medical history or clinical diagnosis of any of the following:<br>a) a progressive or non-progressive disease of the nervous system, the effects of which are likely to interfere with the safe exercise of the applicant's licence and rating privileges;<br>b) epilepsy;<br>c) any disturbance of consciousness without satisfactory medical explanation of cause.<br><br>C2.4.1 The applicant shall not have suffered any head injury, the effects of which are likely to interfere with the safe exercise of the applicant's licence and rating privileges. | C3.4 The applicant shall have no established medical history or clinical diagnosis of any of the following:<br>a) a progressive or non-progressive disease of the nervous system, the effects of which are likely to interfere with the safe exercise of the applicant's licence and rating privileges;<br>b) epilepsy; or<br>c) any disturbance of consciousness without satisfactory medical explanation of cause.<br><br>C3.4.1 The applicant shall not have suffered any head injury, the effects of which are likely to interfere with the safe exercise of the applicant's licence and rating privileges. |

| Cardiovascular | Cardiovascular | Cardiovascular |
|---|---|---|
| C1.5 The applicant shall not possess any abnormality of the heart, congenital or acquired, which is likely to interfere with the safe exercise of the applicant's licence and rating privileges. | C2.5 The applicant shall not possess any abnormality of the heart, congenital or acquired, which is likely to interfere with the safe exercise of the applicant's licence and rating privileges. | C3.5 The applicant shall not possess any abnormality of the heart, congenital or acquired, which is likely to interfere with the safe exercise of the applicant's licence and rating privileges. |
| C1.5.1An applicant who has undergone coronary bypass grafting or angioplasty (with or without stenting) or other cardiac intervention or who has a history of myocardial infarction or who suffers from any other potentially incapacitating cardiac condition shall be assessed as unfit unless the applicant's cardiac condition has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges. | C2.5.1An applicant who has undergone coronary by-pass grafting or angioplasty (with or without stenting) or other cardiac intervention or who has a history of myocardial infarction or who suffers from any other potentially incapacitating cardiac condition shall be assessed as unfit unless the applicant's cardiac condition has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges. | C3.5.1An applicant who has undergone coronary bypass grafting or angioplasty (with or without stenting) or other cardiac intervention or who has a history of myocardial infarction or who suffers from any other potentially incapacitating cardiac condition shall be assessed as unfit unless the applicant's cardiac condition has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence and rating privileges. |
| C1.5.2An applicant with an abnormal cardiac rhythm shall be assessed as unfit unless the cardiac arrhythmia has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges. | C2.5.2An applicant with an abnormal cardiac rhythm shall be assessed as unfit unless the cardiac arrhythmia has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence or rating privileges. | C3.5.2An applicant with an abnormal cardiac rhythm shall be assessed as unfit unless the cardiac arrhythmia has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant's licence and rating privileges. |
| Note. — Guidance on cardiovascular evaluation is contained in the ICAO Manual of Civil Aviation Medicine (Doc 8984). | Note. — Guidance on cardiovascular evaluation is contained in the ICAO Manual of Civil Aviation Medicine (Doc 8984). | Note. — Guidance on cardiovascular evaluation is contained in the ICAO Manual of Civil Aviation Medicine (Doc 8984). |
| C1.5.3Electrocardiography shall form part of the heart examination for the first issue of a Medical Assessment. | C2.5.3Electrocardiography shall form part of the heart examination for the first issue of a Medical Assessment | C3.5.3Electrocardiography shall form part of the heart examination for the first issue of a Medical Assessment. |
| C1.5.4Electrocardiographyshall be included in re-examinations of applicants over the age of 40 no less frequently than annually | C2.5.4Electrocardiography shall be included in re-examinations of applicants after the age of 40 no less frequently than every two years. | C3.5.4Electrocardiography shall be included in re-examinations of applicants after the age of 40 no less frequently than every two years. |
| C1.5.5 Electrocardiography should be included in | | Note 1. — The purpose of routine |

| | | |
|---|---|---|
| re-examinations of applicants between the ages of 30 and 40 no less frequently than every two years<br><br>Note 1. — The purpose of routine electrocardiography is case finding. It does not provide sufficient evidence, in isolation, to justify an ‗unfit' medical assessment. The results of further cardiovascular examination and / or investigation should be considered before any Medical Assessment decision is based on an abnormal routine electrocardiography result.<br><br>Note 2. — Guidance on resting and exercise electro-cardiography is contained in the ICAO Manual of Civil Aviation Medicine (Doc 8984).<br><br>C1.5.6 The systolic and diastolic blood pressures shall be within normal limits.<br><br>C1.5.7 The use of drugs for control of high blood pressure shall be disqualifying except for those drugs, the use of which is compatible with the safe exercise of the applicant's licence and rating privileges.<br><br>Note. — Guidance on the subject is contained in the ICAO Manual of Civil Aviation Medicine (Doc 8984).<br>C1.5.8There shall be no significant functional or structural abnormality of the circulatory system. | C2.5.5Electrocardiography shall form part of the heart examination for the first issue of a Medical Assessment after the age of 40.<br><br>Note 1. — The purpose of routine electrocardiography is case finding. It does not provide sufficient evidence, in isolation, to justify an ‗unfit' medical assessment. The results of further cardiovascular examination and / or investigation Note 2.— Guidance on resting and exercise should be considered before any Medical electrocardiography is contained in the ICAO Assessment decision is based on an abnormal Manual of Civil Aviation Medicine (Doc 8984). routine electrocardiography result.<br><br>Note 2. — Guidance on resting and exercise electrocardiography is contained in the ICAO Manual of Civil Aviation Medicine (Doc 8984).<br><br>C2.5.6The systolic and diastolic blood pressures shall be within normal limits.<br><br>C2.5.7The use of drugs for control of high blood pressure shall be disqualifying except for those drugs, the use of which is compatible with the safe exercise of the applicant's licence and rating privileges.<br><br>Note. — Guidance on the subject is contained in the ICAO Manual of Civil Aviation Medicine (Doc 8984).<br>C2.5.8 There will be no significant functional or structural abnormality of the circulatory system. | electrocardiography is case finding. It does not provide sufficient evidence, in isolation, to justify an ‗unfit' medical assessment. The results of further cardiovascular examination and / or investigation should be considered before any Medical Assessment decision is based on an abnormal routine electrocardiography result.<br><br>C3.5.6The systolic and diastolic blood pressures shall be within normal limits.<br><br>C3.5.7The use of drugs for control of high blood pressure shall bedisqualifyingexcept for those drugs, the use of which is compatible with the safe exercise of the applicant's licence privileges.<br><br>Note. — Guidance on this subject is contained in the ICAO Manual of Civil Aviation Medicine (Doc 8984).<br><br>C3.5.8There shall be no significant functional or structural abnormality of the circulatory system. |

| Respiratory | Respiratory | Respiratory |
|---|---|---|
| C1.6 There shall be no acute disability of the lungs or any active disease of the structures of the lungs, mediastinum or pleurae likely to result in incapacitating symptoms during normal or emergency operations. | C2.6 There shall be no disability of the lungs or any active disease of the structures of the lungs, mediastinum or pleura likely to result in incapacitating symptoms during normal or emergency operations. | C3.6 There shall be no disability of the lungs or any active disease of the structures of the lungs, mediastinum or pleurae likely to result in incapacitating symptoms. |
| C1.6.1 Chest radiography shall form part of the initial examination only. It may be otherwise advised when asymptomatic pulmonary disease can be expected. | C2.6.1Chest radiography shall form part of the initial examination only. It may be otherwise advised when asymptomatic pulmonary disease can be expected. | C3.6.1Chest radiography shall form part of the initial examination only. It may be otherwise advised when asymptomatic pulmonary disease can be expected. |
| C1.6.2 Applicants with chronic obstructive pulmonary disease shall be assessed as unfit unless the applicant‘s condition has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant‘s licence or rating privileges. | C2.6.2 Applicants with chronic obstructive pulmonary disease shall be assessed as unfit unless the applicant‘s condition has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant‘s licence or rating privileges. | C3.6.2 Applicants with chronic obstructive pulmonary disease shall be assessed as unfit unless the applicant‘s condition has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant‘s licence or rating privileges. |
| C1.6.3 Applicants with asthma causing significant symptoms or likely to cause incapacitating symptoms during normal or emergency operations shall be assessed as unfit. | C2.6.3 Applicants with asthma causing significant symptoms or likely to cause incapacitating symptoms during normal or emergency operations shall be assessed as unfit. | C3.6.3 Applicants with asthma causing significant symptoms or likely to cause incapacitating symptoms shall be assessed as unfit. |
| C1.6.4The use of drugs for control of asthma will be disqualifying except for those drugs, the use of which is compatible with the safe exercise of the applicant‘s licence and rating privileges. | C2.6.4The use of drugs for control of asthma will be disqualifying except for those drugs, the use of which is compatible with the safe exercise of the applicant‘s licence and rating privileges. | C3.6.4The use of drugs for control of asthma shall be disqualifying except for those drugs, the use of which is compatible with the safe exercise of the applicant‘s licence and rating privileges. |
| Note. — Guidance on hazards of medication and drugs is contained in the ICAO Manual of Civil Aviation Medicine (Doc 8984). | Note. — Guidance on hazards of medication and drugs is contained in the ICAO Manual of Civil Aviation Medicine (Doc 8984). | Note. — Guidance on hazards of medications is contained in the ICAO Manual of Civil Aviation Medicine (Doc 8984). |
| C1.6.5 Applicants with active pulmonary tuberculosis shall be assessed as unfit. | C2.6.5 Applicants with active pulmonary tuberculosis shall be assessed as unfit. | C3.6.5 Applicants with active pulmonary tuberculosis will be assessed as unfit. |
| C1.6.6Applicants with quiescent or healed lesions | C2.6.6Applicants with quiescent or healed lesions, | C3.6.6Applicants with quiescent or healed lesions, |

| | | |
|---|---|---|
| which are known to be tuberculous, or are presumably tuberculous in origin, may be assessed as fit.<br>Note 1.— Guidance on assessment of respiratory diseases is contained in the ICAO Manual of Civil Aviation Medicine (Doc 8984).<br>Note 2.— Guidance on hazards of medications and drugs is contained in the ICAO Manual of Civil Aviation Medicine (Doc 8984). | known to be tuberculous or presumably tuberculous in origin, may be assessed as fit.<br>Note 1.— Guidance on assessment of respiratory diseases is contained in the ICAO Manual of Civil Aviation Medicine (Doc 8984).<br>Note 2. — Guidance on hazards of medication and drugs is contained in the ICAO Manual of Civil Aviation Medicine (Doc 8984). | known to be tuberculous or presumably tuberculous in origin, may be assessed as fit.<br>Note 1. — Guidance on assessment of respiratory diseases is contained in the ICAO Manual of Civil Aviation Medicine (Doc 8984).<br>Note 2. — Guidance on hazards of medication and drugs is contained in the ICAO Manual of Civil Aviation Medicine (Doc 8984). |

| Gastrointestinal | Gastrointestinal | Gastrointestinal |
|---|---|---|
| C1.7 Applicants with significant impairment of function of the gastrointestinal tract or its adnexa shall be assessed as unfit.<br><br>C1.7.1 Applicants shall be completely free from those hernias that might give rise to incapacitating symptoms.<br><br>C1.7.2 Applicants with sequelae of disease of, or surgical intervention on, any part of the digestive tract or its adnexa, likely to cause incapacitation in flight, in particular any obstruction due to stricture or compression, will be assessed as unfit.<br><br>C1.7.3 An applicant who has undergone a major surgical operation on the biliary passages or the digestive tract or its adnexa with a total or partial excision or a diversion of any of these organs should be assessed as unfit until such time as the medical assessor, having access to the details of the operation concerned, considers that the effects of the operation are not likely to cause incapacitation in flight. | C2.7 Applicants with significant impairment of function of the gastrointestinal tract or its adnexa shall be assessed as unfit.<br><br>C2.7.1 Applicants shall be completely free from those hernias that might give rise to incapacitating symptoms.<br>C2.7.2 Applicants with sequelaeof disease of or surgical intervention on any part of the digestive tract or its adnexa, likely to cause incapacitation in flight, in particular any obstruction due to stricture or compression, shall be assessed as unfit.<br><br>C2.7.3 An applicant who has undergone a major surgical operation on the biliary passages or the digestive tract or its adnexa with a total or partial excision or a diversion of any of these organs should be assessed as unfit until such time as the medical assessor, having access to the details of the operation concerned, considers that the effects of the operation are not likely to cause incapacitation in flight. | C3.7 Applicants with significant impairment of function of the gastrointestinal tract or its adnexa shall be assessed as unfit.<br><br>C3.7.1 Reserved<br><br>C3.7.2 Applicants with sequelae of disease of or surgical intervention on any part of the digestive tract or its adnexa, likely to cause incapacitation, in particular any obstructions due to stricture or compression, shall be assessed as unfit.<br><br>C3.7.3 An applicant who has undergone a major surgical operation on the biliary passages or the digestive tract or its adnexa, with a total or partial excision or a diversion of any of these organs should be assessed as unfit until such time as the medical assessor, having access to the details of the operation concerned, considers that the effects of the operation are not likely to cause incapacitation. |

| | | |
|---|---|---|
| **Metabolic, nutritional, and endocrine** | **Metabolic, nutritional, and endocrine** | **Metabolic, nutritional, and endocrine** |
| C1.8 Applicants with metabolic, nutritional or endocrine disorders that are likely to interfere with the safe exercise of their licence and rating privileges shall be assessed as unfit. | C2.8 Applicants with metabolic, nutritional or endocrine disorders that are likely to interfere with the safe exercise of their licence and rating privileges shall be assessed as unfit. | C3.8 Applicants with metabolic, nutritional or endocrine disorders that are likely to interfere with the safe exercise of their licence and rating privileges shall be assessed as unfit. |
| C1.8.1 Applicants with insulin-treated diabetes mellitus shall be assessed as unfit. | C2.8.1 Applicants with insulin-treated diabetes mellitus shall be assessed as unfit. | C3.8.1 Applicants with insulin-treated diabetes mellitus shall be assessed as unfit. |
| Note. — Guidance on assessment of insulin treated diabetic applicants under the provisions of C1.8.1 is contained in the ICAO Manual of Civil Aviation Medicine (Doc 8984). | Note. — Guidance on assessment of insulin treated diabetic applicants under the provisions of C2.8.1 is contained in the ICAO Manual of Civil Aviation Medicine (Doc 8984). | Note. — Guidance on assessment of insulin treated diabetic applicants under the provisions of C2.8.1 is contained in the ICAO Manual of Civil Aviation Medicine (Doc 8984). |
| C1.8.2Applicants with non-insulin-treated diabetes mellitus shall be assessed as unfit unless the condition is shown to be satisfactorily controlled by diet alone or by diet combined with oral anti-diabetic medication, the use of which is compatible with the safe exercise of the applicant‘s licence and rating privileges. | C2.8.2Applicants with non-insulin-treated diabetes mellitus shall be assessed as unfit unless the condition is shown to be satisfactorily controlled by diet alone or by diet combined with oral anti-diabetic medication, the use of which is compatible with the safe exercise of the applicant‘s licence and rating privileges. | C3.82Applicants with non-insulin-treated diabetes shall be assessed as unfit unless the condition is shown to be satisfactorily controlled by diet alone or by diet combined with oral anti-diabetic medication, the use of which is compatible with the safe exercise of the applicant‘s licence and rating privileges. |
| Note. — Guidance on assessment of diabetic applicants is contained in the ICAO Manual of Civil Aviation Medicine (Doc 8984). | Note. — Guidance on assessment of diabetic applicants is contained in the ICAO Manual of Civil Aviation Medicine (Doc 8984). | Note. — Guidance on assessment of diabetic applicants is contained in the ICAO Manual of Civil Aviation Medicine (Doc 8984). |
| **Blood and lymphatic** | **Blood and lymphatic** | **Blood and lymphatic** |
| C1.9Applicants with diseases of the blood and/or the lymphatic system shall be assessed as unfit unless adequately investigated and their condition found unlikely to interfere with the safe exercise of their licence and rating privileges. | C2.9 Applicants with diseases of the blood and/or the lymphatic system shall be assessed as unfit unless adequately investigated and their condition found unlikely to interfere with the safe exercise of their licence and rating privileges. | C3.9 Applicants with diseases of the blood and/or the lymphatic system shall be assessed as unfit, unless adequately investigated and their condition found unlikely to interfere with the safe exercise of their licence and rating privileges. |
| Note.—Sickle cell trait or other haemoglobinopathic traits are usually compatible with a fit assessment. | Note. — Sickle cell trait and other haemoglobinopathic traits are usually compatible with a fit assessment. | Note. — Sickle cell trait and other haemoglobinopathic traits are usually compatible with a fit assessment. |

| | | |
|---|---|---|
| **Renal and Genito-urinary** | **Renal and Genito-urinary** | **Renal and Genito-urinary** |
| C1.10 Applicants with renal or genito-urinary disease shall be assessed as unfit, unless adequately investigated and their condition found unlikely to interfere with the safe exercise of their licence and rating privileges. | C2.10 Applicants with renal or genito-urinary disease shall be assessed as unfit unless adequately investigated and their condition found unlikely to interfere with the safe exercise of their licence and rating privileges. | C3.10 Applicants with renal or genito-urinary disease shall be assessed as unfit unless adequately investigated and their condition found unlikely to interfere with the safe exercise of their licence and rating privileges. |
| C1.10.1Urine examination shall form part of the medical examination and abnormalities shall be adequately investigated. | C2.10.1Urine examination shall form part of the medical examination and abnormalities will be adequately investigated. | C3.10.1Urine examination will form part of the medical examination and abnormalities will be adequately investigated. |
| Note. — Guidance on urine examination and evaluation of abnormalities is contained in the ICAO Manual of Civil Aviation Medicine (Doc 8984). | Note. — Guidance on urine examination and evaluation of abnormalities is contained in the ICAO Manual of Civil Aviation Medicine (Doc 8984). | Note. — Guidance on urine examination and evaluation of abnormalities is contained in the ICAO Manual of Civil Aviation Medicine (Doc 8984). |
| C1.10.2 Applicants with sequalae of disease of or surgical procedures on the kidneys or the genito-urinary tract, in particular obstructions due to stricture or compression, will be assessed as unfit unless the applicant‘s condition has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant‘s licence or rating privileges. | C2.10.2 Applicants with sequelae of disease of, or surgical procedures on, the kidneys or the genito-urinary tract, in particular obstructions due to stricture or compression, shall be assessed as unfit unless the applicant‘s condition has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant‘s licence or rating privileges. | C3.10.2 Applicants with sequelae of disease of, or surgical procedures on the kidneys or the genito-urinary tract, in particular obstructions due to stricture or compression, shall be assessed as unfit unless the applicant‘s condition has been investigated and evaluated in accordance with best medical practice and is assessed not likely to interfere with the safe exercise of the applicant‘s licence or rating privileges. |
| C1.10.3Applicants who have undergone nephrectomy will be assessed as unfit unless the condition is well compensated. | C2.10.3Applicants who have undergone nephrectomy shall be assessed as unfit unless the condition is well compensated. | C3.10.3Applicants who have undergone nephrectomy shall be assessed as unfit unless the condition is well compensated. |

| Human Immunodeficiency Virus | Human Immunodeficiency Virus | Human Immunodeficiency Virus |
|---|---|---|
| C1.11 Applicants who are seropositive for human immunodeficiency virus (HIV) shall be assessed as unfit unless full investigation provides no evidence of HIV-associated diseases likely to give rise to incapacitating symptoms.<br><br>Note 1. — Early diagnosis and active management of HIV disease with antiretroviral therapy reduces morbidity and improves prognosis and thus increases the likelihood of a fit assessment.<br><br>Note 2. — Guidance on the assessment of applicants who are seropositive for human immunodeficiency virus (HIV) is contained in the ICAO Manual of Civil Aviation Medicine (Doc 8984). | C2.11 Applicants who are seropositive for human immunodeficiency virus (HIV) shall be assessed as unfit unless full investigation provides no evidence of HIV-associated diseases likely to give rise to incapacitating symptoms.<br><br>Note 1. — Early diagnosis and active management of HIV disease with antiretroviral therapy reduces morbidity and improves prognosis and thus increases the likelihood of a fit assessment.<br><br>Note 2. — Guidance on the assessment of applicants who are seropositive for human immunodeficiency virus (HIV) is contained in the ICAO Manual of Civil Aviation Medicine (Doc 8984). | C3.11 Applicants who are seropositive for human immunodeficiency virus (HIV) shall be assessed as unfit unless full investigation provides no evidence of HIV-associated diseases likely to give rise to incapacitating symptoms.<br><br>Note 1. — Early diagnosis and active management of HIV disease with antiretroviral therapy reduces morbidity and improves prognosis and thus increases the likelihood of a fit assessment.<br><br>Note 2. — Guidance on the assessment of applicants who are seropositive for human immunodeficiency virus (HIV) is contained in the ICAO Manual of Civil Aviation Medicine (Doc 8984). |
| **Reproductive**<br>C1.12Applicants with reproductive system disorders that are likely to interfere with the safe exercise of their licence and rating privileges shall be assessed as unfit.<br><br>C1.12.1 Applicants who are pregnant shall be assessed as unfit unless obstetrical evaluation and continued medical supervision indicate a low-risk uncomplicated pregnancy.<br><br>C1.12.2 Reserved<br><br>C1.12.3 Applicants with a low-risk uncomplicated pregnancy shall be evaluated and supervised, and an assessment as fit should be limited to the period from the end of the 12th week until the end of the 26th week of gestation.<br><br>C1.12.4 Following confinement or termination of | **Reproductive**<br>C2.12Applicants with reproductive system disorders that are likely to interfere with the safe exercise of their licence and rating privileges shall be assessed as unfit.<br><br>C2.12.1 Applicants who are pregnant shall be assessed as unfit unless obstetrical evaluation and continued medical supervision indicate a low-risk uncomplicated pregnancy.<br><br>C2.12.2 Reserved<br><br>C2.12.3Applicants with a low-risk uncomplicated pregnancy shall be evaluated and supervised, and an assessment as fit should be limited to the period from the end of the 12th week until the end of the 26th week of gestation. | **Reproductive**<br>C3.12Applicants with reproductive system disorders that are likely to interfere with the safe exercise of their licence and rating privileges shall be assessed as unfit.<br><br>C3.12.1 Applicants who are pregnant shall be assessed as unfit unless obstetrical evaluation and continued medical supervision indicate a low-risk uncomplicated pregnancy.<br><br>C3.12.2During the gestational period, precautions should be taken for the timely relief of an air traffic controller in the event of early onset of labour or other complications.<br><br>C3.12.3. Applicants with a low-risk uncomplicated pregnancy shall be evaluated and supervised, and an assessment as fit should be limited to the period |

| | | |
|---|---|---|
| pregnancy, the applicant shall not be permitted to exercise the privileges of her licence until she has undergone re-evaluation in accordance with best medical practice and it has been determined that she is able to safely exercise the privileges of her licence and ratings. | C2.12.4 Following confinement or termination of pregnancy, the applicant shall not be permitted to exercise the privileges of her licence until she has undergone re-evaluation in accordance with best medical practice and it has been determined that she is able to safely exercise the privileges of her licence and ratings. | from the end of the 12th week until the end of the 26th week of gestation.<br><br>C3.12.4Following confinement or termination of pregnancy the applicant will not be permitted to exercise the privileges of her licence until she has undergone re-evaluation in accordance with best medical practice and it has been determined that she is able to safely exercise the privileges of her licence and ratings. |

| | | |
|---|---|---|
| **Musculoskeletal**<br>C1.13 The applicant shall not possess any abnormality of the bones, joints, muscles, tendons or related structures which is likely to interfere with the safe exercise of the applicant's licence and rating privileges.<br><br>Note. — Any sequelae after lesions affecting the bones, joints, muscles or tendons, and certain anatomical defects will normally require functional assessment to determine fitness. | **Musculoskeletal**<br>C2.13 The applicant shall not possess any abnormality of the bones, joints, muscles, tendons or related structures which is likely to interfere with the safe exercise of the applicant's licence and rating privileges.<br><br>Note. — Any sequelae after lesions affecting the bones, joints, muscles or tendons, and certain anatomical defects will normally require functional assessment to determine fitness. | **Musculoskeletal**<br>C3.13 The applicant shall not possess any abnormality of the bones, joints, muscles, tendons or related structures which is likely to interfere with the safe exercise of the applicant's licence and rating privileges.<br><br>Note. — Any sequelae after lesions affecting the bones, joints, muscles or tendons, and certain anatomical defects will normally require functional assessment to determine fitness. |
| **Ear, nose, and throat**<br>C1.14 The applicant shall not possess any abnormality or disease of the ear or related structures which is likely to interfere with the safe exercise of the applicant's licence and rating privileges.<br><br>C1.14.1There will be:<br>a) no disturbance of vestibular function;<br>b) no significant dysfunction of the Eustachian tubes; and<br>c) no unhealed perforation of the tympanic membranes.<br><br>C1.14.2 A single dry perforation of the tympanic membrane need not render the applicant unfit.<br><br>Note. — Guidance on testing of the vestibular function is contained in ICAO Manual of Civil Aviation Medicine (Doc 8984). | **Ear, nose, and throat**<br>C2.14 The applicant shall not possess any abnormality or disease of the ear or related structures which is likely to interfere with the safe exercise of the applicant's licence and rating privileges.<br><br>C2.14.1 There shall be:<br>a) no disturbance of the vestibular function;<br>b) no significant dysfunction of the Eustachian tubes; and<br>c) no unhealed perforation of the tympanic membranes.<br><br>C2.14.2 A single dry perforation of the tympanic membrane need not render the applicant unfit.<br><br>Note. —Guidance on testing of the vestibular function is contained in the ICAO Manual of Civil Aviation Medicine (Doc 8984). | **Ear, nose, and throat**<br>C3.14 The applicant shall not possess any abnormality or disease of the ear or related structures which is likely to interfere with the safe exercise of the applicant's licence and rating privileges.<br><br>C3.14.1 Reserved<br><br>C3.14.2 Reserved<br><br>C3.14.3 There shall be no malformation or any disease of the nose, buccal cavity or upper respiratory tract which is likely to interfere with the safe exercise of the applicant's licence and rating privileges.<br><br>C3.14.4 Applicants with stuttering or other speech defects sufficiently severe to cause impairment of speech communication shall be assessed as unfit. |

| | | |
|---|---|---|
| C1.14.3 There shall be:<br>a) no nasal obstruction; and<br>b) no malformation nor any disease of the buccal cavity or upper respiratory tract;<br>which is likely to interfere with the safe exercise of the applicant's licence and rating privileges.<br><br>C1.14.4 Applicants with stuttering or other speech defects sufficiently severe to cause impairment of speech communication shall be assessed as unfit. | C2.14.3 There shall be:<br>a) no nasal obstruction; and<br>b) no malformation nor any disease of the .<br><br>buccal cavity or upper respiratory tract;<br>which is likely to interfere with the safe exercise of the applicant's licence and rating privileges.<br><br>C2.14.4 Applicants with stuttering and other speech defects sufficiently severe to cause impairment of speech communication shall be assessed as unfit. | |

## Vision

C1.15 Visual requirements- The medical examination shall be based on the following requirements.

C1.15.1 The function of the eyes and their adnexa shall be normal. There shall be no active pathological condition, acute or chronic, or any sequelae of surgery or trauma of the eyes or their adnexa likely to reduce proper visual function to an extent that would interfere with the safe exercise of the applicant‘s licence and rating privileges.

C1.15.2 Distant visual acuity with or without correction shall be 6/9 or better in each eye separately, and binocular visual acuity will be 6/6 or better. No limits apply to uncorrected visual acuity. Where this standard of visual acuity can be obtained only with correcting lenses, the applicant may be assessed as fit provided that:

a) such correcting lenses are worn during the exercise of the privileges of the licence or rating applied for or held; and

b) an additional pair of suitable correcting spectacles is kept readily available during the exercise of the privileges of the applicant‘s licence.

Note 1.—C1.15.2 b) is the subject of Standards in Annex 6, Part I.

Note 2. — An applicant accepted as meeting these provisions is deemed to continue to do so unless there is reason to suspect otherwise, in which case an ophthalmic report is required at the discretion of the medical assessor. Both uncorrected and corrected visual acuity are normally measured and

## Vision

C2.15Visual requirements- The medical examination shall be based on the following requirements.

C2.15.1 The function of the eyes and their adnexa shall be normal. There shall be no active pathological condition, acute or chronic, or any sequelae of surgery or trauma of the eyes or their adnexa likely to reduce proper visual function to an extent that would interfere with the safe exercise of the applicant‘s licence and rating privileges.

C2.15.2 Distant visual acuity with or without correction shall be 6/12 or better in each eye separately, and binocular visual acuity shall be 6/9 or better. No limits apply to uncorrected visual acuity. Where this standard of visual acuity can be obtained only with correcting lenses, the applicant may be assessed as fit provided that:

a) such correcting lenses are worn during the exercise of the privileges of the licence or rating applied for or held; and

b) an additional pair of suitable correcting spectacles is kept readily available during the exercise of the privileges of the applicant‘s licence.

Note. — An applicant accepted as meeting these provisions is deemed to continue to do so unless there is reason to suspect otherwise, in which case an ophthalmic report is required at the discretion of the medical assessor. Both uncorrected and corrected visual acuity are normally measured and recorded at each re-examination. Conditions which indicate a need to obtain an ophthalmic report

## Vision

C3.15 Visual requirements- The medical examination shall be based on the following requirements.

C3.15.1 The function of the eyes and their adnexa shall be normal. There shall be no active pathological condition, acute or chronic, or any sequelae of surgery or trauma of the eyes or their adnexa likely to reduce proper visual function to an extent that would interfere with the safe exercise of the applicant‘s licence and rating privileges.

C3.15.2Distant visual acuity with or without correction shall be 6/9 or better in each eye separately, and binocular visual acuity will be 6/6 or better. No limits apply to uncorrected visual acuity. Where this standard of visual acuity can be obtained only with correcting lenses, the applicant may be assessed as fit provided that:

a) such correcting lenses are worn during the exercise of the privileges of the licence or rating applied for or held; and

b) an additional pair of suitable correcting spectacles is kept readily available during the exercise of the privileges of the applicant‘s licence.

Note. — An applicant accepted as meeting these provisions is deemed to continue to do so unless there is reason to suspect otherwise, in which case an ophthalmic report is required at the discretion of the medical assessor. Both uncorrected and corrected visual acuity are normally measured and recorded at each re-examination. Conditions which indicate a need to obtain an ophthalmic report

| | | |
|---|---|---|
| recorded at each re-examination. Conditions which indicate a need to obtain an ophthalmic report include: a substantial decrease in the uncorrected visual acuity, any decrease in best corrected visual acuity, and the occurrence of eye disease, eye injury or eye surgery. | include: a substantial decrease in the uncorrected visual acuity, any decrease in best corrected visual acuity, and the occurrence of eye disease, eye injury or eye surgery. | include: a substantial decrease in the uncorrected visual acuity, any decrease in best corrected visual acuity, and the occurrence of eye disease, eye injury or eye surgery. |
| C1.15.3 Applicants may use contact lenses to meet this requirement provided that:<br>a) the lenses are monofocal and non-tinted;<br>b) the lenses are well tolerated; and<br>c) a pair of suitable correcting spectacles is kept readily available during the exercise of the licence privileges. | C2.15.3 Applicants may use contact lenses to meet this requirement provided that:<br>a) the lenses are monofocal and non-tinted;<br>b) the lenses are well tolerated; and<br>c) a pair of suitable correcting spectacles is kept readily available during the exercise of the licence privileges. | C3.15.3 Applicants may use contact lenses to meet this requirement provided that:<br>a) the lenses are monofocal and non-tinted;<br>b) the lenses are well tolerated; and<br>c) a pair of suitable correcting spectacles is kept readily available during the exercise of the licence privileges. |
| Note.— Applicants who use contact lenses may not need to have their uncorrected visual acuity measured at each re-examination provided the history of their contact lens prescription is known. | Note.— Applicants who use contact lenses may not need to have their uncorrected visual acuity measured at each re-examination provided the history of their contact lens prescription is known. | Note.— Applicants who use contact lenses may not need to have their uncorrected visual acuity measured at each re-examination provided the history of their contact lens prescription is known. |
| C1.15.4 Applicants with a large refractive error shall use contact lenses or high-index spectacle lenses.<br>Note. — If spectacles are used, high-index lenses are needed to minimize peripheral field distortion. | C2.15.4 Applicants with a large refractive error shall use contact lenses or high-index spectacle lenses.<br>Note. — If spectacles are used, high-index lenses are needed to minimize peripheral field distortion. | C3.15.4 Applicants with a large refractive error shall use contact lenses or high-index spectacle lenses.<br>Note. — If spectacles are used, high-index lenses are needed to minimize peripheral field distortion. |
| C1.15.5Applicants whose uncorrected distant visual acuity in either eye is worse than 6/60 shall be required to provide a full ophthalmic report prior to initial Medical Assessment and every five years thereafter.<br>Note 1.— The purpose of the required ophthalmic examination is (1) to ascertain normal visual performance, and (2) to identify any significant pathology. | C2.15.5Applicants whose uncorrected distant visual acuity in either eye is worse than 6/60 should be required to provide a full ophthalmic report prior to initial Medical Assessment and every five years thereafter.<br>Note 1.— The purpose of the required ophthalmic examination is (1) to ascertain normal visual performance, and (2) to identify any significant pathology. | C3.15.5 Applicants whose uncorrected distant visual acuity in either eye is worse than 6/60 shall be required to provide a full ophthalmic report prior to initial Medical Assessment and every five years thereafter.<br>Note 1.— The purpose of the required ophthalmic examination is (1) to ascertain normal vision performance, and (2) to identify any significant pathology. |
| Note 2.— Guidance on the assessment of | Note 2.— Guidance on the assessment of monocular | Note 2.— Guidance on the assessment of monocular |

| | | |
|---|---|---|
| monocular applicants under the provisions of C1.15.10 is contained in the ICAO Manual of Civil Aviation Medicine (Doc 8984). | applicants under the provisions of C2.15.10 is contained in the ICAO Manual of Civil Aviation Medicine (Doc 8984). | applicants under the provisions of C3.15.10 is contained in the ICAO Manual of Civil Aviation Medicine (Doc 8984). |
| C1.15.6 Applicants who have undergone surgery affecting the refractive status of the eye shall be assessed as unfit unless they are free from those sequelae which are likely to interfere with the safe exercise of their licence and rating privileges. | C2.15.6 Applicants who have undergone surgery affecting the refractive status of the eye shall be assessed as unfit unless they are free from those sequelae which are likely to interfere with the safe exercise of their licence and rating privileges. | C3.15.6 Applicants who have undergone surgery affecting the refractive status of the eye shall be assessed as unfit unless they are free from those sequelae which are likely to interfere with the safe exercise of their licence and rating privileges. |
| C1.15.7 The applicant shall have the ability to read, while wearing the correcting lenses, if any, the N5 chart or its equivalent at a distance selected by that applicant in the range of 30 to 50 cm and the ability to read the N14 chart or its equivalent at a distance of 100 cm. If this requirement is met only by the use of near correction, the applicant may be assessed as fit provided that this near correction is added to the spectacle correction; if no such correction is prescribed, a pair of spectacles for near use will be kept readily available during the exercise of the privileges of the licence.<br>When near correction is required, the applicant will demonstrate that one pair of spectacles is sufficient to meet both distant and near visual requirements. | C2.15.7 The applicant shall have the ability to read, while wearing the correcting lenses, if any, the N5 chart or its equivalent at a distance selected by that applicant in the range of 30 to 50 cm. If this requirement is met only by the use of near correction, the applicant may be assessed as fit provided that this near correction is added to the spectacle correction already prescribed; if no such correction is prescribed, a pair of spectacles for near use will be kept readily available during the exercise of the privileges of the licence. When near correction is required, the applicant shall demonstrate that one pair of spectacles is sufficient to meet both distant and near visual requirements. | C3.15.7 The applicant shall have the ability to read, while wearing the correcting lenses, if any, the N5 chart or its equivalent at a distance selected by that applicant in the range of 30 to 50 cm and the ability to read the N14 chart or its equivalent at a distance of 100 cm. If this requirement is met only by the use of near correction, the applicant may be assessed as fit provided that this near correction is added to the spectacle correction already prescribed; if no such correction is prescribed, a pair of spectacles for near use will be kept readily available during the exercise of the privileges of the licence. When near correction is required, the applicant shall demonstrate that one pair of spectacles is sufficient to meet both distant and near visual requirements. |
| Note 1. — N5 and N14 refer to the size of typeface used. For further details, see the ICAO Manual of Civil Aviation Medicine (Doc 8984). | Note 1. — N5 refers to the size of typeface used. For further details, see the ICAO Manual of Civil Aviation Medicine (Doc 8984). | Note 1. — N5 and N14 refer to the size of typeface used. For further details, see the ICAO Manual of Civil Aviation Medicine (Doc 8984). |
| Note 2. — An applicant who needs near correction to meet this requirement will require ―look-over‖, bifocal or perhaps multifocal lenses in order to read the instruments and a chart or manual held in the hand, and also to make use of distant vision, through the windscreen, without removing the lenses. Single-vision near correction (full lenses of one power only, appropriate for reading) | Note 2. — An applicant who needs near correction to meet the requirement will require ―look-over‖, bifocal or perhaps multifocal lenses in order to read the instruments and a chart or manual held in the hand, and also to make use of distant vision, through the windscreen, without removing the lenses. Single-vision near correction (full lenses of | Note 2.— An applicant who needs near correction to meet the requirement will require ―look-over‖, bifocal or perhaps multi-focal lenses in order to read radar screens, visual displays and written or printed material and also to make use of distant vision, through the windows, without removing the lenses. Single-vision near correction (full lenses of one power only, appropriate for reading) may be acceptable for certain air traffic control duties. |

| | | |
|---|---|---|
| significantly reduces distant visual acuity and is therefore not acceptable.<br><br>Note 3.— Whenever there is a requirement to obtain or renew correcting lenses, an applicant is expected to advise the refractionist of reading distances for the visual flight deck tasks relevant to the types of aircraft in which the applicant is likely to function.<br><br>C1.15.8 When near correction is required in accordance with this paragraph, a second pair of near-correction spectacles shall be kept available for immediate use.<br><br>C1.15.9 The applicant shall be required to have normal fields of vision.<br><br>C1.15.10 The applicant shall be required to have normal binocular function.<br><br>C1.15.11 Reduced stereopsis, abnormal convergence not interfering with near vision, and ocular misalignment where the fusional reserves are sufficient to prevent asthenopia and diplopia need not be disqualifying. | one power only, appropriate for reading) significantly reduces distant visual acuity and is therefore not acceptable.<br><br>Note 3. — Whenever there is a requirement to obtain or renew correcting lenses, an applicant is expected to advise the refractionist of the reading distances for the visual flight deck tasks relevant to the types of aircraft in which the applicant is likely to function.<br><br>C2.15.8 When near correction is required in accordance with this paragraph, a second pair of near-correction spectacles shall be kept available for immediate use.<br><br>C2.15.9 The applicant shall be required to have normal fields of vision.<br><br>C2.15.10 The applicant shall be required to have normal binocular function.<br><br>C2.15.11 Reduced stereopsis, abnormal convergence not interfering with near vision, and ocular misalignment where the fusional reserves are sufficient to prevent asthenopia and diplopia need not be disqualifying. | However, it should be realized that single-vision near correction significantly reduces distant visual acuity.<br><br>Note 3. — Whenever there is a requirement to obtain or renew correcting lenses, an applicant is expected to advise the refractionist of reading distances for the air traffic control duties the applicant is likely to perform.<br><br>C3.15.8 When near correction is required in accordance with this paragraph, a second pair of near-correction spectacles shall be kept available for immediate use.<br><br>C3.15.9 The applicant shall be required to have normal fields of vision.<br><br>C3.15.10 The applicant shall be required to have normal binocular function.<br><br>C3.15.11 Reduced stereopsis, abnormal convergence not interfering with near vision, and ocular misalignment where the fusional reserves are sufficient to prevent asthenopia and diplopia need not be disqualifying. |

| Hearing | Hearing | Hearing |
|---|---|---|
| C1.17 Hearing requirements<br>C1.17.1 An Applicant who is unable to hear an average conversational voice in a quiet room, using both ears, at a distance of 2 m from the examiner and with the back turned to the examiner, shall be assessed as unfit.<br><br>C1.17.2 An applicant, when tested on a pure-tone audiometer, shall not have a hearing loss, in either ear separately, of more than 35 dB at any of the frequencies 500, 1 000 or 2 000 Hz, or more than 50 dB at 3 000 Hz.<br><br>C1.17.3 An applicant who does not meet the requirements should undergo further testing. Tests include Speech receptor test (SRT) and Speech discrimination test (SDT).<br><br>C1.17.4An applicant with a hearing loss greater than the above may be declared fit provided that the applicant has normal hearing performance against a background noise that reproduces or simulates the masking properties of flight deck noise upon speech and beacon signals.<br><br>Note 1. — It is important that the background noise be representative of the noise in the cockpit of the type of aircraft for which the applicant's licence and ratings are valid.<br><br>Note 2. — In the speech material for discrimination testing, both aviation-relevant phrases and phonetically balanced words are normally used.<br><br>C1.17.5 Alternatively, a practical hearing test conducted in flight in the cockpit of an aircraft of the type for which the applicant's licence and ratings are valid may be used. | C2.17 Hearing requirements<br>C2.17.1An Applicant who is unable to hear an average conversational voice in a quiet room, using both ears, at a distance of 2 m from the examiner and with the back turned to the examiner, shall be assessed as unfit.<br><br>C2.17.2. An Applicant, when tested by pure-tone audiometry, shall not have a hearing loss, in either ear separately, of more than 35 dB at any of the frequencies 500, 1 000 or 2 000 Hz, or more than 50 dB at 3 000 Hz.<br><br>C2.17.3 An applicant who does not meet the requirements should undergo further testing.<br>Tests include Speech receptor test (SRT) and Speech discrimination test (SDT).<br><br>C2.17.4 An applicant with a hearing loss greater than the above may be declared fit provided that the applicant has normal hearing performance against a background noise that reproduces or simulates that experienced in a typical air traffic control working environment.<br><br>Note 1.— The frequency composition of the background noise is defined only to the extent that the frequency range 600 to 4 800 Hz (speech frequency range) is adequately represented.<br><br>Note 2. — In the speech material for discrimination testing, both aviation-relevant phrases and phonetically balanced words are normally used. | C3.17 Hearing requirements<br>C3.17.1 An Applicant who is unable to hear an average conversational voice in a quiet room, using both ears, at a distance of 2 m from the examiner and with the back turned to the examiner, shall be assessed as unfit.<br><br>C1.17.2 An applicant, when tested on a pure-tone audiometer shall not have a hearing loss, in either ear -separately, of more than 35 dB at any of the frequencies 500, 1 000 or 2 000 Hz, or more than 50 dB at 3 000 Hz.<br><br>C3.17.3 An applicant who does not meet the requirements should undergo further testing. Tests include Speech receptor test (SRT) and Speech discrimination test (SDT).<br><br>C3.17.4An applicant with a hearing loss greater than the above may be declared fit provided that the applicant has normal hearing performance against a background noise that reproduces or simulates that experienced in a typical air traffic control working environment.<br><br>Note 1.— The frequency composition of the background noise is defined only to the extent that the frequency range 600 to 4 800 Hz (speech frequency range) is adequately represented.<br><br>Note 2. — In the speech material for discrimination testing, both aviation-relevant phrases and phonetically balanced words are normally used.<br><br>C3.17.5Alternatively, a practical hearing test conducted in an air traffic control environment representative of the one for which the applicant's |

| | | |
|---|---|---|
| | | licence and ratings are valid may be used. |
| **C1.16 Colour Perception Requirement**<br><br>The applicant shall be tested for their ability to correctly identify a series of pseudo-isochromatic plates in day light or in artificial light of the same colour temperature such as that provided by CIE standard illuminant "C" or "$D_{65}$" as specified by International Commission of Illumination (CIE).<br><br>An applicant failing to obtain a satisfactory score in such a test may nevertheless be assessed as 'fit' provided the applicant is able to readily and correctly identify 'aviation colour lights' displayed by means of recognized Colour Perception Lantern. | **C2.16 Colour Perception Requirement**<br><br>The applicant shall be tested for their ability to correctly identify a series of pseudo-isochromatic plates in day light or in artificial light of the same colour temperature such as that provided by CIE standard illuminant "C" or "$D_{65}$" as specified by International Commission of Illumination (CIE).<br><br>An applicant failing to obtain a satisfactory score in such a test may nevertheless be assessed as 'fit' provided the applicant is able to readily and correctly identify 'aviation colour lights' displayed by means of recognized Colour Perception Lantern. | **C3.16 Colour Perception Requirement**<br><br>The applicant shall be tested for their ability to correctly identify a series of pseudo-isochromatic plates in day light or in artificial light of the same colour temperature such as that provided by CIE standard illuminant "C" or "$D_{65}$" as specified by International Commission of Illumination (CIE).<br><br>An applicant failing to obtain a satisfactory score in such a test may nevertheless be assessed as 'fit' provided the applicant is able to readily and correctly identify 'aviation colour lights' displayed by means of recognized Colour Perception Lantern. |
| C1.16.1 The applicant shall be required to demonstrate an ability to perceive readily those colours the perception of which is necessary for the safe performance of the duties. | C2.16.1 The applicant shall be required to demonstrate an ability to perceive readily those colours the perception of which is necessary for the safe performance of the duties. | C3.16.1 The applicant shall be required to demonstrate an ability to perceive readily those colours the perception of which is necessary for the safe performance of the duties. |
| Note. - Sunglasses worn during the exercise of the privileges of the licence should be of neutral grey tint and shall be used only in day light and shall not be used in night time. They shall neither be polarizing nor polychromatic. | Note. - Sunglasses worn during the exercise of the privileges of the licence should be of neutral grey tint and shall be used only in day light and shall not be used in night time. They shall neither be polarizing nor polychromatic. | Note. - Sunglasses worn during the exercise of the privileges of the licence should be of neutral grey tint and shall be used only in day light and shall not be used in night time. They shall neither be polarizing nor polychromatic. |

**Appendix 1**

# CIVIL AVIATION AUTHORITY OF NEPAL
# FLIGHT SAFETY STANDARDS DEPARTMENT

## TESTS REQUIREMENTS FOR MEDICAL EXAMINATION AND MEDICAL ASSESSMENT

| Tests required | Class I | Class II | Class III |
|---|---|---|---|
| Blood Examination<br>TC,DC, HB<br>TC,DC,Hb,ESR,FBS&Lipid profile<br>TSH | Initial<br>At 40 and every 5 years there after<br>Every 2yrs | Initial<br>At 40 and every 5 years there after<br>Every 2yrs | Initial<br>At 40 and every 4 years there after<br>Initial, Below 40 Every 4years, At 40 and Every 2 years thereafter |
| PSA,LFT,RFT,Uric Acid, Lipid profile,HBA1C | At 40 onwards annually | N/A | N/A |
| Urine Examination:<br>Routine & Microscopic<br>Albumin & Sugar examination | Initial<br>At 40 and every 5 years thereafter<br>Each Medical | Initial<br>At 40 and every 5 years thereafter<br>Each Medical | Initial and each medical |
| Ultrasound | At 40 onwards annually | N/A | N/A |
| Electrocardiogram | Initial<br>30 to 40 years: Every 2 years | Initial<br>Above 40 years: Every 2 years | Initial<br>Above 40: Every 2 years |
| Echocardiogram | At 40 and every 5 years thereafter | At 40 and every 5 years thereafter | At 40 and every 4 years thereafter |
| Exercise Electrocardiogram(TMT) | At 40 and every year thereafter | At 40 and every year thereafter | At 40 and every 4 years thereafter |
| Coronary Calcium Score(If borderline or mild ischemic changes noted in TMT) | Below borderline in TMT | N/A | N/A |
| Chest X ray PA view | Initial and every 5 years after 40 | Initial | Initial Only |
| Audiogram in pure tone audiometer | Initial<br>30 to 40 years: Every 5 years<br>After 40: Every 2 years | Initial<br>30 to 50 years: Every 5 years<br>After 50: Every 2 years | Initial<br>At 40 and Each Medical |

- Applicant shall record regular medication consumed, duration oftreatment, any significant medical event or aviation incident/accident in Statement Form.
- Additional tests and specialistopinion may be required if any significant medical condition or abnormality is detected that may cause a degree of functional incapacity.
- Additional tests required for renewal with medical conditions:
    - Hypertension, controlled on acceptable anti hypertensive drugs: Each medical examination – Urine routine & microscopic, Blood for Urea, Creatinine& electrolytes; Every year Lipid profile and Electrocardiogram; Every 2 years Echocardiogram and Exercise ECG.
    - Diabetes mellitus, controlled with diet or acceptable anti-diabetic agent: Each medical examination- Blood sugar (F or R) and Glycosylated Hgb (HbA1C); Every year Urine routine & microscopic and Lipid profile; Every 2 years Echocardiogram, Exercise ECG, Fundoscopic Examination, Urine for microalbumin.
    - Coronary artery disease with or without intervention or operation, on acceptable medicines: Each medical examination year Electrocardiogram; Every year – Urine routine & microscopic, Lipid profile; Every year – Echocardiogram and Exercise ECG. Every 5 years: Coronary Angiogram.

# PART 3

# GUIDELINES
# ON
# MEDICAL CONDITIONS

### 3.1. General

Before issuing a licence, initial or renewal, the applicant for a flight crew or air traffic controller licence is medically examined. If the applicant passes the medical assessment of the required Class as per the standards laid down in Medical Requirements, they will be assessed as Medically Fit and recommended for the issue of the licence. If the applicant has any finding or medical condition that does not clearly meet the medical requirements, they fail the medical assessment and so will not be recommended for issue of licence.

The main objective of the medical examination and assessment process is to ensure that the applicant or holder is:

1. physically and mentally capable of performing their flying duties in a safe manner. This includes having full use of their faculties i.e. visual ability, hearing, colour perception, balance, muscle sense, etc. and their ability to evaluate flight conditions and to decide a safe course of action;
2. free of disease or any condition which may suddenly render them incapable of performing their duties in a safe manner during flight (acute incapacitation) or imperceptibly lead them to commit or omit actions that may jeopardize safety of the flight (subtle incapacitation); and
3. free of disease which may slowly but within the period of validity of the licence reduce their capacity for performing their duties at an acceptable level.

In cases with borderline or doubtful findings, or persistence of residual pathology or reduced function or disability after recovery from illness or operation or accident or any other medical event, the applicant may be considered for recertification. Such cases are usually referred for accredited medical opinion by Aviation Specialist Consultants and may include further evaluation as well as tests as felt necessary.
. All medical reports from their treating physician should be provided, when applicable. If such specialists are of the opinion that the findings or residual pathology or reduced function or disability is not likely to interfere with the safe operation of the aircraft or with the safe performance of the applicant‘s duties, they may be assessed as medically fit. In such an evaluation the applicant‘s relevant ability, skill and experience, and operational conditions are also given due consideration. On receiving such accredited medical opinion, the applicant may be recommended for issue or renewal of the licence by CAMA. In such cases, a 'limitation' or 'restriction' is usually endorsed for the sake of flight safety. Restrictions may be removed after the medical situation changes. They are, in the case of flight crew, as given below:

'Fit to fly as co-pilot only'
'Fit to fly only with suitably qualified co-pilot'
'Fit to fly only with Senior Co-pilot'
'Fit to fly only with another Captain'
'Fit to fly only with a safety pilot with dual controls in single pilot aircraft' 'Fit to fly solo in cargo or non-revenue passenger flights only'

There may be other endorsements, such as use of appliances e.g. glasses, frequent assessments, additional tests, specialist reports, accredited medical opinion, practical flight tests, etc. when the safe performance of the licence holder's duties is dependent upon compliance with such endorsements.

In case of Class II and Class III medical assessments, especially for private and recreational flying, less stringent medical standards may be acceptable due to the nature of their work and safety concern, though the principle of evaluation will be the same.

If the applicant is to be on medications, those should be from the approved list or have prior approval from CAMA/DME/SME.

Continuous supervision and follow-up will be important in some cases. It should be the responsibility of the Airline doctor, the licence holder‘s family physician or even the DME/SME, if they are providing medical care. Hence, all airlines are expected to have a Medical Unit or at least a Medical Officer, in their organisation who will be responsible to look after the health and follow up of such flight crew and other personnel of the airline.

The following descriptions include common conditions in the general population, so also in the aviation personnel. These guidelines, though meant for all applicants and holders of all classes of medical assessments, are more directed to the flight crew.

These guidelines are given in order to help the SMEs, DME and CAMA to deal with such medical conditions and to have a scientific, sound and uniform process for assessing the applicant for or holder of a licence. Using these guidelines and appropriate actions and decisions, CAMA will attempt to grant or renew licences whenever it is possible to do so without compromising flight safety. However, these guidelines are not necessarily final and may be modified from time to time on the basis of further knowledge and experience.

## 3.2. NEURO-PSYCHIATRIC CONDITIONS

Neuro-psychiatric symptoms vary from mild anxiety symptoms due to day-to-day events and stresses, to severe and incapacitating disorders. If there is doubt or suspicion during the medical examination or on verifiable information from an identifiable source, psychiatric evaluation will be required detailing an expert opinion and recommendation.

**3.2.1 Anxiety based disorders (Neurosis):** An applicant with a history of anxiety-based disorders of significant severity requiring psychotropic medication, or admission in hospital, or prolonged treatment or recurrence, are normally rejected for all classes of licence.

A licence is suspended or is not issued during a psychiatric illness and while the applicant is undergoing treatment. But if the illness was not of a long duration and the psychotropic drugs were stopped for 6 months or more, the applicant may be considered for issue or recertification on the psychiatrist's accredited medical opinion with restrictions such as 'to fly as or with suitably qualified co-pilot in the multi-pilot aircraft' or 'to fly with safety pilot with dual control in single pilot aircraft' for 6 months after which they shall be re-evaluated.

**3.2.2 Sociopathic Personality Disorders:** All such cases, if proved, are assessed as unfit for all classes of licence.

**3.2.3 Psychotropic Substance or Alcohol Abuse:** These reduce performance, slow reactions and impair judgment. The detrimental effects persist even after these substances have been eliminated from blood. There exists every chance of a recurrence of symptoms, even after ceasing use.

A history of abuse, or current effects of abuse of these substances may be incompatible with flying. After successful treatment and complete abstinence for six months or more, the applicant may be considered for issue or recertification upon the psychiatrist's accredited medical opinion and provided abstinence is secure and three-monthly follow-up is maintained. The issue or recertification will be endorsed with restrictions, such as 'to fly as, or with, a suitably qualified co-pilot in multi-pilot aircraft', or 'to fly with a safety pilot with dual control in single pilot aircraft‘. Failure to comply, or evidence of a relapse will make the applicant permanently unfit.

## 3.3 NEUROLOGICAL CONDITIONS

**3.3.1 Seizure:** Disturbance of consciousness in flight personnel is usually due to transient cerebral hypoxia following syncope, or more rarely due to a cardiac disorder or an epileptic seizure. An epileptic seizure occurring during flight is an unacceptable safety hazard, even in multi-pilot aircraft. It may be a partial seizure and not immediately apparent to the other pilot or a generalized tonic-clonic seizure, the consequence of which may disrupt the equipment or cause loss of control. This may be especially hazardous if it occurs during take-off or landing. Hence it is important to be sure whether it is due to 'faint,' or 'fit i.e. seizure'.

**Epilepsy** is a recurrent seizure and causes sudden incapacitation. Hence, the diagnosis of epilepsy leads to permanent failure in all classes of medical assessment.

**Single seizure**, if afebrile and unprecipitated, may be assessed as fit for certification after 10 years, provided there is no recurrence, and the applicant is off drugs for five years or more. The applicant will also require a normal EEG and MRI of brain and a neurologist's opinion that there is no likelihood of having another seizure. The licence will be endorsed with restrictions such as 'to fly as or with suitably qualified co-pilot' in multi-pilot aircraft or 'with safety pilot with dual control in single pilot aircraft' for one year, after which the restriction may be lifted.

An applicant with a history of **childhood febrile seizure**, occurring before the age of 5 and not associated with neurological deficit, may be considered as fit for certification.

**Post-traumatic epilepsy** is disqualifying.

**Abnormal EEG or MRI or recurrence of epilepsy,** following a previous history of epilepsy will be permanently disqualifying.

**3.3.2 Head Injury:** Accidents associated with head injuries are common in the modern world.

**Head injury with loss of consciousness and focal neurological deficit, depressed skull fracture, cerebral injury or post-traumatic headache** will be disqualifying.

There are two major concerns following head injury with loss of consciousness. One is the neuro-psychological consequences of the head injury in the individual, though without focal neurological deficits, could be in the form of dysfunction in number of functional executive activities of brain. This is the effect of acceleration or deceleration forces on the skull and the brain causing damage to cortical and diffuse white matter. The other concern is the possibility of seizures. Both are incompatible with flight. The duration of loss of consciousness and length of post-traumatic amnesia both show a good correlation of severity of brain damage and occurrence of epilepsy.

Probability of epilepsy is greater in those with penetrating skull injuries. Even with full physical and neuro-psychological recovery there is an increased probability of seizures for over 10 years. In general, those who develop post-traumatic seizures, 50 % will occur within one year and 70 – 80% within two years. Thereafter the incidence is 3 – 5 % per year,upto ten years.

| **Risk Factors for Late Post-Traumatic Epilepsy** | |
|---|---|
| | Incidence of late seizures (%) |
| Penetrating injury caused by missiles | 53 |
| Intracerebralhaematoma – laceration | 39 |
| Focal brain damage on early CT scan | 32 |
| Early seizure | 25 |
| Depressed fracture – torn dura | 25 |
| Extradural or subdural haemorrhage | 20 |
| Focal signs (hemiplegia, aphasia.) | 15 |
| Depressed skull fracture | 15 |
| Loss of consciousness > 24 hours | 5 |
| Linear fracture | 5 |
| Mild concussion | 1 |
| Pagni C.A. ActaNeurochirurgica, Suppl. (1990) | |

| Recommendation minimum period of grounding on duration of period of post-traumatic amnesia (PTA) | |
|---|---|
| Duration of PTA | Minimum recommended period |
| Momentary | Two – six weeks |
| More than one hour | Two months |
| More than 12 hours | Four months |
| More than 24 hours | Six months |
| More than one week | 12 months |

Depending upon the initial level of risk, if the epilepsy has not occurred two years after a head injury the reduction of risk may allow a pilot to return to flying without restriction or as or with, a co-pilot. After five years this restriction may be removed.

**Head injury with loss of consciousness and after complete recovery of mental and neurological function** may be assessed as 'fit', with or without restriction, after a complete neurological examination and appropriate laboratory and imaging studies. However, a period of stabilization and an Accredited Medical Opinion is required before the applicant is recommended.

**3.3.3 Headache:** A headache is a common symptom and mostly mild and short lived. But some may be severe and incapacitating, and chronic or recurring and so hazardous to flight safety.

**Migraine**: Some migraines present as frequent attacks of severe headache associated with aura, particularly the disturbance of sight, and neurological disturbance, prostration from vomiting, photophobia and occasional loss of consciousness. A chronic sufferer may be assessed as unfit for certification. Some sufferers may be considered for recertification and assessed as _fit to fly as, or with a suitably qualified co-pilot in multi-pilot aircraft' or 'with a safety pilot with dual control in single pilot aircraft' for one year. If the attacks of headache are of lesser severity and infrequent, and if the applicant is receiving treatment and is free of headaches for more than 6 months, the restriction may be lifted after one year.

**Cluster Headache**: Chronic cluster headache without remission is assessed as permanently unfit. But if it occurs for a limited period followed by long period of remission, the applicant may be certified fit with restriction 'to fly as or with suitably qualified co-pilot in multi-pilot aircraft' or 'with a safety pilot with dual control in single pilot aircraft' with a suspension of licence required during any relapse.

**3.3.4 Neuralgic Pain:** Neuralgic attacks of sudden severe pain, as in **trigeminal neuralgia and other neuralgias,** are distracting and incapacitating and applicants with such a history are assessed as unfit. If the applicant becomes free of pain spontaneously or after operation or with treatment and remains so for more than six months without treatment, they may be considered for recertification, with or without restriction. A neurologist opinion may be required.

**3.3.5 Infection:** Infection of the nervous system can occur sometimes in aviation personnel.

**Viral Encephalitis:** Generally, an applicant who has suffered from viral encephalitis would be assessed as permanently unfit, as they often have a residual neuropsychological deficit.

**Viral Meningitis:** A applicant who is neurologically normal two months after viral meningitis, will be assessed as fit in all classes.

**Bacterial Meningitis:** An applicant who has completely recovered from bacterial meningitis may be assessed as medically fit after one year, provided he is found to be normal on neurological examination, electroencephalogram, and CT scanning and if there is no focal neurological deficit.

**Bain Abscess:** An applicant who has suffered from a brain abscess is assessed as permanently unfit due to increased risk for epilepsy from the scarring that forms round the abscess.

**GuillainBarre Syndrome:** Applicant who has made a full recovery from GuillainBarre Syndrome may be assessed as fit. If they have mild residual weakness, they may also require a flight test.

### 3.4 CARDIO-VASCULAR CONDITIONS

**3.4.1 Hypertension:** Hypertension is a common condition in the adult population and can cause long term changes, if not controlled, e.g. damage to major organs including heart, brain, kidneys and eyes. Hence, it can be the cause of incapacitation jeopardizing the safety of flight. Hypertension is a common cause of premature loss of licence.

**Blood pressure measurement:** Blood pressure measurement will be done both in seated and recumbent positions. The systolic blood pressure shall be recorded at the appearance of the Korotkoff sounds (phase I) and the diastolic blood pressure at their disappearance (phase V). If the blood pressure is raised and the resting heart rate is rapid, further observation should be made during the medical examination after some rest.

Hypertension will be suspected if blood pressure is recorded at 140/90 mm of Hg or more in a sitting position after adequate rest. It will be confirmed if it is consistently so on weekly blood pressure examinations for 4 weeks. Hypertension is classified as per new National Heart and Lung and Blood Vessels Institute (NHLBI) Standards (May 2003), as given below:

| Condition | Systolic (mm of Hg) | Diastolic (mm of Hg) |
|---|---|---|
| Normal | <120 | <80 |
| Prehypertension | 120 – 139 | 80–89 |
| Stage I Hypertension | 140 – 159 | 90–99 |
| Stage II Hypertension | >160 | >100 |

If the readings are above 140/90 mm Hg but below 160/100 mm of Hg i.e. Stage I Hypertension, an ambulatory blood pressure measurement (ABPM) for 24 hours will be done to eliminate the white coat and anxiety induced hypertension.

If 2 blood pressure measurements done at weekly intervals are more than 160/100 mm of Hg i.e. Stage II Hypertension, no ABPM will be required.

**24 hours ambulatory blood pressure measurement***:* It is programmed to record the blood pressure every 30 minutes during the day time and every 60 minutes during night time. The applicant is instructed to keep the arms still during measurements and continue his daily activities other times. He is also to record the activities as well as time of going to bed and time of rising. For analysis more than 14 systolic and diastolic blood pressure records during the day time and at least 7 records at night are mandatory.

Definition of normal blood pressure and hypertension using ABPM is given below:

| | **Normotension** | **Hypertension** |
|---|---|---|
| | (Upper limits by rounding downwards 0-5 mmHg) | (Upper limits by rounding upwards 0-5 mmHg) |
| For 24 hours average | 130/80 mmHg | >135/85 mmHg |
| For day time average | 135/85 mmHg | >140/90 mmHg |
| For night time average | 120/70 mmHg | >125/75 mmHg |

The applicant with hypertension diagnosed for the first time, will require cardiovascular evaluation for medical assessment including risk factors and target organs, and consist of:

- Detailed history including family, personal & social,
- Blood tests – Hb, ESR, urea, creatinine, electrolytes, fasting lipid profile, uric acid and fasting blood sugar
- Urine analysis
- Chest X-Ray
- Electrocardiogram
- Echocardiogram
- Exercise Electrocardiogram Test

The applicant who is diagnosed with 'Stage I Hypertension' will be treated initially with non-pharmacological means and monthly blood pressure recording for three to six months, maintaining their flight status, and then with approved anti-hypertensive drugs, if necessary.

The applicant diagnosed with 'Stage II Hypertension' will be certified 'unfit temporarily' for flight duty. Meanwhile an attempt will be made to control the blood pressure by non-pharmacological means and any antihypertensive drug dosage will be adjusted if the applicant is already in treatment. A minimum period of 2 weeks classed as unfit should be imposed from the application of, or dosage change of, approved drug or drugs, to watch for any adverse effects of these drugs in that dosage. During this period blood pressure will be recorded weekly. After the control of blood pressure, the applicant will be followed up monthly for three months and then every 3 months, provided blood pressure control is satisfactory.

This follow-up care should be the responsibility of the Airline doctor or the applicant‘s family physician, or even the medical examiner, if they are providing medical care. Before certification of medical fitness all the medical reports from the treating physician should be provided to the medical examiner and then to the Member Coordinator.

*Non-pharmacological means or modification of life style (weight reduction, minimizing alcohol consumption and salt intake, regular exercise,) is the first approach. Cessation of smoking and reduction of saturated fat intake are to be strongly recommended as it reduces the associated cardiovascular risk.*

*The following classes of drugs have been identified as acceptable in the management of hypertension in aviation personnel. viz. Non-loop Diuretics (Hydrochlorthiazide 25 mg/day,*

*Chlorthalidone, Amiloride, Triamterin, Aldosterone) , Hydrophilic Beta-blockers (Atenolol and Metoprolol), long acting Angiotensin Converting Enzyme (ACE) Inhibitors (Enalapril, Lisinopril), Angiotensin II receptor blockers and Slow Calcium channel blockers (long acting dihydroppyridines viz. Amlodipine).*

During periodic examination of those controlled with acceptable drugs for renewal of licence, the treating physician will provide a medical report and records of at least 3-monthly blood pressure, and the applicant will undergo tests as listed above once every two years for future aviation medical examinations.

**Stage I Hypertension** is certified 'fit' without restriction, except during the initial few weeks of initiation of treatment with anti-hypertensive drugs and observation for any side effects.

**Stage II hypertension** is certified 'temporarily unfit' until the applicant‘s blood pressure is controlled and the anti-hypertensive drugs cause no adverse effects. Then they will be assessed fit without restriction.

The presence of **complications of hypertension** will render an applicant 'unfit'.

**3.4.2 Coronary Artery Disease:** Coronary artery disease is common especially in affluent society. The incidence is on the increase in this part of the world. Sudden incapacitation is a dangerous situation during flight and hence it is the commonest cause of the loss of licence. Local lesions of the coronary arteries are important, but risk factors and life style are also equally important and need to be addressed.

An applicant with a proven history or clinical diagnosis of **Myocardial Infarction,** with or without symptom and with or without treatment, shall be assessed as 'unfit' in both initial and renewal, for all classes of licence. They may be considered for recertification after one year, if there is no significant residual damage of myocardium and no significant stenosis of coronary artery or its branches and according to accredited medical opinion the cardiac condition is unlikely to interfere with the safe exercise of the privilege of the licence. It will be endorsed with a restriction for one year to fly as or with a co-pilot and this restriction may be lifted after one year. Follow-up of annual cardiological review shall be required by a cardiologist, including Exercise ECG and/or Myocardial perfusion scintigraphy. After 5 years a repeat coronary arteriogram may be required.

All applicants with atypical chest pain or suspected ~~or~~ asymptomatic or symptomatic coronary artery disease will be assessed as 'unfit' and shall undergo detailed cardiovascular evaluation and investigations and require an 'accredited medical opinion'. A applicant with **angina** and/or Exercise ECG positive for **reversible myocardial ischaemia** will be assessed as unfit for any class of licence. If the applicant was **treated with coronary angioplasty or with coronary artery by-pass graft**, they may be assessed as fit after one year from the procedure and after cardiac evaluation and accredited medical opinion that there is no likelihood of becoming suddenly incapacitated or interfering with the safe operation of aircraft and the safe performance of their duties. The licence will be restricted to multi-crew operation for one year, after which the restriction may be lifted. Follow-up with an annual cardiological review shall be required by a cardiologist, including Exercise ECG and/or Radioisotope Myocardial Perfusion Scan. After 5 years a full cardiological evaluation and repeat coronary arteriogram may be required.

**Exercise Electrocardiography:** *A standardized protocol such as Bruce treadmill protocol or equivalent should be employed. The subject should be exercised to symptom limitation and be expected to complete at least three stages – nine minutes or 11 METs. The reason for discontinuing the test should be recorded together with the presence or absence of any symptoms.*

More than 1 mm ST depressionin Exercise ECG will be considered as positive for reversible myocardial ischaemia. The depression should be horizontal or down sloping and lasts more than 0.08 second duration. There may be disturbance in conduction or/and ventricular or supraventricular extrasystoles.

Failure to achieve increase in blood pressure or occurrence of fall in blood pressure is indicative of extensive ischaemia.

Inability to achieve predicted heart rare target renders the test inconclusive rather than negative.

a. Absence of reversible ischaemia will rule out coronary artery disease.
b. Presence of reversible ischaemia shall have coronary angiogram, and further action will be taken on the findings.

**Coronary Angiogram: Significant stenosis** is defined as a coronary artery or its main branches being obstructed more than 30 % and minor branches more than 50 %.

(a) Absence of significant stenosis in any coronary artery or its branches shall be defined as a false positive exercise ECG.
(b) Presence of significant stenosis of one or more coronary artery or branches will be disqualifying.

Applicants with **ischaemic damage to the ventricle** such as dyskinesia, hypokinesia or akinesia, ejection fraction <50 and significant abnormality of wall motion shall be assessed as 'unfit'.

**3.4.3 Epicardial, myocardial or valvularheart disease:** Applicants withepicardial, myocardial or valvular heart disease, with or without symptoms, treatment or surgery, shall be assessed as unfit. Applicants without symptoms may be assessed as fit for class II Medical Assessment after a full cardiological evaluation and accredited medical opinion, if they are not carrying revenue passengers.

**3.4.4 Vascular conditions**: Applicants with the following vascular conditions shall be assessed as unfit, viz.

Significant peripheral arterial disease, before or after surgery, and
Aneurysm of thoracic or abdominal aorta, before or after surgery.

**3.4.5 Vaso-vagal syncope:** Recurrent vaso-vagal syncope sufferers will be assessed as unfit.

**3.4.6 Rhythm or Conduction Disturbances:** An applicant with a rhythm or conduction disturbance must be evaluated to determine what extent of disability it can produce and whether there is underlying heart disease. This may require detailed cardiological evaluation with echocardiography, exercise electrocardiogram, Holter monitoring, etc.

**3.4.7 Coronary Calcium Score:** This test uses CT (Computerised tomography) to detect calcium deposits in coronary arteries. A higher calcium score denotes a higher chance of significant narrowing of coronary vessels with subsequent higher heart attack risk.
In view of high cardiovascular events including myocardial infraction, this test would aid to further elucidate coronary events especially in borderline or mildly positive (TMT) Tread Mill Test cases.

Commonly occurring conditions like **respiratory arrhythmia, occasional uniform atrial or ventricular ectopic complexes** which disappear on exercise, **rapid heart rate** from excitement or exertion, **slow heart rate** not associated with auriculo-ventricular dissociation, may be regarded as being within normal limits.

**Supra-ventricular premature beats or ectopics**are usually of less importance, but some of them may predispose to supraventricular tachycardia, atrial flutter or atrial fibrillation.

**Supraventricular tachycardia** may accompany illnesses like Pneumonia or Thyrotoxicosis, in which case the disease itself will disqualify the applicant until successfully cured or controlled.

**Paroxysmal supraventricular tachycardia can** cause distraction and in some cases is incapacitating. Applicants with successful therapy with anti-arrhythmic drugs need not be disqualified. Ablation therapy should be confirmed to be successful by repeat electrophysiological studies after 3 months. A licence restriction is applied as to fly in multi-crew aircraft or to fly with a safety pilot for three months, after which the restriction may be lifted.

**Ventricular premature beats** in the presence of cardiac disease is a disqualifying condition. It is also more likely to be associated with serious ventricular tachycardia and hence disqualifying if the applicant presents with one or more of the following characteristics:

(a) Prolonged Q-T interval,
(b) Occurrence in close proximity to the vulnerable period i.e. R on T phenomenon,
(c) Occurrence in pairs or regularly coupled to the normal QRS complex in bigeminy,
(d) Multifocal origin,
(e) Post-extrasystolic T inversion or post-extrasystolic ST depression, and
(f) Increase in frequency with stress.

The applicant may be assessed as fit with a density of < 200/hour if non-invasive investigations are satisfactory, but a multi-crew endorsement is usually applied.

Applicants with **broad and/or narrow complex tachycardia** shall be assessed as 'unfit'.

**Isolated sinus node dysfunction including sinus Bradycardia**, may occur in healthy young people, particularly those engaged in vigorous exercise. Such finding need not disqualify the applicant.

**Sinoatrial disease** may remain relatively free of symptoms for years. An applicant who is asymptomatic may be assessed as fit, but with a restriction to multi-crew operation. A regular review with exercise electrocardiogram for chronotropic incompetence and Holter monitoring are required. Once symptomatic, the applicant shall be assessed as permanently unfit.

**Atrial fibrillation** may be encountered during a medical examination. Leaving aside the possibility of other disqualifying conditions which may coexist, the importance of atrial fibrillation is its possibility to cause distraction, subtle incapacitation and the risk of thrombo-embolism. An applicant with a**single episode** with a defined cause e.g. vomiting, which is self-limiting with spontaneous reversion to sinus rhythm, should eventually get unrestricted flying status, though in the beginning are endorsed with multi-crew status. The need for DC conversion does not necessarily imply a bad prognosis. Other types of atrial fibrillation are p**aroxysmal or persistent or permanent atrial fibrillation.**The presence of structural or

metabolic abnormality, or of ischaemic, hypertensive or valvular heart disease, or thyrotoxicosis or possibility of alcohol abuse will disqualify the applicant from flying. Lone atrial fibrillation, without any obvious pathology may be assessed as fit with restriction to multi-crew operation, if asymptomatic. Permissible medications to reduce the ventricular rate are Digoxin, Beta blockers and Verpamil.

**Fist degree or second degree (Type I)** should be investigated to rule out heart disease and to determine the risk of complete heart block. This can be seen during rest, particularly sleep, in young adults who engage in vigorous exercise, and so they are assessed as fit without restriction.

**Bundle branch block: Isolated bundle branch block and left hemiblocks,** which are long standing, are generally benign. Applicants with **complete right or left bundle branch block** require cardiological evaluation on first presentation.

**3.4.7 Congenital heart diseases:** Sometimes an applicant with congenital heart disease may apply for initial or renewal of the licence. The condition may be known earlier or maybe detected for the first time.

**Small or early** (<24 years) **corrected secundum atrial septal defect** is compatible with unrestricted flying subject to regular review, but departure from this requirement implies restricted flying or denial of licence.

**Small ventricular defect** may be assessed as fit as it tends close spontaneously or remain stable. Closure in childhood likewise carries a good outcome.

**Coarctation of aorta:** An applicant who has undergone surgical correction after the age of 12 is assessed as unfit due to increased risk of sudden death and incapacitation due to cerebrovascular accident. An applicant who had undergone successful correction before the age of 12 may be certified as fit.

**3.4.8 Innocent murmurs:** Murmurs do not necessarily mean a valvular heart disease. If it is diagnosed to be innocent murmurs, the applicant may be given unrestricted flying status. They may, however, need cardiologist confirmation with non-invasive tests.

**3.4.9 ECG Findings:** They are listed below in different categories

ECG Findings
- Normal Tracing - Fit
- Normal Variant - Fit
- Borderline – Requires evaluation
- Abnormal Tracing – - Unfitimmediately, or after evaluation

**Normal Variants**
Require no further evaluation
- Isolated Sinus Tachycardia
- Sinus Bradycardia
- Sinus Arrest – less than 2 seconds in duration

- Sinus Arrhythmia
- Wandering Supraventricular Pacemaker
- Nodal Rhythm
- Sinus Rhythm (Atrial Rhythm)
- Atrial Premature Extrasystole(s)
- Nodal Premature Extrasystole(s)
- Nodal Escape Beat
- Atrial Escape Beat
- Premature Ventricular Contraction, Unifocal, less than 30
- Ventricular Escape Beat
- Interpolated Extrasystoles
- Ventricular Bigeminy, Trigeminy, less than 30
- Ventricular Parasystole, less than 30
- Terminal Intraventricular Conduction Defect
- Unclassified Intraventricular Conduction Defect
- Nonspecific ST elevation (Early Repolarization)
- Post-extrasystolic T Wave Changes
- PVC's (Unifocal) after Exercise
- PVC's (Unifocal) during Exercise
- $S_1$, $S_2$ or $S_1$, $S_2$, $S_3$ Pattern
- Right Bundle Branch Block (RBBB) – in absence of organic disease

**Borderline** i.e. Possibly Significant Abnormal Tracing, requires further evaluation

- Sinus Tachycardia – if persistent and present during basal resting state
  – Med Eval, Cardiac enzymes, T3, T4 & TSH, Echocardiogram, TMT &Holter
- Paroxysmal Atrial or Nodal Tachycardia, Atrial Flutter or Atrial Fibrillation precipitated by well–documented unusual circumstances
  – Med Eval, Cardiac enzymes, T3, T4 & TSH, Echocardiogram, TMT &Holter
- First Degree A-V Block (>0.20 sec)
  – Med Eval, Echocardiogram, MT &Holter
- Wenckeback (Type I A-V Block)
  – Med Eval, Echocardiogram, TMT &Holter
- A-V Dissociation
  – Med Eval, Echocardiogram, TMT &Holter
- Low Amplitude T Wave or Non-specific T wave Changes (in fasting condition)
  – Med Eval, Echocardiogram, TMT &Holter
- Non-specific ST Depression (in fasting condition)
  – Med Eval, Echocardiogram, TMT &Holter
- Abnormal TMT (1.0 mm or greater ST depression, horizontal or down sloping, of more than .08 sec duration
  – Med Eval, Echocardiogram, Holter, Thallium Scan, Coronary Angiogram may be required
- Poor R wave Progression
  – Med Eval, Echocardiogram, TMT &Holter
- PVC's (for the first time, over 30 years old) including Bigeminy, Trigeminy&Parasystole
  – Med Eval, Echocardiogram, TMT &Holter

- Right Bundle Branch Block (RBBB) (new appearance)
  - Med Eval, Echocardiogram, TMT &Holter
- Left Bundle Branch Block (LBBB) –
  - Med Eval, Echocardiogram, TMT &Holter
- Wolff-Parkinson-White Syndrome (WPW)
  - Med Eval, Echocardiogram, TMT &Holter
- Lown-Genang-Levine Syndrome (LGL)
  - Med Eval, Echocardiogram, TMT &Holter
- Left Axis Deviation (LAD) (> $-30^0$)
  - Med Eval, Echocardiogram, TMT &Holter
- Right Axis Deviation (RAD) (>$120^0$)
  - Med Eval, Echocardiogram, TMT &Holter
- Pericarditis – repeat after 6 months

**Significant Abnormal Variants**

- Disqualifying for all classes.
- Usually do not require further evaluation
- Serious enough to warrant complete medical evaluation
- If found in personnel already on flying duty, usually a basis for suspension of flight privileges.

- Sinus arrest – occurring spontaneously for a period of 2 seconds or more or when associated with symptom
- Paroxysmal atrial or nodal tachycardia, atrial flutter, or atrial fibrillation, unless it is an isolated occurrence precipitated by well- documented unusual circumstances, e.g. excessive fatigue, infection, ingestion of medicine, alcohol or toxic agent, not associated with WPW
- Idioventricular rhythm
- Ventricular tachycardia – 3 or more successive ventricular contractions
- Paired PVC‘s
- Ventricular fibrillations
- Multifocal PVC‘s
- Second Degree A-V Block (Mobitz type II)
- Complete (third degree) A-V block
- Evidence of Myocardial ischaemia or damage, especially as a serial change
- Evidence of Myocarditis, Endocarditis
- WPW when associated with an episode of a tachyarrhythmia or suggestive of history of same
- LGL
- LBBB, in Class I Flying personnel
- Any other ECG abnormality, indicative or significantly altered cardiac function, not mentioned above.

**Medical Evaluation**:

- History & evaluation preferably by a Cardiologist
- Laboratory investigations (CBC, ESR, urine R & M, Renal profile, Bl sugar F & PP, BUA, Lipid profile, Thyroid function tests, PSA, LFT)
- X rays – Chest PA & Lateral views
- USG
- Other tests may be required depending upon the case

**Cardiac Investigations**:

- ECG - ECG at resting and fasting state
- Echocardiogram
- Exercise ECG
- Ambulatory ECG
- Radioisotope Myocardial Perfusion Scan
- Stress Echocardiogram
- Coronary Angiogram
- Coronary Calcium Test
- Any other investigations deemed necessary

## 3.5 RESPIRATORY CONDITIONS

Respiratory diseases are the commonest cause of morbidity and loss of time at work in the general population. The disease, not so symptomatic on the ground, may cause problems and incapacitation in the aviation environment.

**3.5.1 Bronchial Asthma:** An applicant with **a recent attack** of bronchial asthma shall be assessed as 'unfit for initial issue of licence. **Recurrent attacks** shall be assessed as 'unfit for renewal of licence. The applicant may be considered for certification only after being free from attacks for 5 continuous years. A history of **childhood asthma** alone is not disqualifying.

**3.5.2 Chronic obstructive airway disease** requiring continuous medications shall be
assessed as unfit. The individual assessment is made on the basis of severity of disease, type and amount of medication required, full history, pulmonary function test. The treating
physician or chest physician's report is usually required.

**3.5.3 Pneumonia**: Unfit until fully recovered.

**3.5.4 Pulmonary Tuberculosis**: An applicant or holder will be assessed as unfit during active tuberculosis and in the initial phase of treatment for at least two months. Once the patient becomes asymptomatic and there is marked clearing in the chest X ray, they may be assessed as 'fit' with a restriction to multi-pilot aircraft while undergoing treatment.

**3.5.5 Tubercular Pleural effusion**, as in Pulmonary tuberculosis.

**3.5.6 Spontaneous Pneumothorax**: It happens suddenly and can cause severe pain or breathlessness. Open pleurectomy is recommended following a single event and flying duties can be resumed 3 months after pleurectomy. If not carried out, the applicant may be considered for recertification only after 18 months.

**Recurrent spontaneous pneumothorax** Flight privileges shall be removed permanently if pleurectomy is not done. An investigation to exclude lung disease is required.

**3.5.7 Pyothorax**: If completely healed after medical and/or surgical treatment, the applicant may be considered for certification after 6 months. If pulmonary functions are satisfactory, the applicant may be assessed as fit with a multi-crew restriction. After one year the restriction may be lifted.

## 3.6 GASTRO-INTESTINAL CONDITIONS

Digestive complaints or conditions are common in the general population. These can distract or even incapacitate though most of them are just a nuisance during the flight.

**3.6.1 Gastro-oesophageal reflux disease**: If troublesome and symptomatic, the applicant will be assessed as unfit. They will be reassessed as fit after symptoms are abated, with or without acid suppressing treatment, with or without restrictions as indicated.

**3.6.2 Gastric or Duodenal Ulcer**: An applicant with an active ulcer confirmed on endoscopy are assessed as unfit Before being assessed as 'fit', the ulcer must be proven healed completely endoscopically. Continued treatment with acid suppressing agents are allowed, if no side effects are produced.

**3.6.3 Complications of ulcer e.g. haemorrhage or perforation**: An applicant is assessed as unfit for six months. After treatment and if asymptomatic, they may be assessed as fit after re-endoscopic confirmation. Continued treatment with acid suppressing agents are not disqualifying. The licence may be endorsed as restricted to flying in multi-crew operations for six months.

**3.6.4. Chronic Inflammatory Bowel Disease:** An applicant with chronic inflammatory bowel disease shall be assessed as unfit.

**3.6.5 Cholelithiasis / Cholecystitis**: Applicants with symptomatic cholelithias is will be assessed as unfit and will be assessed as fit only after cholecystectomy and full recovery. Asymptomatic incidental finding of a large solitary gall stone may not restrict an applicant from being assessed as fit. Applicants with acute Cholecystitis are certified unfit and will be certified fit only after symptoms are controlled after treatment.

**3.6.6 Hernia:** Significant hernias are disqualifying until they are repaired.

**3.6.7 USG:** Ultrasonography gives a graphic information of different abdominal organs especially the liver, gall bladder, kidneys, adrenals and of female reproductive organs. Both renal and GB calculi along with alcohol abusive liver being prevalent in our society, it's an importance investigation tool

## 3.7 GENITO-URINARY CONDITIONS

**3.7.1 Haematuria:** An initial applicant with haematuria should be investigated before final assessment is given. Others who are found to have **isolated microscopic haematuria** during routine medical examination, may be assessed fit while further investigations are carried out. In case of **frank haematuria**, their licence should be suspended, or medical assessment result ~~is~~ withheld until the investigations are completed.

**3.7.2 Proteinuria:** Trace protein result can occur in as little as 50 mg of protein in a litre of urine and 1+ at about 300 mg in a litre of urine. On finding 1+ proteinuria, one should get 24 hours excretion of protein in urine. An applicant for initial licence with proteinuria should be investigated before final assessment is given. Applicants for renewal and licence holders with isolated **mild proteinuria** (<1 gm in 24 hours) may continue to fly whilst awaiting investigations and may be allowed full flying duties without restrictions. If **Significant proteinuria** (>1 gm in 24 hours) is found, the medical licence result is withheld or the licence suspended pending the results of investigations. If associated with haematuria, hypertension, renal impairment or signs of systemic disease, the applicant should be assessed as unfit. If proteinuria is an isolated finding, they may be assessed as fit with restricted multi-crew operations, provided that there is careful follow-up at a minimum of six-monthly intervals.

**3.7.3 Urolithiasis:** Urolithiasis or stone in the urinary tract is a common condition in the general population. The concern is the sudden incapacitation due to colic that it can produce. Once the applicant or holder is suspected of or diagnosed with urolithiasis, further urological evaluation is mandatory. The stone may pass per urethra or be removed by extracorporeal shockwave lithotripsy (ESWL) or operation, but it can recur in course of time. Hence follow up is important.

**Urological evaluation** includes, as follows:

Full history including family history
Urine examination - routine and microscopic examination
Blood examination – urea, creatinine, electrolytes, calcium, uric acid
Intravenous urogram (IVU)
Ultrasound of abdomen and pelvis
Biochemical tests
Other tests as deemed necessary

**Asymptomatic stone**: Any stone in the urinary tract, even without symptoms, will require further evaluation.

- If it is lying in the parenchyma and causes no obstruction, the applicant may be certified fit without restriction.
- If it is lying in collecting system with or without obstruction, their licence is suspended until the stone is cleared. Ultrasound of abdomen and pelvis will be required in every medical assessment.

**Symptomatic Stone**: If the stone is causing colic pain, their licence is suspended until the stone is cleared.

**Recurrent Stone**: It is important to follow up closely for a recurrence of stones by means of ultrasound in each medical examination.

## 3.8 METABOLIC, NUTRITIONAL AND ENDOCRINAL CONDITIONS

**3.8.1 Obesity: Gross obesity, Applicants with a** BMI of more than 40, will be assessed as unfit for all classes of medical assessments. **Obesity,** BMI more than 30, in an applicant will require further evaluation, especially for risk factors of cardiovascular diseases and obesity-associated health problems, before the applicant is assessed as fit. They may also be required to be tested in the aircraft and cockpit to ensure unrestricted movement and ability to operate the aircraft.

**3.8.2 Serum lipids abnormality:** Serum lipids estimation (serum cholesterol, triglyceride, HDL & LDL): The concern with disturbance of lipid metabolism is accelerated atherogenesis and so potential increase in the risk of sudden cardio-vascular incapacitation in the aviation personnel.

*The serum lipids estimation is to be done in the fasting stage. All the lipid components are to be maintained within normal limits. It is even more important in the presence of hypertension and /or coronary artery disease and family history. In such cases and in the presence of other risk factors, it is to be maintained at further lower levels, which are to be controlled by life-style modification e.g. reduction in alcohol, cessation of smoking, and increased exercise. If lipids do not come down to a satisfactory level in two periods of 3 months on non-pharmacological means, Statin medications are to be started.*

At the start of medication, the licence holder shall not be allowed to exercise the privilege of their licence to ensure that it has not caused significant side effects. During licence renewal, lipid profiles will be required. Lipid profile abnormality alone will not downgrade their medical fitness.

**3.8.3 Diabetes:** Diabetes mellitus is a common condition in the population and half of the sufferers remain undiagnosed. The incidence is on the rise in this part of the world and it is also found in aviation personnel. The problems in the aviation environment could be from diabetes as well as from its associated complications e.g. marked increase in coronary artery disease, visual problems and nephropathy. The other problem is from the treatment causing hypoglycaemia which can be severe and sudden or mild and subtle. Both are serious hazards to flight safety.

**Glycosuria** found at 'Medical Examination' or at any other time requires that the licence be suspended until full investigation has been undertaken.

Should a diagnosis of **Impaired glucose tolerance (IGT) or Diabetes** be made, the licence must remain suspended until stable control is achieved from diet and/or approved oral anti-diabetic agents and maintained for three consecutive months.

Typical symptoms of diabetes mellitus are weight loss, polyuria and polydipsia. A finding of glycosuria and an elevated blood sugar are diagnostic, however, the difficulty arises when mild glycosuria and subsequent abnormal blood glucose levels are found in a symptomless

applicant during routine medical examination. Abnormal blood glucose requires glucose tolerance testing.

Diabetes may be controlled on diet alone or oral anti-diabetic agents or insulin may be required depending on the type and severity of diabetes.

Should **diabetes control be obtained satisfactorily by modification of diet** alone, all classes of licence are restored.

**A Diabetic controlled on acceptable combination of anti-diabetic medications**, will be assessed as fit. The combination may include up to three drugs from the following groups.

- Biguanides
- Thiazolidinediones
- GLP-1 Mimetics
- DPP-4 Inhibitors
- Alpha-glucosidase inhibitors

An applicant, once diagnosed as impaired glucose tolerance or diabetic, should be on regular follow-up under a diabetologist or physician and should provide a report from them during the medical examination. All cases of impaired glucose tolerance or diabetes ~~on~~ controlled with diet or approved oral anti-diabetic agents for consecutive three months will be endorsed with restriction to multi-crew aircraft for one year, and then the restriction will be removed if the condition is maintained in satisfactory control. Continued licence approval will necessitate regular medical monitoring and maintenance of a satisfactory blood sugar level, freedom from ketonuria and glycosuria and that cardiovascular, neurological, renal and ophthalmological states remain normal. In all subsequent medical examinations for renewal of licence, the applicant will have urine routine and microscopic examination, 2 hours blood sugar after glucose load and Glycosylated haemoglobin, which should be in acceptable limit. They also should provide a report from their regular doctor. Once a year they will have Exercise ECG test and fundoscopic examination after pupil dilatation.

**Failure of control of diabetes** will cause suspension of the licence. Frequent failure to maintain the control of diabetes may be cause an assessment as unfit permanently.

Should **diabetes control** be obtained only **by the use of sulphonylureas or insulin,** the applicant will be assessed as 'unfit.'

**Diabetes with overt complication**, though under control, the applicant will be assessed as permanently unfit.

**Glucose Tolerance Test:** *75 G of glucose loading in a minimum of 250 ml of water is given to a fasting subject who has eaten a normal diet containing not less than 250 G of carbohydrate for the previous few days. Normal activities during those three days and rest for half an hour before test. No further activities until the test is completed.*
*No smoking in the morning and during the test. Test is to be done before 10 AM, preferably.*

| | ***Fasting*** | ***2 hours post glucose load*** |
|---|---|---|

| | | |
|---|---|---|
| ***Normal*** | *<120 mg/100ml*<br>*<6.7 mmol/* | *<120 mg/100ml*<br>*6.7 mmol/l* |
| ***Impaired glucose tolerance*** | *<120 mg/100ml*<br>*<6.7 mmol/l* | *120 – 180 mg/100ml*<br>*6.7- 10.0 mmol/* |
| ***Diabetes mellitus*** | *>120 mg/100ml*<br>*>6.7 mmol/l* | *>180 mg/100ml*<br>*> 10.0 mmol/l* |

**3.8.4 Thyroid Disorder:** Both hyper- and hypo-thyroidism are incompatible with safe performance of duties and continued licensing.

**Hyperthyroidism:** Once diagnosed and confirmed by thyroid function tests, the licence will be suspended and the applicant will be given appropriate treatment (medical or radio-active iodine or surgical) under the care of an endocrinologist or physician. After maintenance of euthyroid state including normal thyroid function tests for a sufficient length of time i.e. not less than 3 months and with good range of eye movements and no diplopia, the applicant may be assessed as medically fit with restriction to operate in multi-crew aircraft for one year and subsequently the restriction may be lifted. The licence will, however, be dependent upon continuing periodic review with thyroid function tests and a medical report from the treating physician throughout the flying career.

**Hypothyroidism**: Similarly, on being diagnosed and confirmed by thyroid function tests, the licence will be suspended. The applicant will be given Thyroxine under the care of an endocrinologist or physician. After maintenance of euthyroid state including normal thyroid function tests for a sufficient length of time i.e. not less than 3 months, they will be assessed as medically fit with restriction to operate in multi-crew aircraft for one year and subsequently the restriction may be lifted. The licence will, however, be dependent upon continuing periodic review with thyroid function tests and a medical report of the treating physician throughout the flying career,

**3.8.5 Pregnancy:** Though pregnancy is a normal physiological process, it causes major anatomical and physiological disturbances and stress in the system which are associated with increase in incapacitation.

During the first trimester the chances of spontaneous abortion are there, and till 20 weeks of pregnancy bleeding per vagina and crampy abdominal pain can occur. Pregnancy is to be confirmed as early as possible and thereafter the applicant should have regular anti-natal care. After 26 weeks there can occur gastro-intestinal disturbances due to hormonal change and anatomical displacement. Even foetal movement in the womb can be discomforting and distracting. Hence, the applicant should be under monthly obstetrical assessment and only after the clearance from that assessment she should be allowed to continue to exercise the privileges of the licence.

She also should be able to consider disqualifying herself in the presence any discomfort or symptoms. They are faintness, dizziness or vertigo, nausea or vomiting, anaemia (Hgb<10 G %), glycosuria or proteinuria, urinary tract infection, vaginal bleeding, abdominal pain, high blood pressure, etc.

In general, it is advisable to suspend the licence in **the first trimester and after 26 weeks of pregnancy.** An obstetrician's report is necessary.

The flight crew should be informed of the hazards of low pressure and radiation to the foetus during flight.

4 – 6 weeks after **confinement or termination of pregnancy**, the applicant should have a medical examination and assessment to confirm involution has taken place before she resumes flight duties.

### 3.9 MUSCULO-SKELETAL CONDITIONS

The musculo-skeletal system is concerned with stability, power, movement and activities. Any significant deficiency can be a threat to flight safety. If any doubt exists, the applicant should be tested in an actual aircraft during access and exit, in use of controls during flight, and in emergencies and evacuation under the instructor.

**3.9.1 Upper Limb:** A good range of joint movement, power and dexterity of upper limbs is required in flight crew in order that aircraft controls, which are positioned not only in front of but also to the side of, and above the seat, can be reached and used.

Injuries of the upper limbs are common in the young due to accidents and sport activities. Traumatic dislocation of **shoulder joint or gleno-humeral joint** in a crew member will disqualify them from flying. Only after 8 - 10 weeks of reduction and rehabilitation and full activities he may the applicant return to full flight status. In these cases, recurrent dislocation can often follow. In that case only after surgical repair and full recovery of function may they be assessed as fit, initially with restricted operation in multi-crew aircraft and later cleared for solo flights. **Clavicular** fracture**,** disruption of **acromio-clavicular joint, and rotator cuff** injury shall also be deemed temporarily incapacitating.

Elbow movements, functionally speaking are complimentary to those of the shoulder complex and therefore some reduction of elbow flexion and extension in acceptable. But restriction of **forearm** rotation, whether it is as a result of **elbow** condition, malunion of old **forearm** fracture or disruption of **radio-ulnar joint** is unacceptable.

Ability to perform three basic types of activity of grasping, pinching and hooking are fundamental to normal hand function. These three movements with normal coetaneous sensibility are essential for the safe manipulation of aircraft controls. Limitation of **movement of the joints, painful conditions, weakness and lack of sensation** due to nerve lesion will require suspension of the licence. Freedom of symptoms for at least six months is required before the applicant may be considered for reassessment regarding fitness for flight duty

**3.9.2 Lower Limb**: Adequate lower limb function e.g. stability, power and adequate range of movement, is essential for access and exit of the aircraft and safety in flight. Limitation of flexion in **hip joint** to less than 90 degrees from neutral position from any cause is considered hazardous. Similarly, a painless range of movement of the **knee** of at least 90 degrees of flexion from fully extended position is required. Almost full range of painless and stable movements of **ankle and subtalar joints** are required for the safe control of the aircraft. Presence of unbalanced paralysis or weakness and **foot drop** as a result of the first sacral root involvement due to disc prolapse, can result in an inability to control aircraft safely

**3.9.3 Thoraco-lumbar Spines**: **Low back aches** area common symptom in the younger age group, and more so in helicopter pilots. When symptoms are present, the licence should be suspended until they become symptom free. Lumbar **disc lesions** are common and can be disabling. Those with sciatica due to **disc prolapse** may need to undergo surgical treatment. Lesser degree of **slip disc**, grade I and those who had single level spine fusion to control the symptoms are considered fit for unrestricted flying role. Higher grades of slip disc are usually disqualifying as they are associated with higher incidence of neurological abnormalities.

### 3.10 EAR, NOSE & THROAT CONDITIONS

**Drum Perforation:** A single dry perforation is acceptable. An acute perforation will result in the applicant being declared unfit until hearing and tympanic membrane recovers.

**Otitis media:** Unfit until fully recovered.

**Sinusitis**: Unfit until fully recovered

**Vertigo:** Vertigo or giddiness is a common experience to many and usually it is transient and of no consequence. Persisting and recurring vertigo in incompatible to safe flying.

Recurrent vertigo due to **paroxysmal vestibular disorde**r and **benign positional vertigo** requires an assessment as permanently unfit, as it is recurring symptom. In case of an applicant with acute vestibular disturbance where the cause is thought to be due to a **transient disorder of the peripheral labyrinth** with full recovery with normal neurological assessment, they may be certified fit without restriction. **Meniere's Disease** is disqualifying, but the diagnosis must be confirmed.

**Monoaural hearing** or loss of hearing in one year is disqualifying in all classes of licence.

**Hearing Aid** is not acceptable in all classes of licence.

**Post-Surgical conditions**: Though chronic or sequelae of the diseases of the ear are disqualifying, after surgical treatment the applicant may be considered if they have regained the function and are observed for a certain length of time. An applicant with **simple myringotomy** will be assessed as fit for all classes without restriction after one month of observation, if the middle ear is dry, tympanic membrane healthy, and hearing is normal and there is no vertigo. After **simple mastoidectomy,** an applicant may be assessed as fit if the ear examination including hearing is normal and wound is healed. **Tympanoplasty** done for closure perforation of ear drum also improves the hearing. If the hearing is satisfactorily recovered and ear drum is intact and healthy, the applicant may be assessed as fit without restriction in all class of licence after one month. **Otosclerosis** is a common cause of conductive deafness in adults. But after ear surgery viz. **Fenestration operation, Stapes immobilization operation, Stapedectomy with prosthesis implantation**, the applicant may be considered for recertification if specialized ENT examination after three months of operation finds satisfactory hearing, patent eustachian tube, no vertigo, no nystagmus and unsteadiness on Valsalva manoeuvre or forceful nose blowing. The licence will be restricted to fly as or with another co-pilot or safety pilot for two years observation period. After that period the restriction may be removed.

### 3.11 EYE CONDITIONS

**3.11.1 Poor vision:** If an applicant having poor vision, worse than 6/60 unaided, can get vision to 6/9 in each eye with high refractory error correction they may be considered for recertification. They should wear either contact lens or high-index spectacle lenses.

**3.11.2 Diseases of eye and adnexa** cause visual or distracting ocular symptoms which in flight crew pose flight safety issues. The presence of active disease of eyes or adnexa will cause an assessment of temporarily unfit or suspend the licence until the condition has been cured or stabilized and is deemed unlikely to be a safety hazard or recur. The applicant may be assessed as fit initially in dual pilot category.

**3.11.3 Cataract: A stationary cataract, or lens** opacity, either congenital or acquired, if it does not interfere with the vision, may be assessed as fit in trained flight crew and need not impose restrictions. A **cataract** which interferes with the vision, orpresenile cataract, idiopathic or acquired, requires temporary licence suspension and ophthalmic intervention. Pseudophakia (intra-ocular lens implanted) is acceptable provided all visual requirements are met, with or without correction, three months after surgery and refraction has remained stable on two occasions at an interval not earlier than three months.

**3.11.4 Symptomless heterophoria** is considered no bar for flying status depending on the magnitude of deviation and degree of control, but **manifest squint or heterotropia** are disqualifying conditions for flying.

**3.11.5 One eye or monocular vision:** A flight crew with **one eye or monocular vision** is assessed as unfit.

**3.11.6 Corneal and refractory surgery:** An applicant with **corneal and refractory surgery** will be assessed as fit only if following conditions are met during each medical examination.

- All the eye drops should have been discontinued for not less than six months.
- Visual acuity shall meet the required standards.
- Refraction and visual acuity must remain stable on two consecutive measurements at three months and six months after surgery.

There should be no ongoing treatment of the eyes.

# ATTACHMENTS

**ATTACHMENT: A-1/6**

## CIVIL AVIATION AUTHORITY OF NEPAL

### APPLICATION AND STATEMENT FORM

Complete this page fully using a black ballpoint pen and in block letters. See instruction page for details.

| | | | |
|---|---|---|---|
| 1. Full Name: | | | 2. Date of birth: |
| 3. Gender:<br>Male / Female/ Others | 4. Address:<br>Tel/Mobile: E–mail: | | 5. Nationality: |
| 6. Occupation: | 7. Employer/Airline name and address: | 8. Family physician's or Airline Doctor's<br>Name:<br>Address:<br>Tel/Mobile: E–mail: | |
| 9. Aviation Licence held (type):<br>Licence number:<br>Country issue:<br>Type of License applied for ATPL ( ) CPL ( ) PPL ( )<br>UPL( ) F/E ( ) ATC ( ) Other ( ) | | 10. Total flight time:<br>Hours | 11. Last Medical examination:<br>Date:<br>Place: |
| 12. Any limitations on Licence/ Medical certificate: Yes / No<br>If yes, details: | | 13. Have you ever had an aviation medical assessment denied, suspended or revoked by any Licensing authority? Yes / No<br>If yes,<br>Date: Place:<br>Details: | |
| 14. Any aircraft accident or reported incident: Yes / No<br>If yes,<br>Date: Place:<br>Details: | | 15. Aircraft currently flown (e.g. Piston engine, Turbo prop, Jet): | |
| 16. Type of application:<br>Initial / Renewal / Others | 17. Class of medical assessment applied for:<br>I/ II / III /Others | 18. Type of flying intended:<br>Single–crew / Multi–crew<br>Commercial / Instructor / Private | |
| 19. Do you smoke tobacco products?<br>Never<br>Previously: Date stopped:<br>Currently: State type:<br>Amount:<br>Number of years: | 20. Do you drink alcoholic beverages?<br>Yes / No<br>If yes, state average weekly intake in units | 21. Do you currently use any medication, including non-prescribed medication or psychoactive substances?<br>Yes / No<br>If yes, state name of medication,<br>Date commenced:<br>Daily or weekly dose:<br>Cause (Diagnosis): | |

22. **General and Medical history**: Do you have, or have you ever had, any of the following? YES or No must be ticked after each question. Elaborate YES answers in the REMARKS section (23) and discuss them with the medical examiner.

| | Yes | No | | Yes | No | | | Yes | No |
|---|---|---|---|---|---|---|---|---|---|
| 101. Eye disorders/ eye surgery | | | 117. Neurological disorders: stroke, epilepsy, seizure, paralysis, etc. | | | | **Females Only** | | |
| | | | | | | | 133. Gynecological disorder (including menstrual) | | |
| 102. Spectacles and /or contact lens ever worn | | | 118. Psychological/ psychiatric trouble of any sort | | | | 134.Are you pregnant? | | |
| 103. Spectacle/ contact lens / change since last medical exam | | | 119. Alcohol/ drug/ substance abuse | | | | | | |
| 104. Hay fever, other allergy | | | 120. Attempted suicide | | | | **Family history of** | | |
| 105. Asthma, lung disease | | | 121. Motion sickness requiring medication | | | | 135. Heart disease | | |
| 106. Heart or vascular disease | | | 122. Anemia/sickle cell trait/other blood Disorder | | | | 136. High blood pressure | | |
| 107. High or low blood pressure | | | 123. Malaria or other tropical disease | | | | 137. Dyslipidemia | | |
| 108. Kidney stone or blood in urine | | | 124. Positive HIV test | | | | 138. Epilepsy | | |
| 109. Diabetes, hormone disorder | | | 125. Sexually transmitted disease | | | | 139. Mental illness | | |
| 110. Stomach, liver or intestinal Trouble | | | 126. Admission to hospital | | | | 140. Diabetes | | |
| 111. Deafness, ear disease | | | 127. Any other illness or injury | | | | 141. Tuberculosis | | |
| 112. Nose or throat disease or speech disorder | | | 128. Visit to medical practitioner since last medical examination | | | | 142. Allergy/asthma/eczema | | |
| 113. Head injury or concussion | | | 129. Refusal of life insurance | | | | 143. Inherited disorder | | |
| 114. Frequent or severe headaches | | | 130. Refusal of issue or revocation of aviation licence | | | | 144. Glaucoma | | |
| 115. Dizziness or fainting spells | | | 131. Medical rejection from or for military service | | | | | | |
| 116. Unconsciousness for any reason | | | 132. Award of pension or compensation for injury or illness | | | | | | |

**23.Remarks**: If previously reported and unchanged, state

**24. DECLARATION**: I hereby declare that I have carefully considered the statements I have made above and that to the best of my belief, they are complete and correct. I further declare that I have not withheld any relevant information or made any misleading statements. I understand that if I have made any false or misleading statement in connection with this application, the Authority may refuse to grant me a Medical Assessment or may withdraw any Medical Assessment granted without prejudice to any other legal action.

CONSENT TO RELEASE OF MEDICAL INFORMATION: I hereby give my consent that all relevant medical information may be released and submitted to the Civil Aviation Medical Assessor of the Licensing Authority and Civil Aviation Medical Assessor may release this medical information to relevant doctor/authority if deemed necessary.

NOTE: Medical confidentiality will be respected at all times.

…… …… ……

Date Signature of Applicant Signature of SME Eye/SME ENT/DME (Witness)

**ATTACHMENT: A-2/6**

## CIVIL AVIATION AUTHORITY OF NEPAL

## MEDICAL EXAMINATION FORM

**For use by Designated Medical Examiner**

| 1) Name: | 2) Date of Birth: | 3) Sex: Male / Female |
|---|---|---|
| 4) Type of application: Initial / Renewal / Others<br><br>Type of License applied for ATPL ( ) CPL ( ) PPL ( ) UPL( )<br><br>F/E ( ) ATC ( ) Other ( ) | 5) Class of medical assessment applied for:<br><br>I / II / III / Others | 6) Type of flying intended:<br><br>Single–crew / Multi–crew<br><br>Commercial / Instructor / Private |

| 7) Height (in cm)/Weight (in kg): | 8) BMI: | 9) Eye Color: | 10) Hair Color: | 11) Blood Pressure– seated mm Hg | | 12) Pulse– resting: | |
|---|---|---|---|---|---|---|---|
| | | | | Systolic | Diastolic | Rate(bpm): | Rhythm: Regular/ Irregular |

**CLINICAL EXAMINATION:**

| | Normal | Abnormal | | Normal | Abnormal |
|---|---|---|---|---|---|
| 13) Head, face, neck, scalp | | | 22) Anus, rectum (examine if applicable) | | |
| 14) Mouth, throat, teeth | | | 23) Genito– urinary system (examine if applicable) | | |
| 15) Nose, sinuses | | | 24) Endocrine system | | |
| 16) Ears | | | 25) Upper and lower limbs, joints | | |
| 17) Eyes | | | 26) Spine, other musculoskeletal | | |
| 18) Lungs, chest, breasts (indicate if breasts not examined) | | | 27) Nervous system | | |
| 19) Heart | | | 28) Psychiatric | | |
| 20) Vascular system | | | 29) Skin and lymphatic system | | |
| 21) Abdomen, hernia, liver, spleen | | | 30) General system | | |
| 31) Any other relevant observation or findings: | | | | | |
| 32) Identifying marks, tattoos, scars, etc.: | | | | | |
| 33) Notes: Describe every abnormal finding. Enter applicable item number before each comment. | | | | | |

**34) EAR, NOSE, THROAT AND HEARING (ATTACHMENT: A - 3/6)**

Medical Examination Form (Ear, Nose, Throat and Hearing) filled in by Specialist Medical Examiner

Dr.…… on date …… is attached.

**35) EYE, VISUAL ACUITY AND COLOR PERCEPTION (ATTACHMENT: A - 4/6)**

Medical Examination Form (Eye, Visual Acuity and Color Perception) filled in by Specialist Medical Examiner

Dr. ……..……on date ……. is attached.

| Accompanying reports | Normal | Abnormal/comment | Not performed |
|---|---|---|---|
| 51**)** Urinalysis | | | |
| 52) ECG | | | |
| 53) Chest X-ray | | | |
| 54) Audiogram | | | |
| 55) Others | | | |

| | |
|---|---|
| 56) Mental health aspects of fitness discussed. | Yes / No |
| 57) Behavioural aspects of fitness discussed. | Yes / No |
| 58) Physical aspects of fitness discussed | Yes / No |
| 59) Preventive health advice given. | Yes / No |

60**) Comments, restrictions, limitations:**

61**)Designated Medical Examiner's Recommendation**:

I hereby certify that I have examined the applicant named on this Medical Examination form. All the statements in Application and Statement form, Medical Examination forms, along with attachments, if any, embodymy findings completely and correctly. I also have studied specialist medical reports and have attached herewith.

I RECOMMEND / DONOT RECOMMEND for INITIAL/RENEWAL/OTHER licence as the applicant

MEETS/ DOES NOT MEET the medical standards prescribed in Medical Requirements, CAAN for CLASS I / II / III

Medical Certificate.

| 62) Clinic Address and Date: | 63) Designated Medical Examiner's:<br>[Block Capitals and/or stamp]<br><br>Name:<br><br>Telephone No:<br><br>E-mail:<br><br>Fax (if available): | 64)Designated Medical Examiner's signature: |
|---|---|---|

**ATTACHMENT: A-3/6**

# CIVIL AVIATION AUTHORITY OF NEPAL
## MEDICAL EXAMINATION FORM
## (Specialist - Ear, Nose, Throat and Hearing)

**For use by Specialist Medical Examiner**

| 1) Name: | 2) Date of Birth: | 3) Sex:<br>Male / Female |
|---|---|---|

| 4) Type of application:<br>Initial / Renewal / Others<br><br>Type of License applied for<br>ATPL ( ) CPL ( ) PPL ( ) UPL( )<br>F/E ( ) ATC ( ) Other ( ) | 5) Class of medical assessment applied for:<br><br>I / II / III / Others | 6) Type of flying intended:<br><br>Single–crew / Multi–crew<br><br>Commercial / Instructor / Private |
|---|---|---|

| | Normal | | Describe abnormality in detail, use additional sheet if necessary & attach to this form |
|---|---|---|---|
| | Yes | No | |
| 14) Mouth, throat, teeth | | | |
| 15) Nose, sinuses | | | |
| 16) Ears (especially eardrum appearance and mobility) | | | |
| 36) Any other relevant observation or findings | | | |

| 37) Hearing test, back turned to examiner | Whispered voice | Conversational voice | Rinne's Test | Weber Test |
|---|---|---|---|---|
| Right ear 1m | 2m | | | |
| Left ear 1m | 2m | | | |

| 38) Audiometry | 500 | 1000 | 2000 | 3000 | 4000 | 8000 |
|---|---|---|---|---|---|---|
| Right ear dB loss | [ ] | [ ] | [ ] | [ ][ ] | [ ] | |
| Left ear dB loss | [ ] | [ ] | [ ] | [ ][ ] | [ ] | |

39) Remarks, if any:

I certify that the applicant MEETS / DOES NOT MEET the medical standards prescribed in Medical Requirement, CAAN in Ear, Nose, Throat and Hearing for INITIAL/RENEWAL/OTHER for CLASS I / II / III medical certificate.

If not, specify ……..... …….

Name of Specialist Medical Examiner: ……..…… Signature: ……

Place of examination: ..... Date: .....

**ATTACHMENT: A-4/6**

# CIVIL AVIATION AUTHORITY OF NEPAL
## MEDICAL EXAMINATION FORM
### (Specialist - Eye, Visual Acuity and Color Perception)

**For use by Specialist Medical Examiner**

| 1) Name: | 2) Date of Birth: | 3) Sex:<br>Male / Female |
|---|---|---|

| 4) Type of application<br>Initial /Renewal / Others<br><br>Type of License applied for<br>ATPL ( ) CPL ( ) PPL ( ) UPL()<br><br>F/E ( ) ATC ( ) Other ( ) | 5) Class of medical assessment applied for:<br><br>I/ II / III / Others | 6) Type of flying intended:<br><br>Single–crew / Multi–crew<br><br>Commercial / Instructor / Private |
|---|---|---|

| | Normal | | Describe abnormality in detail, use additional sheet if necessary & attach to this form |
|---|---|---|---|
| | Yes | No | |
| 40) Eyes– orbit and adnexa; visual fields | | | |
| 41) Eyes –ocular motility; nystagmus, eye muscle balance | | | |
| 42) Eyes– pupils and optic fundi | | | |
| 43) Any other relevant observation or findings | | | |

44)Distant vision at 6 m

| | Uncorrected | | Glass | Contact Lenses |
|---|---|---|---|---|
| Right eye | | Corrected to | | |
| Left eye | | Corrected to | | |
| Both eyes | | Corrected to | | |

45) Intermediate vision: N14 at 100 cm

| | Uncorrected | | Glass | Contact Lenses |
|---|---|---|---|---|
| Right eye | | Corrected to | | |
| Left eye | | Corrected to | | |
| Both eyes | | Corrected to | | |

46) Near vision: N5 at 30-50 cm

| | Uncorrected | | Glass | Contact Lenses |
|---|---|---|---|---|
| Right eye | | Corrected to | | |
| Left eye | | Corrected to | | |
| Both eyes | | Corrected to | | |

| 47) Spectacles | | 48) Contact Lens | |
|---|---|---|---|
| Yes | No | Yes | No |
| Type: unifocal/ bifocal/ varifocal/ look-over | | Type: hard/ soft/ gas permeable/ disposable | |

| 49) Color Perception | Normal / Abnormal |
|---|---|
| Pseudo-isochromatic plates | Type: |
| No. of plates: | No. of errors: |

| 50) Remarks, if any |
|---|

I certify that the applicant MEETS / DOES NOT MEET the medical standards prescribed in Medical Requirement, CAAN in Eye, Visual Acuity and Color Perception for INITIAL/RENEWAL/OTHER for CLASS I / II /III medical certificate.

If not, specify ……

Name of Specialist Medical Examiner: …….…… Signature: ……..

Place of examination: ..... Date: .....

**ATTACHMENT: A-5/6**

## CIVIL AVIATION AUTHORITY OF NEPAL
## MEDICAL ASSESSMENT FORM
**For use by Civil Aviation Medical Assessor**

**Part A**

| | | |
|---|---|---|
| Full Name: | Sex: Male / Female | Date of birth: |
| Address: | | |
| Contact Details | Mobile: | E–mail: |
| Licence No. (ATPL/CPL/MPL/PPL/UPL/FE/ATC)……. | | Expiry Date: |
| Airline: | Family physician's or Airline Doctor's Name: | |
| | Address (Clinic/Hospital): | |
| | Mobile: | E–mail: |
| Total flight hours: | Total flight hours since last medical: | Last Medical examination: Date/Place |
| Any aircraft accident or reported incident? Yes / No<br>If yes, Details, Date & Place: | | |
| Any inflight incapacitation? Yes / No<br>If yes, Details, Date & Place: | | |

**Part B**

| |
|---|
| Aviation medical assessment previously denied, suspended or revoked by any Licensing authority? Yes / No<br>If yes, Details, Date & Place: |
| Medical events or illness any time: Yes / No |
| Any abnormal findings in ―Application and Statement Form‖ and in ―Medical Examination Forms‖: Yes / No |
| Limitations/Restriction on Licence/ Medical Assessment previously prescribed? Yes / No<br>If yes, Details: |
| Assessment, Remarks, Recommendation: |
| Any communication to the applicant: |

**Part C**

| |
|---|
| Limitations: |

I RECOMMEND / DO NOT RECOMMEND for INITIAL/RENEWAL/OTHER licence as the applicant

MEETS / DOES NOT MEET the medical standards prescribed in Medical Requirements, CAAN for CLASS I / II / III

Medical Certificate.

Date:

……..
Signature
Civil Aviation Medical Assessor

ATTACHMENT: A– 6/6

## CIVIL AVIATION AUTHORITY OF NEPAL

### MEDICAL CERTIFICATE

**Name & Address**

**Licence Number:**

| Date of Birth | Height in cm | Weight in Kg | Hair color | Eyescolor | Sex | Blood Group |
|---|---|---|---|---|---|---|
| | | | | | | |

**This certifies that the holder has met the medical standards prescribed in Medical Requirements, CAAN for class ……. Medical Certificate.**

| LIMITATIONS | |
|---|---|

| Date of Medical Certification | Valid until |
|---|---|
| | |

**Signature of Civil Aviation Medical Assessor** **Stamp**

**Signature of Holder**

**Note: Bring this Certificate on next medical examination.**

ATTACHMENT: B– 1/2

## CIVIL AVIATION AUTHORITY OF NEPAL

### INSTRUCTION FOR APPLICANTS

This Application and Statement Form, along with all attached Report Forms and papers will be transmitted to the Medical Assessor of the Licensing Authority. Medical confidentiality will be respected at all times. The Applicant must personally tick or circle or complete in full all questions (boxes) on the Application and Statement Form. Writing must be in Block letters with a black ballpoint pen and must be legible. If more space is required to answer any question, attach a plain sheet of paper and sign with the date.

NOTICE: Failure to complete the Application and Statement Form in full or to write legibly will result the form not being accepted. Making false or misleading statements or withholding relevant information in respect of this application may result in criminal prosecution, refusal of this application and/or withdrawal of any Medical Assessment(s) previously granted.

| | |
|---|---|
| 1. FULL NAME:<br>State name in full. | 2. DATE OF BIRTH:<br>Specify in order: day (DD), month (MM), year (YYYY) in numerals, Example: 22-08-1960. |
| 3. GENDER:<br>Tick appropriate item. | 4. ADDRESS:<br>State main place of residence, with contact details, telephone number and e-mail address. |
| 5. NATIONALITY:<br>State name of country of citizenship | 6. OCCUPATION:<br>State occupation. |
| 7. EMPLOYER / AIRLINE:<br>State principal employer. | 8. FAMILY PHYSICIAN'S AND/OR AIRLINE DOCTOR"S NAME AND ADDRESS (if applicable).<br>Provide contact details of family physician or airline doctor. |
| 9.AVIATOIN LICENCE HELD (TYPE):<br>Write Licence number and country of issue. Provide information concerning Licences already held. | 10. TOTAL FLIGHT TIME (HOURS):<br>For pilots, state total number of hours flown in an operating capacity. For others, write "Not applicable. |
| 11. LAST MEDICAL EXAMINATION:<br>State date (day/month/year) and place (city/town and country) of last aviation medical examination. | 12. ANYLIMITATIONSONTHELICENCE/MEDICAL CERTIFICATE:<br>Provide details of any limitations on your Licence(s) and/or medical certificate(s), e.g. correcting lenses, valid daytime only, multi-pilot operations only |
| 13. HAVE YOU EVER HAD AN AVIATION MEDICAL ASSESSMENT DENIED, SUSUPENDED OR REVOKED BY ANY LICENSING AUTHORITY?<br>Tick "Yes" if you have ever had a Medical Assessment denied, suspended or revoked, even if temporarily. Provide the date, place and details, and discuss with the medical examiner. | 14. ANY AIRCRAFT ACCIDENT OR REPORTED INCIDENT:<br>If "Yes" provide details. If already given in earlier statement, state so. |
| 15. AIRCRAFT CURRENTLY FLOWN:<br>State the name of aircraft currently flown e.g. Piston engine, Turbo prop, Jet etc. | 16. TYPE OF APPLICATION:<br>Tick appropriate item. Tick "initial" if this is your first application to this Licensing authority, even if you hold other similar Licence issued by another Licensing authority. Mention validation of foreign licence, if applicable |
| 17. CLASS OF MEDICAL ASSESSMENT APPLIED FOR:<br>Tick appropriate item. | 18.TYPE OF FLYING INTENDED :<br>Provide details of intended flying e.g. Single crew or Multi crew; Commercial, Instructor, Private. Write NA if not applicable. |
| 19. DO YOU SMOKE TOBACCO PRODUCTS?<br>Tick applicable box. Current smokers should state type and amount e.g. 20 cigarettes per day; pipe, 30 grams weekly. | |
| 20. DO YOU DRINK ALCOHOLIC BEVERAGES?<br>State average weekly intake in units Example: 10 units/wk, 20 units/wk (spirits, beer, wine).<br>Note: 1 unit = 10 g of alcohol.<br>1 unit corresponds to 30 ml of spirits, 100 ml of wine and 300 ml of beer. Spirits include whisky, brandy, gin, rum, vodka. | |
| 21. DO YOU CURRENTLY USE ANY MEDICATION INCLUDING NON- PRESCRIBEDMEDICATION OR PSYCHOCATIVE SUBSTANCES? State medications prescribed by a medical practitioner and also non-prescribed medication e.g. herbal remedies, medications bought without prescription. If "Yes" is ticked, provide details: name of medication, date treatment was commenced, daily/weekly dose and the condition or problem for which the medication is taken. Psychoactive substances include opioids, cannabinoids, cocaine, sedatives, hypnotics, hallucinogens, psycho stimulants etc. | |
| 22. GENERAL AND MEDICAL HISTORY:<br>All items from 101 to 132 and 135 to 144 must have answers "Yes" or "No" ticked in appropriate boxes. Items 133 and 134 to be ticked by females only. Do not tick "Yes" to occasional self-limiting, mild illnesses like common cold, aches, pains etc.<br>All the questions asked are medically important, even though this may not be readily apparent. Items 135 to 144 relate to history of immediate family members. | |
| 23. REMARKS:<br>For yes on any of the items in 22, kindly elaborate.<br>If the information has been reported in a previous Application and Statement Form to the Licensing authority issuing the Medical Assessment applied for and there has been no change in your condition, you may state "Previously reported, Unchanged". However you must tick "Yes" for that condition. | |
| 24. DECLARATION AND CONSENT TO RELEASE OFMEDICAL INFORMATION:<br>Do not sign or date this section until indicated to do so by the Designated Medical Examiner who will act as witness and sign also. | |

AN APPLICANT HAS THE RIGHT TO REFUSE ANY EXAMINATION AND TEST AND TO REQUEST REFERRAL TO THEAUTHORITY.HOWEVER, THIS MAY ENTAIL TEMPORARY DENIALOF MEDICAL CERTIFICATION.

ATTACHMENT: B– 2/2

## CIVIL AVIATION AUTHORITY OF NEPAL

## INSTRUCTION FOR DESIGNATED MEDICAL EXAMINER/SPECIALISTMEDICAL EXAMINER

## ON HOW TO COMPLETETHEMEDICAL EXAMINATION FORM

All questions (boxes) on the Medical Examination Form must be completed in full.

Writing must be in BLOCK LETTERS with a black ballpoint pen and must be legible. Exert sufficient pressure to make legible copies. If more space is required to answer any question, attach a plain sheet of paper with the applicant's name and birth date, the additional information required, followed by your signature and the date. The following instructions apply to the same numbered headings on the Medical Examination Form.

NOTICE: Failure to complete the Medical Examination Form in full as required or to write legibly may result in rejection of the application in total and may lead to withdrawal of any Medical Assessment issued. Making false or misleading statements or withholding relevant information by Designated Medical Examiner/ Specialist Medical Examiner may result in disciplinary action including criminal prosecution.

1. NAME: State name in full.
2. DATE OF BIRTH: Specify in order: day(DD), month(MM),year(YYYY) in numerals, Example: 22-08-1960.
3. SEX: Tick or circle appropriate item.
4. TYPE OF APPLICATION: Tick or circle appropriate item.
   Initial: Initial examination for Medical Assessment Class I, II or III.
   Renewal: Subsequent routine examinations.
   Other: Examinations other than initial or subsequent renewal examinations.
5. CLASS OF MEDICAL ASSESSMENT APPLIED FOR: Tick or circle appropriate item.
6. TYPE OF FLYING INTENDED: Provide details of intended flying e.g. Single crew or Multi crew; Commercial, Instructor, Private. Write NA if not applicable.
7. HEIGHT in cm/ WEIGHT in kg: Measure height without shoes in centimetres. Measure weight in light dress in kilograms
8. BMI: Calculate BMI using formula weight in kg divided by (height in meter)$^2$
9. EYE COLOR: State color of applicant's eyes from the following list: brown, blue, green, hazel, grey, multi.
10. HAIR COLOR: State color of applicant's hair from the following list: brown, black, blonde, auburn, red ,grey, white.
11. BLOOD PRESSURE: Blood Pressure readings should be recorded as Phase I for Systolic pressure and Phase V for Diastolic pressure. The applicant should be seated. Record blood pressure in mm Hg. You may be required to check BP after a few minutes of rest if found high in the first reading.
12. PULSE (RESTING): The pulse rate should be recorded in beats per minute and the rhythm should be recorded as regular or irregular.

**SECTIONS 13 to 30inclusive constitute the general clinical examination and each of the sections must be checked as Normal or Abnormal.**

13. HEAD, FACE, NECK, SCALP: To include appearance, range of neck movements, symmetry of facial movements, etc.
14. MOUTH, THROAT, TEETH: To include appearance of buccal cavity, soft palate motility, tonsillar area, pharynx as well as gums, teeth and tongue.
15. NOSE, SINUSES: To include appearance and any evidence of nasal obstruction or sinus tenderness on palpation.
16. EARS: To include otoscopy of external ear, ear canal, and tympanic membrane. Eardrum motility assessed by valsalva maneuver or by pneumatic otoscopy. If wax is obstructing the view, clean it first.
17. EYES: General examination of both eyes, do visual fields examination by confrontation.To include appearance, size, reflexes, light reflex and fundoscopy. Look for presence of any corneal scars. To include range of movement of eyes in all directions; symmetry of movement of both eyes; ocular muscle balance; convergence; accommodation; nystagmus.
18. LUNGS, CHEST and BREASTS: To include inspection of chest for deformities, operation scars, abnormality of respiratory movement, auscultation of breath sounds. Physical examination of the female applicant's breasts is optional. If not examined, state so.

19. HEART: To include apical heartbeat, position, auscultation for murmurs, carotid bruits, palpation for thrills.
20. VASCULAR SYSTEM: To include examination for varicose veins, character and feel of pulse, peripheral pulses, evidence of peripheral vascular disease.
21. ABDOMEN, HERNIA, LIVER, SPLEEN: To include inspection of abdomen; palpation of internal organs; particularly check for inguinal hernias.
22. ANUS, RECTUM: Clinical examination is done if applicable and indicated by history. If not examined, state so.
23. GENITO-URINARY SYSTEM: Clinical examination is done if applicable and indicated by history. If not examined, state so.
24. ENDOCRINE SYSTEM: To include inspection, palpation for evidence of hormonal abnormalities/imbalance; thyroid gland.
25. UPPER AND LOWER LIMBS, JOINTS: To include full range of movements of joints and limbs, any deformities, weakness or loss. Look for evidence of arthritis.
26. SPINE, OTHER MUSCULOSKELETAL: To include range of movements, deformity, abnormalities of joints.
27. NEUROLOGIC – REFLEXES ETC: To include reflexes, sensation, power, vestibular system– balance, Romberg test.
28. PSYCHIATRIC: To include evaluation of appearance, mood/thought, behaviour (see also 56-57).
29. SKIN and LYMPHATICSYSTEM: To include inspection of skin; inspection and palpation for lymphadenopathyetc.
30. GENERAL SYSTEM: All other areas and systems, including nutritional status.
31. ANY OTHER RELEVANT OBSERVATION OR FINDINGS: Write down any other relevant observation or findings seen during examination.
32. IDENTIFYING MARKS, TATTOOS, SCARS, ETC: List items that may be used for physical identification.
33. NOTES: Any notes, comments or abnormalities to be described – add extra notes if required on separate sheet of paper, write name, date of birth of applicant; then sign and date.
34. EAR, NOSE, THROAT AND HEARING: Write the name of Specialist Medical Examiner from ENT group who examined the applicant along with date examined.
35. EYE, VISUAL ACUITY AND COLOR PERCEPTION: Write the name of Specialist Medical Examiner from EYE, VISUAL ACUITY AND COLOR PERCEPTION group who examined the applicant along with date examined.
36. ANY OTHER RELEVANT OBSERVATION OR FINDINGS RELATED TO ENT EXAMINATION: Write any other relevant findings related to ENT examination.
37. HEARING: Tick appropriate box to indicate hearing ability as tested separately in each ear in whispering voice at 1m and conversation voice at 2m.The applicant should not be able to observe the examiner‘s lips.
38. AUDIOMETRY: If pure-tone audiometry is required, the frequencies from 125 to 8000 Hz should be measured and the audiometric results recorded in an audiogram. The full range of frequencies has diagnostic value and is useful for provision of advice concerning hearing conservation.
39. REMARKS, IF ANY: Write down any other remarks if it is relevant.
40. EYES – ORBIT AND ADNEXA, VISUAL FIELDS: General examination of both eyes, do visual fields examination by confrontation.
41. EYES – PUPILS AND OPTIC FUNDI: To include appearance, size, reflexes, light reflex and fundoscopy. Look for presence of any corneal scars.
42. EYES – OCULAR MOTILITY, NYSTAGMUS: To include range of movement of eyes in all directions; symmetry of movement of both eyes; ocular muscle balance; convergence; accommodation; nystagmus.
43. ANY OTHER RELEVANT OBSERVATION OR FINDINGS RELATED TO EYE EXAMINATION: Write any other relevant findings related to EYE examination.
44. DISTANT VISION AT 6 METRES: Each eye to be examined separately, then both together. First without correction, then with spectacles (if used) and lastly with contact lenses, if used. Record visual acuity in appropriate boxes. Use Snellen‘s chart or any other standard chart.
45. INTERMEDIATE VISION AT 1 METRE: Each eye to be examined separately and then both together. First without correction, then with spectacles if used and lastly with contact lenses if used. Record visual acuity in appropriate boxes as ability to read N14 at 100 cm.
46. NEAR VISION AT 30–50 CM: Each eye to be examined separately and then both together. First without correction, then with spectacles if used and lastly with contact lenses, if used. Record visual acuity in appropriate boxes as ability to read N5 at 30–50 cm.Note: Bifocal contact lenses and contact lenses correcting for near vision only are not acceptable.
47. SPECTACLES: Tick appropriate box signifying if spectacles are or are not worn by applicant. If used, state whether unifocal, bifocal, varifocal or ―look-over‖.
48. CONTACT LENSES: Tick appropriate box signifying if contact lenses are or are not worn. If worn, state type from the following list; hard, soft, gas-permeable or disposable.

49. COLOR PERCEPTION: If required, tick appropriate box signifying if color perception is normal or not. State which test is used e.g. Ishihara 24 plate. If abnormal, state number of plates read incorrectly.
50. REMARKS, IF ANY: Write down any other remarks if it is relevant.
51. to 55. ACCOMPANYING REPORTS: One box opposite each of these sections must be ticked. If the test is not required and has not been performed, then tick the NOT PERFORMED box. If the test has been performed (whether required or on indication) complete the normal or abnormal box, as appropriate. In Other, write the name of any accompanying reports done like chest X-ray, exercise ECG, ECHO, lipid profile, blood sugar, or any other additional test.
56. MENTAL HEALTH ASPECTS OF FITNESS DISCUSSED: Applicants should be asked about their mental health and if they have any concerns about this aspect of their medical fitness. Mental health aspects refer to conditions such as depression and anxiety. Questions based on those that have been validated in primary health care settings should be used where possible, e.g. concerning depression. Fatigue-related issues can also be addressed in this part of the examination. Medical examiners should be conversant with the causes, prevention and treatment of fatigue, especially those related to sleep apnea and/or which require medication to be alleviated. It is not required that the contents of such discussions are recorded unless they impact on the Medical Assessment (see Manual of Civil Aviation Medicine for guidelines).
57. BEHAVIORAL ASPECTS OF FITNESS DISCUSSED: Applicants should be asked about behavioural aspects related to their health and if they have any concerns about this aspect of their medical fitness. Behavioural aspects refer to such behaviours ,e.g. as problematic use of substances.
58. PHYSICAL ASPECTS OF FITNESS DISCUSSED: Applicants should be asked about physical aspects of their health and if they have any concerns about this aspect of their medical fitness. Questions concerning physical exercise, weight, diet, smoking, etc., can be covered in this portion of the medical examination.. Examiners should be aware of standard preventive guidelines concerning common physical diseases and provide such advice as appropriate. Since gastrointestinal upset is a common cause of in-flight incapacitation, advice concerning healthy eating habits, especially when abroad, may usefully be given in this section. It is not required that the contents of such discussions are recorded unless they impact on the Medical Assessment (see Manual of Civil Aviation Medicine for guidelines).
59. PREVENTIVE HEALTH ADVICE GIVEN: The goal of items56-58is to address adverse aspects of mental, behavioural and physical health that are amenable to prevention. State whether preventive advice has been given by ticking Yes or No.
60. COMMENTS, RESTRICTIONS, LIMITATIONS, ETC: Enter here your findings and assessment of any abnormality in the history or examination. State also any limitation required.
61. CIVIL AVIATION MEDICAL EXAMINER'S RECOMMENDATION: Tick or circle as appropriate. FIT/UNFIT; INITIAL/RENEWAL/OTHERS; CLASS I /II / III. If recommendation is not made, the reason must be stated.
62. CLINIC ADDRESS AND DATE: Enter the address of clinic where applicant was examined and the date of examination. The date of examination is the date of the general examination and completion of all required tests.
63. DESIGNATED MEDICAL EXAMINER'S NAME, TEL NUMBER, E MAIL, FAX(if available): Write your name, contact telephone number and e-mail address (and fax if available) or put in stamp stating all details.
64. DESIGNATED MEDICAL EXAMINER'S SIGNATURE: Sign in this box.

**----------END----------**

ATTACHMENT: C– 1/3

# CIVIL AVIATION AUTHORITY OF NEPAL

CLINIC/HOSPITAL INSPECTION CHECKLIST

**DESIGNATED MEDICAL EXAMINER**

Name of Applicant DME: _____ Address (Clinic / Hospital):_____

Contact Number: _____ Email: _____

| 1. Equipment | Present | Not Present | Remarks |
|---|---|---|---|
| Stethoscope | | | |
| BP Instrument | | | Taken by Doctor/Technician/Nurse |
| Weighing Machine | | | |
| Height scale | | | |
| Knee hammer | | | |
| Torch | | | |
| ECG machine | | | |
| X-ray view box | | | |
| Urine strip test | | | |

| 2. Physical Facility | Present | Not Present |
|---|---|---|
| Examination Room | | |
| Waiting Room | | |
| Parking Area | | |
| Driveway/Approach | | |

| 3. Other Facilities | Present/Adequate | Not Present/Inadequate |
|---|---|---|
| Telephone | | |
| Lighting | | |
| Heating | | |
| Cleanliness | | |
| Noise management | | |

| 4. Staff | Present | Not Present |
|---|---|---|
| Nurse | | |
| Physician Assistant | | |
| Technician | | |
| Receptionist | | |

| 5. Clinic | |
|---|---|
| Type | Hospital/Nursing Home/Polyclinic/Private |
| Preferred Days | |
| Preferred Time | |

**6. Comments if any:**

Recommendations : Approved /Not approved

_____ _____ _____

Signature of Applicant DME Signature of CAMA Signature of Inspector, FSSD

Date: _____

ATTACHMENT: C-2/3

# CIVIL AVIATION AUTHORITY OF NEPAL

SPECIALIST MEDICAL EXAMINER CLINIC/HOSPITAL INSPECTION CHECKLIST

## SPECIALIST MEDICAL EXAMINER: EYE

Name of Applicant SME: _____ Address (Clinic / Hospital): _____

Contact Number: _____ Email: _____

| 1. Equipment | Present | Not Present | Remarks |
|---|---|---|---|
| Distant Vision Chart | | | |
| Near Vision Chart | | | |
| Color Vision Plates | | | |
| Ophthalmoscope | | | |
| Slit Lamp | | | |
| Torch | | | |

| 2. Physical Facility | Present | Not Present |
|---|---|---|
| Examination Room | | |
| Waiting Room | | |
| Parking Area | | |
| Driveway/Approach | | |

| 3. Other Facilities | Present/Adequate | Not Present/Inadequate |
|---|---|---|
| Telephone | | |
| Lighting | | |
| Heating | | |
| Cleanliness | | |
| Noise management | | |

| 4. Staff | Present | Not Present |
|---|---|---|
| Nurse | | |
| Physician Assistant | | |
| Technician | | |
| Receptionist | | |

| 5. Clinic | |
|---|---|
| Type | Hospital/Nursing Home/Polyclinic/Private |
| Preferred Days | |
| Preferred Time | |

**6. Comments if any:**

Recommendations : Approved / Not approved

_____ _____ _____

Signature of Applicant SME Signature of CAMA Signature of Inspector, FSSD

Date: _____

ATTACHMENT: C-3/3

# CIVIL AVIATION AUTHORITY OF NEPAL

SPECIALIST MEDICAL EXAMINER CLINIC/HOSPITAL INSPECTION

CHECKLIST **SPECIALIST MEDICAL EXAMINER: ENT**

Name of Applicant SME: _____ Address (Clinic / Hospital): _____

Contact Number: _____ Email: _____

| 1. Equipment | Present | Not Present | Remarks |
|---|---|---|---|
| Otoscope | | | |
| Tuning Fork | | | |
| Headset: mirror/lamp | | | |
| Audiometry | | | |
| Torch | | | |

| 2. Physical Facility | Present | Not Present |
|---|---|---|
| Examination Room | | |
| Waiting Room | | |
| Parking Area | | |
| Driveway/Approach | | |

| 3. Other Facilities | Present/Adequate | Not Present/Inadequate |
|---|---|---|
| Telephone | | |
| Lighting | | |
| Heating | | |
| Cleanliness | | |
| Noise management | | |

| 4. Staff | Present | Not Present |
|---|---|---|
| Nurse | | |
| Physician Assistant | | |
| Technician | | |
| Receptionist | | |

| 5. Clinic | |
|---|---|
| Type | Hospital/Nursing Home/Polyclinic/Private |
| Preferred Days | |
| Preferred Time | |

**6. Comments if any:**

Recommendations : Approved /Not approved

_____ _____ _____

Signature of Applicant SME Signature of CAMA Signature of Inspector, FSSD

Date: _____