



**GOVERNMENT OF INDIA
DIRECTORATE GENERAL OF CIVIL AVIATION**

**HANDBOOK
FOR
DGCA EMPANELLED MEDICAL EXAMINERS/
EXAMINATION CENTRES**

Medical Directorate

22 October 2018

(Rev. 2, dated 20th October 2022)

This Manual contains medical examination procedures and other related information to be followed by DGCA Empanelled Medical Examiners and Medical Examination Centres

**HANDBOOK FOR
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RECORD OF REVISIONS

The revisions are carried out as and when required to accommodate the amendments made in Aircraft Rules, Civil Aviation Requirements and to enhance the efficiency for issue of Medical Assessment to aircrew.

The space below is provided to keep a record of such revisions.

RECORD OF REVISIONS

No.	Date of Revision	Remarks
Issue I	22 Oct 2018	
Revision 1	31 Oct 2018	Page No. 2, Annexures A,B & C
Revision 2	20 Oct 2022	Para 9 on Assessment of Mental Health

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1. INTRODUCTION

With an exponential growth in aviation sector over the past few years, a need was felt to prepare a comprehensive guidance material in form of a handbook which will help the Medical Examiners in assessing the civil aircrew in a systemic manner. Medical fitness for a civil aircrew is not only of paramount importance for the aircrew throughout their flying career, but is also essential for maintaining high standards of flight safety. The "Handbook for DGCA empanelled Medical Examiners/Examination Centres" will serve as a useful tool for Medical Examiners in conduct of medical examination of civil aircrew.

Approved vide AV/22025/01-DMS/Med dated 22nd October 2018

Revision 1 approved vide AV/22025/01-DMS/Med dated 31st October 2018

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2. SELECTION PROCEDURE FOR MEDICAL EXAMINERS

2.1 Class 1 Medical Examiner.

(a) The Medical Examiner shall meet the following qualification requirements-

(i) Academic qualifications

(aa) A post-graduate degree in Aviation Medicine

Or

(ab) A post-graduate degree in Medicine with a minimum two months formal training in Aviation Medicine.

(ii) Experience

(aa) A one year tenure at IAM/ AFCME/ MEC (E) or DGCA approved Class 1 Medical Examination Centres/ DGCA Medical assessor,

Or

(ab) Ten years' experience in the medical department of a scheduled operator with direct and continued responsibility of medical fitness of civil aircrew along with a one year experience of being a DGCA empanelled Class 2 Medical Examiner with a satisfactory record.

Or

(ac) Five years' experience of being a DGCA empanelled Class 2 Medical Examiner with a satisfactory record.

(b) Other requirements

(i) Shall be registered with Medical Council of India/State Medical Council.

(ii) Shall have the requisite infrastructure and facility to conduct the medical examination (location, place, timings, IT, medical equipments). Certain reputed consultants in ENT, Ophthalmology, Cardiology and Psychiatry may be co-opted by the Medical Examiner. Similarly, diagnostic facilities may also be co-opted. In case of Laboratories, they must be NABL accredited ones.

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(iii) It will be the responsibility of the Medical Examiner to facilitate the medical examination in the least possible time and with minimum inconvenience to the aircrew.

(c) Selection process

(i) Information regarding empanelment shall be made available in the 'Public Notices' section of the DGCA website (<https://www.dgca.gov.in>). The notification would be published every year, based on the requirement.

(ii) In response to the notification, persons desirous of being empanelled as Class 1 Medical Examiners by DGCA for conducting Class 1 renewal and Class 2 initial and renewal medical examination shall apply on plain paper to Director Medical Services (Civil Aviation), Directorate General of Civil Aviation, Medical Directorate, Opposite Safdarjung Airport, New Delhi-110003.

(iii) The envelope shall be superscribed 'Application for Class 1 Medical Examiner'. Application by e-mail/Fax shall not be accepted. Applicants should ensure that all requirements mentioned have been fulfilled.

(d) Professional interview

(i) Applicants fulfilling qualifications and experience requirements specified above, shall be called for a professional interview for empanelment as Class 1 Medical Examiners by a DGCA Board consisting of a DGCA officer and two representatives of DGMS (Air) and DMS (CA).

(ii) Applicants shall be expected to have adequate awareness of provisions regulating the Class 1 & 2 renewal medical examination including knowledge of relevant Civil Aviation Requirements (CARs), Aeronautical Information Circulars (AICs) including ICAO Standards and Recommended practices.

(iii) Applicants are expected to make their own travel arrangements for attending the interview.

(iv) Applicants recommended by the Board shall be required to make their medical facility available for inspection within one month of interview.

(e) Assessment of medical facility

(i) Class 1 Medical Examiner shall be permitted to operate from one medical facility only.

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(ii) The facility shall have an office for the Medical Examiner having a telephone connection with internet facility and Fax (for the purpose of according appointments/ interactions with aircrew/DGCA).

(iii) The facility shall have place for conduct of medical examination and filling up of necessary forms by the candidate/ aircrew.

(iv) The medical facility may be either owned or taken on rent by Medical Examiner.

Note: In case the Medical Examiner is using the medical facility of a renowned hospital then No Objection Certificate (NOC) from the hospital permitting use of their facility for conduct of medical examination during the period of empanelment shall be submitted to DGCA.

(v) Class 1 Medical Examiner may choose to conduct the entire medical examination by him/herself or co-opt other specialists/ hospitals/ institutes for ENT/Ophthalmology/ECG/ laboratory tests.

(vi) The medical facility should have availability of female attendant who should be present during medical examination of all female candidate/aircrew.

(vii) The responsibility of all medical examination shall be on the Class 1 Medical Examiner who is required to ensure that the medicals are done comprehensively complying with ethical practices. Hence, he/she should make these co-opted specialists aware of the significance of aviation medical examination and its implications. The co-opted specialists shall have to be disclosed by the Medical Examiner.

(viii) The initial inspection of the facility shall be conducted as per checklist mentioned in CAR Section 7 Series C Part III Issue 1 on 'Empanelment of Medical Examiners for conduct of Class 1 Medical Examination' dated 23 June 2017 by DMS (CA) or Senior Medical Officer/Aviation Medicine Specialist nominated by DGMS (Air). The inspection shall include inspection of co-opted facilities also.

(f) Approval. On completion of successful interview and inspection, Class 1 Medical Examiners will be empanelled for a period of 3 years which may be extended for a further period of three years, subject to re-assessment.

(g) Extension of approval

(i) Class 1 Medical Examiners (i) may apply for extension to DGCA after completion of two and half years.

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(ii) For extension, Class 1 Medical Examiner should have attended atleast one physical workshop and two e-workshops conducted by DGCA in the last 3 years and there should not be any case of proficiency related matter or professional misconduct.

(iii) Inspection of medical facility shall be done prior to grant of extension of Class 1 Medical Examiner status and as and when felt necessary by DMS (CA).

(iv) The application for extension shall be assessed by a Board consisting of representative from DGCA, PDMS (S) & DMS (CA) which shall be approved by DGCA based on the recommendations of DGMS (Air).

2.2 Class 2 Medical Examiner.

(a) Academic qualifications

(i) MBBS

(ii) Two weeks training in Aviation Medicine at IAM, Bangalore

(b) Other mandatory requirements

(i) Shall be registered with Medical Council of India/State Medical Council.

(ii) Shall have the requisite infrastructure and facility to conduct the medical examination (location, place, timings, IT, medical equipment). Certain reputed consultants in ENT, Ophthalmology, Cardiology and Psychiatry may be co-opted by the Medical Examiner. Similarly, diagnostic facilities may also be co-opted. In case of Laboratories, they must be NABL accredited.

(iii) He/She must submit NOC from his/her Employer.

(iv) It will be the responsibility of the Medical Examiner to facilitate the medical examination in the least possible time and with minimum inconvenience to the aircrew.

(c) Class 2 medical examination can be carried out by the following

(i) All authorized Class 1 medical authorities (except Dr Balabhai Nanavati Hospital, Mumbai & Apollo Heart Centre, Chennai)

(ii) All DGCA approved Class 2 Medical Examiners, who are practitioners of modern medicine and having a minimum of MBBS qualification and registered with the Medical Council of India and who have

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received the approved training in the subject of Aviation Medicine at IAM, Bangalore.

(iii) All authorised Class 1 Medical Examiners.

(d) Selection process

(i) Information regarding empanelment shall be made available in the 'Public Notices' section of the DGCA website. The notification would be published every year based on the requirement.

(ii) In response to the notification, persons desirous of being empanelled as Class 2 Medical Examiners by DGCA for conducting Class 2 Initial and Renewal medical examination shall apply on plain paper to Director Medical Services (Civil Aviation), Directorate General of Civil Aviation, Medical Directorate, Opposite Safdarjung Airport, New Delhi-110003.

(iii) The envelope shall be superscribed 'Application for Class 2 Medical Examiner'. Application by e-mail/fax shall not be accepted. Candidates should ensure that all requirements mentioned have been fulfilled.

(e) Professional interview

(i) Applicants fulfilling qualifications and experience requirements specified above shall be called for a professional interview for empanelment as Class 2 Medical Examiners by a DGCA Board consisting of a DGCA officer and two representatives of DGMS (Air) and DMS (CA).

(ii) Applicants shall be expected to have adequate awareness of provisions regulating the Class 2 initial & renewal medical examination including knowledge of relevant CARs, AIC's and ICAO Standards and Recommended practices.

(iii) Applicants are expected to make their own travel arrangements for attending the interview.

(f) Approval

(i) On completion of successful interview, Class 2 Medical Examiner will be empanelled for a period of 3 years which may be extended for a further period of three years, subject to re-assessment.

(g) Medical facility

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(i) The medical facility shall have an office for the Medical Examiner having a telephone connection with internet and FAX (for the purpose of according appointments /interactions with candidate and DGCA).

(ii) The medical facility shall have place for conduct of medical examination and filling up of necessary forms by the candidate/aircrew.

(iii) The medical facility may be either owned or taken on rent by Medical Examiner.

Note- In case the Medical Examiner is using the medical facility of a renowned hospital then NOC from the hospital permitting to use of their facility for conduct of medical examination during the period of empanelment shall be submitted to DGCA.

(iv) Class 2 Medical Examiner may choose to conduct the entire medical examination by him/herself or co-opt other specialists/ hospitals/ institutes for ENT/Ophthalmology/ECG/Laboratory tests.

(v) The responsibility of all medical examination shall be on the Class 2 Medical Examiner who is required to ensure that the medical examination is conducted comprehensively complying with ethical practices. Hence, he/she should make these co-opted specialists also aware of the significance of aviation medical examination and its implications. The co-opted specialists shall have to be disclosed by the Medical Examiner.

(vi) The medical facility should have availability of a female attendant who should be present during medical examination of all female candidates/aircrew.

(h) Extension of approval

(i) Class 2 Medical Examiners may apply for extension to DGCA after completion of two and half years.

(ii) For extension, the Class 2 Medical Examiner should have attended atleast one physical & two E-workshops conducted by DGCA in the last 3 years to update their knowledge regarding Aviation Medicine and policies/ guidelines of DGCA on medical matters. There should be no case of proficiency related matter or professional misconduct against the Medical Examiner.

(iii) The application for extension shall be assessed by a Board consisting of representative from DGCA, PDMS (S) & DMS (CA) which

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shall be approved by DGCA based on the recommendations of DGMS (Air).

(iv) Experience of 01-week training in Aviation Medicine will be considered for extension of empanelment of only those Class 2 Medical Examiners who were empanelled before September 2018.

2.3 Class 3 Medical Examiner

Class 3 renewal medical examination will be carried out by DGCA empanelled Class 3 medical examiners. There will be no separate empanelment procedure for Class 3 medical examiners. The existing DGCA empanelled Class 1 medical examiners and Class 2 medical examiners (who have more than 3 years of experience as DGCA medical examiner) shall be nominated as Class 3 medical examiners and their list will be published on the website.

3. PROCEDURE FOR CONDUCT OF MEDICAL EXAMINATION

3.1 General guidelines

(a) It is the responsibility of Medical Examiners to interview and perform a complete examination on all applicants for aviation medical certification. Class 2 Medical Examiners are the first point of official contact with candidates who have chosen flying as one of their career options.

(b) In aviation, a more important concept is that of sudden and/or subtle incapacitation. This may arise from such diverse stresses as the pain of acute renal colic or the subtle loss of vision that results from an occult glaucoma. The flying aspirants, at times, may not volunteer information which may affect their medical certification. It is imperative on the part of Medical Examiners to conduct medical examination thoroughly.

(c) What constitutes medical fitness for flying is not as simple as mere absence of disease. Good health does not always mean fitness for flying, nor does poor health necessarily mean unfitness. When interpreting the requirements in aviation sector, it is important to bear in mind the purpose of having a set of established standards and of performing aeromedical examinations to ensure that these requirements are met primarily, keeping flight safety in mind.

(d) Few basic principles are essential when assessing an application's medical fitness for aviation duties, namely-

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- (i) The applicant should be physically and mentally capable of performing the duties of the license or rating applied for or held.
- (ii) There should be no medical reasons, which make the applicant liable to incapacitation while performing duties to a degree that flight safety might be jeopardized
- (iii) As all aeromedical assessments are based on medical opinion, which to some degree is subjective and at times, may not be precise or even correct, hence the final decision in form of aeromedical disposition should lean towards flight safety. If error cannot be completely avoided it is important to err in favour of flight safety, even if this may sometimes seem (and perhaps also be) unjust to the aircrew.
- (iv) It is important that the aeromedical examination is performed in a way that encourages the aircrew to discuss freely and openly whatever problems, medical or otherwise he/she may have, but the situation is not ideal for developing the usual doctor patient relationship between Medical Examiner and an aircrew.
- (e) In order to ensure an aeromedical examination of optimal quality by the Medical Examiner, the following important factors are taken into account-
 - (i) Professional competence. As highly trained technical professionals all airmen appreciate professionalism amongst one another.
 - (ii) Thoroughness. The aircrew himself may be unaware of the significance of minor signs and symptoms. It is of vital importance to review all systems at each medical examination and the aircrew statement of 'unchanged since last medical examination' should only be the start rather than the end of any history. Often the aircrew will not be aware of anything that has gone wrong or may not appreciate that his minor symptoms may turn out to be significant. In this latter situation only a very careful and thorough medical examination will reveal the problem. An unknown intestinal cancer may be suspected from declining hemoglobin, still within normal range, and early diagnosis and intervention will most certainly improve the prognosis. Decreased visual acuity, reduced hearing, reflex anomalies, changes in blood picture or ECG are all signs and symptoms that may go unnoticed by the aircrew himself but which can be the first indication of serious underlying pathology. Further, there must be ample time to discuss the aircrew employment (if professional air crew), or flying interest as information thus obtained is frequently as

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productive as the physical examination itself. During the health examination, care should be taken so that minor progressive change can be noted at the earliest stages, often before symptoms become evident.

(iii) Openness. Any abnormality detected should be discussed, even if it is not apparently affecting certification, so that the aircrew realizes that the Medical Examiner primarily remains a physician throughout. Any such findings should be passed to the aircrew family doctor for investigation and necessary evaluation.

(iv) Aviation knowledge. Every effort should be made to appoint physician with an aviation interest as the amount of time spent in aeromedical work is often disproportionate to other clinical activities. Sharing the aircrew interest in flying is the most direct way to establish a relationship and yet another reason why time spent on the flight deck and in the flying club is an essential experience for the Medical Examiner.

(f) Although a good relationship between aircrew and Medical Examiner is essential, it can occasionally invite difficult situation from Medical Examiner viz. as a physician, he is required to maintain medical confidentiality and as a Medical Examiner, he is also required to communicate all information regarding the aircrew physical and mental fitness for flying, to the concerned authorities. Despite all conflicting interests the Medical Examiner must remember that-

(i) He is appointed by the DGCA to verify that the aircrew examined by him meets the standards of medical fitness as required for the issuance or renewal of a medical certificate, and

(ii) The aircrew consulting him knows that in his role as a Medical Examiner he is acting as the DGCA approved Medical Examiner. The Medical Examiner therefore cannot assess an aircrew fit outside the requirements, nor can he withhold pertinent information from the Authority. At all times the Medical Examiner must protect his professional integrity and remain aware of his responsibility towards flight safety.

(g) The initial issue medical examination is done on a special form designated as CA-34 (Annexure 'A') and all renewal medical examination are conducted on form CA-34A (Annexure 'B'). The outcome of the medical examination is communicated to the aircrew on form CA-35 (Annexure 'C') which is a provisional medical assessment only. Based on the recommendations of Medical Examiner, DGCA then issues a medical assessment. The medical assessment is required to be carried along with the license and it shows the current medical validity of the license holder. All medical documents are maintained at the DGCA in folders referred to as Aircrew Medical Records (PMRs).

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(h) When an aircrew is declared temporarily or permanently unfit for issue of renewal or license, the reason of unfitness shall be clearly endorsed on the CA 34/34A and CA 35. One copy of the CA 35 shall be handed over to the individual and his/her signature obtained as a proof of having received the medical disposal certificate.

(j) Class 2 Medical Examiner must record details of medical examinations of the aircrew meticulously on the relevant forms CA 34/34A. Details of disease/disability detected must be endorsed on the forms at appropriate columns on the forms. Opinion of concerned specialists should be attached to the medical examination forms. All investigation reports as required for initial and renewal medical examinations must be enclosed with the forms before submitting the same to DMS (CA) at Medical Directorate, DGCA for approval.

(k) In case of any doubt, regarding fitness of a particular aircrew, no certificate of fitness may be issued to the individual and aircrew may be informed that the office of DMS (CA) at DGCA would communicate the final decision.

(l) Prior to dispatch of the medical examination forms to DGCA, Medical Examiner must carefully check the forms for accuracy and completion. A checklist for initial medical examinations for award of SPL/PPL on form CA 34 is as follows-

(i) Ensure completion of Part I of the form by the applicant in your presence and countersign the same. Specially look for history of Epilepsy, Diabetes Mellitus and heart disease and evaluate accordingly. \

(ii) Sign and stamp a recent photograph of the applicant in the space provided.

(iii) Ensure meticulous completion of all columns in Part II of the form after medical examination. Individual specialist opinions for Ophthalmology and ENT, if obtained, must be signed by the concerned specialist.

(iv) Attach the following essential investigation reports-

(aa) Blood Hb, TLC, DLC

(ab) Urine RE/ME

(ac) Resting ECG tracing with opinion

(ad) Pure Tone Audiometry

(ae) X Ray Chest (PA View) with film and opinion of Radiologist

(af) Any other medical investigation conducted

(m) Before dispatching the medical records to DGCA please ensure that-

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- (i) All the relevant papers are placed in a sealed cover
- (ii) To be dispatched by registered post/speed post/ Courier only. Only the receipt is to be handed over to the candidate
- (iii) Preserve a photocopy/soft copy of the medical examination documents.
- (n) Class 2 Medical Examiners must advise the aircrew about any borderline disabilities that they detect and which may preclude fitness during a Class 1 medical examination at a later date. Young individuals, who want to take up a career in aviation as an aircrew should not assume that by meeting Class 2 medical examination standards, they will automatically be declared medically fit for Commercial Aircrew License (Class 1).
- (o) The Indian Medical Standards have been defined by CAR Section 7 on Flight Crew Licensing Series C, Part-I. The Indian Medical Standards as referred to in the CAR, rely on the provisions laid down in ICAO Annexure 1. Details of aeromedical disposal of aircrew with disease/disability are laid down in AIC's issued by DGCA from time to time.

3.2 **Conduct of Class 1 Medical Examination**

The following steps will be followed by the Class 1 Medical Examiners for conducting Class 1 renewal medical:

- (a) Accordinging of appointment. Based on the contact details of the Medical Examiner on the DGCA website, prospective aircrew shall contact the examiner by phone/e-mail. The Medical Examiner shall grant an appointment after verifying that the medical is not due at IAF Boarding Centre either by virtue of the periodicity or by specific annotation on CA-35/Medical Assessment issued by DGCA. Renewal medical examination of aircrew with Foreign Aircrew Temporary Authority (FATA) can also be conducted by the Class 1 Medical Examiner.
- (b) PMR from DGCA. The PMR shall not be dispatched for medicals done by Class 1 Medical Examiners. The aircrew must carry a copy of the last medical assessment issued by DGCA.
- (c) Documentation. The filling up of Form CA-34/34A/ 35 by the aircrew shall be in presence of the Class 1 Medical Examiner with a specific reference to history and consequences of withholding relevant information. The identity of the flight crew must be positively established at all points including during conduct of investigations.
- (d) Fee. The Class 1 Medical Examiner may collect reasonable charges for specialist consultation(s), administrative and postage/handling charges.

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(e) Investigations. The mandatory investigations required for renewal of medical are already specified in the vide Flight Crew Licensing Circular (FCL) 01 of 2017 titled 'General Instructions for Conduct of Class 1 Medical Examination' available on DGCA website. Additional tests may be requested based on findings at clinical examination. Laboratory investigations are to be done at any NABL/NABH accredited laboratory/Institution and at DGCA approved Air Force Class 1 Centre's. The laboratory/centre will always establish the identity of the aircrew and endorse the same. The Class 1 Medical Examiner shall give a request for investigation to the aircrew. The aircrew would get the investigations done at the laboratory/centre after paying fee for the same to the laboratory/centre. The reports would be put up to Class 1 Medical Examiner during conduct of medical examination.

(f) Eye & ENT check. The Class 1 Medical Examiner may conduct the examinations themselves or get it done by a co-opted reputed specialist.

(g) General medical examination & filling of necessary forms CA-34/34A/ 35. This has to be by the Class 1 Medical Examiner. A copy of CA-35 is to be handed over to the aircrew.

(h) Dispatch of CA-34/34A/35 to DGCA. The completed CA-34/34A & 35 along with all investigation reports and opinions in original are to be dispatched to Director Medical Services (Civil Aviation), Directorate General of Civil Aviation, Medical Directorate, Opposite Safdarjung Airport, New Delhi-110003 and a record maintained. The envelope shall not be folded and shall be superscribed 'Class 1 Renewal report'.

(j) Records. A copy of the CA-34/34A & 35 and investigation reports shall be maintained by the Class 1 Medical Examiner in hard and/or soft copy for a period of three years.

(k) Reports and returns. A month wise summary of medicals examination conducted shall be forwarded to DMS (CA) in the format provided by Medical Directorate, DGCA on a quarterly basis.

(l) Unfit cases & and incomplete medicals. The CA-34/34A and 35 of cases who are declared unfit or where the medical is not completed are also to be forwarded to DGCA with recommendations. Cases of unfitness shall be intimated to/discussed with DMS (CA) at DGCA. Review medical examination after recommended period of unfitness shall be conducted at AFCME/IAM/MEC(E)/DGCA only.

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3.3 Conduct of Class 2 Medical Examination

The following steps will be followed by the Class 2 Medical Examiners for conduction Class 2 Initial/Renewal medical examination:

(a) Accordinging of appointment. Based on the contact details of the examiner on the DGCA website, prospective aircrew shall contact the examiner by phone/e-mail. The Medical Examiner shall grant an appointment after verifying that the medical is not due at IAF Boarding Centre by virtue of specific annotation on Medical Assessment issued by DGCA.

(b) PMR from DGCA. The PMR shall not be dispatched for medical examination conducted by Class 2 Medical Examiners. The candidate must carry a copy of the last Medical Assessment issued by DGCA.

(c) Documentation. The filling up of form CA-35/34A/35 by the candidate shall be in the presence of Class 2 Medical Examiner with a specific reference to history and consequences of withholding relevant information. The identity of the candidate must be positively established at all times including during conduct of investigations. The name and age of the candidate can be confirmed with Class X certificate which is required to be produced prior to medical examination.

(d) Fee. The Class 2 Medical Examiner may collect reasonable charges for specialist consultation(s), administrative and postage/ handling charges.

(e) Investigations. The mandatory investigations required for initial Class 2 medical examination are specified as follows-

- (i) Blood – Hb, TLC, DLC
- (ii) Urine - RE/ME
- (iii) X-Ray Chest (PA View)
- (iv) Pure Tone Audiometry (PTA)
- (v) ECG (R)

Additional test may be advised by Medical Examiner based on findings during clinical examination. Investigations will be done at any NABL/NABH accredited laboratory and at DGCA approved Air Force Medical Centre. The laboratory will always establish the identity of the candidate and endorse the same on CA-34/34A. The Class 2 Medical Examiner shall give a request for investigation to the candidate. The candidate would get the investigations done

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at the laboratory. The reports would be handed over to the Class 2 Medical Examiner which will be duly authenticated by him/her.

(f) Eye & ENT examination. The Class 2 Medical Examiner may conduct the examinations themselves or get it done by a co-opted specialist in Eye/ENT.

(g) General medical examination & filling of necessary forms CA-34/34A/35. This has to be done by the Class 2 Medical Examiner. A copy of CA-35 is to be handed over to the candidate with disposal of fitness/unfitness after conduct of medical examination.

(h) Dispatch of CA-34/34A/35 to DGCA. The completed CA-34/34A & 35 along with all investigation reports in original to Director Medical Services (Civil Aviation), Directorate General of Civil Aviation, Medical Directorate, Opposite Safdarjung Airport, New Delhi-110003 in the following order–

(i) CA form 35

(ii) CA form 34/34A

(iii) Self attested Class X Certificate as proof of name and date of birth (for Initial/Re-initial medical examination only).

(iv) All Investigations mentioned in para 3.3 (e) in the same order

(v) Any other investigations/ reports, if applicable.

(j) The documents are to be dispatched to medical Dte, DGCA by fastest means and records of the same to be maintained by Class 2 Medical Examiner. The envelope shall not be folded and shall be superscribed 'Class 2 medical examination report (Initial/Renewal)'. A copy shall also be sent electronically to DMS (CA) as and when desired by Medical Directorate, DGCA.

(k) Records. A copy of the CA-34/34A & 35 and investigation reports shall be maintained by the Class 2 Medical Examiner in hard and/or soft copy for a period of three years. Class 2 Medical Examiners must ensure confidentiality of medical documents.

(l) Reports and returns. A month wise summary of medical examination conducted shall be forwarded to DMS (CA) in the format provided by Medical Directorate, DGCA on a quarterly basis.

(m) Unfit cases & incomplete medicals. CA-34/34A and 35 of cases which are declared unfit or where the medical is not completed are also to be forwarded to DGCA with recommendations. Cases of unfitness shall be intimated to/discussed

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with DMS (CA) at DGCA. Review medical examination after a recommended period of unfitness shall be conducted at AFCME/IAM/MEC (E)/DGCA only.

3.4 Conduct of Class 3 Medical Examination

(a) The medical examination for Class 3 Licence/Rating Holders shall be carried out as per ICAO SARP, Doc 8984 and relevant DGCA procedures on the subject. An Air Traffic Controller, for a Medical Assessment, shall undergo a medical examination based on the following requirements (as per Para 6.5 of Chapter 6 of Annex 1- Personnel Licensing): -

(i) Physical and Mental Requirements

(ii) Visual and Colour Perception

(iii) Hearing Requirements

(b) Class 3 Medical Assessment shall be valid from the date of medical examination for a period, not greater than: -

(i) 04 (four) years – For age up to 40 years

(ii) 02 (two) years – For age above 40 years but up to 50 years

(iii) 01 (one) year – For age above 50 years

(However, the remainder period of validity after the licence/rating holder attains the age of 40 years or 50 years shall be reduced to half)

Initial Medical Examinations

(c) Initial Class 3 medical examination shall be carried out by DGCA empanelled Class 1 medical examiners only.

(d) According of appointment. Based on the contact details of the Class 1 medical examiner on the DGCA website, prospective ATCO shall contact the examiner by phone/e-mail. The Medical Examiner shall grant an appointment. ATSTO/ATS-in-charge(s) may also seek appointment with the nearest available DGCA empanelled Class 1 Medical Examiner.

(e) Documentation. The filling up of form CA-34/35 by the applicant shall be in the presence of Class 1 Medical Examiner with a specific reference to history and consequences of withholding relevant information. The identity of the applicant must be positively established at all times including during conduct of investigations. The name and age of the candidate can be confirmed with Class

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X certificate which is required to be produced prior to medical examination. On completion of the medical examination, the medical examiner will hand over a copy of CA 35 ('Medical Certificate') to the applicant ATCO. The medical examiner will forward the signed medical reports (completed Form CA 34 & CA 35 along with all original investigation reports and opinions), by registered post/speed-post/courier, to Medical Dte at DGCA for approval and issuance of 'Medical Assessment'

(f) Fee. The Class 1 Medical Examiner may collect reasonable charges for specialist consultation(s), administrative and postage/ handling charges.

(g) Laboratory Investigations. Applicants shall undergo medical investigations (as specified in Appendix 'A' to Annexure 'L' of the PTM of Med Dte) within a period of 30 days from the examination date.

Renewal Medical Examinations

(h) Renewal of Class 3 medical examination will be carried out by DGCA empanelled Class 3 medical examiners. List of medical examiners is available on DGCA website at

<https://www.dgca.gov.in/digigovportal/?page=jsp/dgca/inventorylist/personal/medical/class3/class%203%20medical%20examiners.pdf>

(j) Lab Investigations. All applicants for Class 3 medical examination shall undergo medical investigations for the Renewal Medical Examination (as per their age) as specified in Appendix 'A' to Annexure 'L' of the PTM of Med Dte).

(k) Documentation. Only the GoI Medical Examination Forms (CA 34/34A and CA 35) to be used by the DGCA empanelled Medical Examiners and these forms are to be filled by 'hand' only. After completion of medical examination, these forms shall be submitted by the Medical Examiner to DGCA for approval and issuance of Medical Assessment by the medical assessors at DGCA.

(l) Applicants for Class 3 renewal medical examination shall indicate to the medical examiner whether a Medical Assessment has previously been refused, revoked or suspended and, if so, the reason for such refusal, revocation or suspension. They shall submit a copy of their last medical assessment and same shall be annotated at relevant Paras of CA-34 A.

NOTE

General Instructions

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- (a) Medical Examiners should ensure that candidates holding a Class 1 Medical Assessment cannot undergo a Class 2 medical examination, unless approved by DGCA.
- (b) CA 34/34A/35 forms required by Medical Examiners and other reference material for the conduct of medical examination other than the ones prescribed in handbook are uploaded on DGCA website.
- (c) Professional disputes arising during the conduct of medical examination by Class 1 Medical Examiners shall be resolved as per DGCA policy.
- (d) The Medical Examiners are required to attend one physical workshop and two E-workshops organized by DGCA in a period of three years to update their knowledge regarding Aviation Medicine and Policies/ Guidelines of DGCA on medical matters.
- (e) DGCA may carry out audit of all Medical Examiners including record maintenance.
- (f) A Class 1 Medical Examiner empanelment may be withdrawn by DGCA temporarily or permanently depending on nature of professional misconduct/proficiency related issues. Such decisions would be vetted at DGMS (Air) and DGCA.
- (g) Class 1 Medical Examiner who join Armed Forces or any airlines, his/her name will be removed from approved panel of Class 1 Medical Examiners.
- (h) Class 1 Medical Examiners may carry out tele-consultation on administrative/ professional aspects with DMS/JDMS between 1100h and 1730h, at +91-11-24610629 at DGCA or on e-mail doctor.dgca@nic.in.

3.4 Filling of CA-34/34A

3.4.1 During conduct of the Class 1 and 2 Medical Examination (Initial or Renewal, when applicable), the DGCA approved Medical Examiner shall complete forms CA-34 & 35 (for provisional Medical Assessments) or form CA-34A & 35 for renewal medical examination.

3.4.2 Prior to the Medical Examiner completing his or her portion of the form, the candidate must fill out all relevant background information located in Part 1 of the forms and the approved Medical Examiner must complete and put his seal on all the appropriate sections witnessing the completion of a Class 1 and/or 2 medical examination.

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3.4.3 During the medical examination, the approved Class 1 and/or 2 Medical Examiner must verify the Physical and Mental state of the applicant by filling out all relevant sections with Page 4 of form CA-34/34A & 35 along with the visual requirements set forth in the form. The following procedure clarifies each sections within forms, CA-34/34A, the sections that apply to each type of examination (Class 1 or Class 2 Medical), and the types of medical examination used to make medical determinations on the form

(a) Statement of applicant. This is a legal declaration that the applicant has supplied complete and accurate information. The applicant must write date and sign the declaration and the signature must be witnessed. The applicant should be aware that it is an offence under the Indian penal Code to knowingly make a false declaration which may result in loss of license and/or criminal action.

(b) Mental Status Examination. All the three aspects of mental functioning should be tested e.g. cognitive, emotional and behavioral. It is always better to begin the question about general health followed by inquiries about the applicant work and educational records, working conditions and his/her attitude towards colleagues, family members and those in authority over him/her. Then proceed to inquire about family and personal history. In the course of examination, the medical examiner must always keep in mind the aspects of intellectual capacity, emotional stability and personality problems while assessing psychiatric fitness.

(c) Intellectual capacity can be assessed, in the course of history taking with reference to school and work records. Assessment of emotional stability requires good clinical acumen as no definitive tests are available for testing personality or temperament and reliance must be placed on careful history. Speech must be clear and stammering, slurring and hesitation in speech must be noted. The candidate may be asked to read a paragraph in English to determine speech abnormalities. Speech defects can also be detected by drawing the candidate into a sensible and purposeful conversation.

(d) General Physical Examination. The general physical examination must ensure that movement of all joints of the trunk and upper and lower limbs are full, free and painless. Any structural or congenital abnormality and loss of any part of body due to amputation is noted. Special attention is paid to the symmetry and equal development of the limbs. Note will be taken of any muscle wasting, contractures, keloids and abnormal scars. Abnormal mobility of the joints and abnormality of muscle tone will also be noted. The candidate should be asked to stand to attention and then walk. The posture and gait will also be noted. A series of movements will be carried out by the candidate to ensure free mobility of the joints. For this purpose, a set drill should be pursued as follows-

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- (i) Extend both arms forward with palm upwards, open and close the hands and move the fingers and thumbs separately in all directions. The wrist must be pronated and supinated and elbow flexed. The candidate will be asked to swing the arm around at the shoulder and finally place both hands across the head. For lower limb, the candidate should be asked to sit/squat on the floor and then get up quickly. He then stands first on the couch and adduction and abduction at the hip is tested. Spinal movements must be full, free and painless. Any deformity or loss of curvature, with or without limitations of movements, must be noted carefully.
- (ii) This section should be completed by the Medical Examiner, although some portions, such as the height, weight and blood pressure may be completed by trusted para-medical staff, under Medical Examiners supervision. However, it is preferable that Medical Examiners performs the entire examination.
- (e) Identification marks. Two identification marks must be recorded so that they can serve as a means of positive identification. Size, shape, distance and relationship to a well recognizable anatomical landmark must be given. These are endorsed in the aircrew license & should be normally visible in a clothed individual.
- (f) Height & Weight. Body Mass Index (BMI) is a useful indicator of a healthy weight. BMI equals weight in kilograms divided by the height in meters.
- (i) BMI below or above the ideal BMI range may be investigated to rule out any endocrine related abnormality, chronic infections and metabolic disorders.
- (ii) Height of the applicant is rarely a hurdle in deciding on fitness, it is more of an employer's privilege. The Medical Examiner may advice to undergo cockpit trials, if felt necessary.
- (g) Blood Pressure. The blood pressure should be recorded while the applicant is sitting, using a cuff of appropriate size. If a nonstandard cuff is used this should be recorded. The diastolic blood pressure to be recorded is the disappearance of the sound. If casual BP is more than 140/90 mm Hg, repeat after 30 min interval. If it is still beyond normal range, record Basal BP. In case of elevated readings or if White Coat Hypertension is suspected, 24 hrs Ambulatory BP recording is mandatory for diagnosis. For confirmed case of hypertension, complete biochemistry/lipid profile/USG/fundoscopy/Echocardiography is necessary to rule out secondary hypertension & identify target organ damage. The significance of an elevated blood pressure should, therefore, be expressed in terms which include acknowledgement of the presence or absence of other vascular risk factors which include smoking, family history and obesity.

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(h) Visual Examination. A major proportion of the vital sensory input required for flying an aircraft is visually acquired & therefore, a healthy and focused visual apparatus is an essential requirement.

(i) Distant Vision Testing. Distant vision should be tested using a chart of Snellen letters, situated at an optical distance of 6 meters using either an eye lane or an approved vision testing instrument. The examination room should be darkened with the exception of the chart. The uncorrected vision should be tested initially in each eye separately, and then in both eyes. After the uncorrected vision is tested the corrected vision should be tested in the same manner.

(ii) Near Vision. Near vision should be tested with the 'N' charts or equivalent. Vision in each eye separately should be tested without and then with correction. Use good "over the shoulder" illumination of the card and avoid reflections and glare.

(iii) The visual standards recommended are-

Class 1

Distant Visual Acuity (with or without correction)

6/9 or better – Each eye separately

6/6 or better – Both eyes together (Binocular Visual Acuity)

Near Visual Acuity (with or without correction)

N-5 – At 30 – 50 cms

N-14 – At 100 cms

Class 2

Distant Visual Acuity (with or without correction)

6/12 or better – Each eye separately

6/9 or better – Both eyes together (Binocular Visual Acuity)

Near Visual Acuity (with or without correction)

N-5 – At 30 – 50 cms

N-14 – At 100 cms

Class 3

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Distant Visual Acuity (with or without correction)

6/9 or better – Each eye separately

6/6 or better – Both eyes together (Binocular Visual Acuity)

Near Visual Acuity (with or without correction)

N-5 – At 30 – 50 cms

N-14 – At 100 cms

(iv) This should include examination of the external eye and direct or indirect ophthalmoscopy. Particular attention should be directed to the cornea to detect contact lenses and/or the scars of surgical procedures to correct refractive errors such as PRK and LASIK. Even though there are no limits to correction lenses, high myopes should have a funduscopy done to ensure absence of retinal pathology (lattice degeneration).

(v) Individuals who have undergone surgery affecting refractive status of the eye may be considered on case to case basis. A minimum period of six months must have lapsed after the procedure and eyes must be free from any related complications, as under.

(aa) Over or under treatment of the condition may occur, requiring additional surgery, contact lens or glasses.

(ab) Problems with a decrease in contrast sensitivity, and even with 6/6 vision, objects may appear fuzzy or gray.

(ac) Corneal scarring, permanent warping of the cornea and an inability to wear contact lenses.

(ad) Flap complications.

(ae) Dryness of eyes.

(vi) Assessment of Visual Fields. Assessment by confrontation should be adequate. In case of doubt (congenital or acquired ptosis, corneal opacities, suspected glaucoma retinal pathology etc), Humphrey's Automated Perimetry may be done under supervision of an Ophthalmologist.

The function of the eyes and adnexa should be normal. No active pathological condition, acute or chronic or any sequelae of surgery or trauma of eyes or adnexa which is likely to reduce proper visual function should be present. Some examples are as follows-

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- (aa) Eyelids: Ptosis interfering with vision is a cause for unfitness.
- (ab) Conjunctiva: Progressive Pterygium.
- (ac) Cornea: Opacities affecting vision.
- (ad) Keratoconus
- (ae) Lens: lenticular opacities interfering with vision.
- (af) Pupil: Gross pupillary abnormalities e.g. mydriasis, anisocoria or irregularity.
- (ag) Glaucoma /Uveitis.
- (ah) Macular scarring, maculopathy, Retinal detachment, Retinal pigmentary dystrophy (retinitis pigmentosa) optic disc edema/ atrophy, Peripheral retinal degenerations, Vasculopathies, hemorrhage and exudates

(vii) Ocular Muscle Balance. Eyes should be well aligned and should have normal binocular vision. No manifest squint is permissible. Convergence must be adequate. Ocular movement should be full and free. Ocular muscle balance can be tested with cover test, the Maddox rod or an approved vision tester.

(viii) Cover Test. The purpose of this test is to determine whether manifest strabismus is present, or whether there is any tendency of the eyes to deviate when the two eyes are dissociated. The examiner stands in front of the candidate who is told to fix his eyes on a small target such as a small examining light. An occluder card is then placed in front of one eye and the other eye checked for movement. If there is none, the card is removed and the covered eye examined to see whether it has remained fixed or whether it has moved medially or laterally and has to be re-fixated. The test is then repeated with the other eye covered. If the candidate is orthophoric, no movement of the eyes will take place. If there is esophoria, one eye will move in and then re-fixate when the occluder is removed. In exophoria, the opposite is true.

(aa) Technique. Cover one eye completely. Hold the pencil vertically with the point 45 cm from the candidate's face, between his/her eyes and level with the root of his nose. Ask the candidate to follow its movement with the eye and move the pencil 3 or 4 times across his/her face, from side to side in a level plane. Range of movement should be approximately 30 cm. Now bring the pencil to rest level with the root of the nose and evenly between eyes, still at

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a distance of 45 cm from the face. Quickly remove the cover, and observe any movement of previously covered eye. The covered eye may not show any movement or it may move either inwards or outwards. Now the eye, which was open, is covered and the movement of the previously covered eye is once again noted. This part of the test may be termed stage 2. The previously covered eye may once again show no movement or may move either inwards or outwards.

(ab) Interpretation of the results. If there is no movement of the eyeball either in stage 1 or stage 2 of the test, it indicates that the muscle balance is normal and fusion is achieved with effort. Such a stage is called orthophoria. However, if there was no movement in stage 1 but some movement in stage 2 after covering the other eye, the individual is suffering from heterotropia's or manifest squint. If the movement is inwards or outwards in stage 2, the case is diagnosed to suffer from divergent or convergent squint respectively. If in stage 1 the eye moved inwards and there was no further movement in stage 2, the individual suffers from latent divergence with complete recovery. However, if there was further inward movement in stage 2, he/she suffers latent divergence with incomplete recovery. In the same way if the movement in stage 1 was outwards but no further movement occurred in stage 2, the candidate suffers from latent convergence deficiency with complete recovery. In case further outward movement occurred in stage 2, the individual will be deemed to be suffering from latent convergence with incomplete recovery.

(ac) Whenever the recovery is complete, whether divergent or convergent, the individual suffers from heterophoria. If the recovery was incomplete, he is considered to be suffering from heterotropia. Not only the movement but the rate of recovery is also noted. The recovery can be rapid or slow, immediate or delayed. Now the second eye is tested in similar fashion. The cover test is to be done for distant and near vision separately and mentioned accordingly.

(ix) The Maddox Rod test. This test is used to uncover latent squints (phorias). The test may be performed with a hand frame, a vision tester or a trial frame but the principle in all is the same. If a candidate is given two dissimilar targets to view at the same time, the stimulus to fusion is absent and phorias are uncovered.

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The Maddox rod is a disc of red glass in which are moulded grooves. When a distant spot of light is viewed with the disc in front of one eye, a red line will be seen by the eye covered with the lens, whilst a spot of light will be seen with the other eye. The line will be at right angles to the grooves so that when these are horizontal the line will appear vertical.

A candidate with no latent deviation will see the coloured line pass through the spot of light (orthophoria), whereas a candidate with Latent squint will see the light source to one side of the line. The Maddox rod with rotating prism is held in front of the right eye and the candidate is asked to look at a point source of light 6m (20 ft) away in a darkened room. Both eyes must be open and squinting should be avoided. The candidate is asked which side of the line the dot is seen. If it is to his/her right, esophoria is present and if to the left, exophoria. The candidate is then asked to “put the line on the light” by adjusting the rotating prism. The examiner reads off the degree of phoria from the scale on the device. The test is repeated with the disc turned to the vertical position. The light will now be seen either above or below the line and may be adjusted by the candidate in the same way. If the red line is above the light there is left hyperphoria, if below the light, right hyperphoria. The test should also be done with the spotlight at 33 cms. If the Maddox rod is placed in front of the left eye, the interpretation will change accordingly. The two test results of Maddox rod test at 6 meters and at 33 cms are recorded separately.

(x) Red Green Test. The most commonly used test is Worth’s “Four Dot Test”. It consists of an illuminated box with four apertures for coloured glasses, one red, two green and one white. The candidate at 6 meter distance wears a red glass before right eye and green before left eye, so that he/she sees the red with one eye, green with the other and white with both. If he/she sees four dots (one red, two green and one pinkish green) he/she has binocularity; if he/she sees five (two red and three green) he/she uses both the eyes but has diplopia. If he/she sees two reds or three greens, he/she using one eye only, in the first case right eye and in the second case left eye.

(xi) Convergence Tests. Convergence is the ability of two eyes to move inwards to focus properly at an object placed near the eye, mainly between the eye and a distance up to one meter. Good convergence is necessary for comfortable viewing and working at near distance; convergence insufficiency is not a rare condition and is met with frequently in people having eyestrain. Convergence is divided into two objective and subjective

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convergence. Both objective and subjective convergence can be done on Livingston Binocular Gauge.

(aa) Objective Convergence. To the binocular gauge, there is an attachment, a small stick with a pointer. The stick is painted alternately black and white. The stick is placed in the slit of the scale with the pointer running over the centimeter marks. The instrument is placed over the infra orbital margin and the candidate is asked to keep looking at the black and white stick. The stick is then moved towards his nose and the examiner watches the ocular movements of the candidate. The point where one of the two eyes stops moving inwards or suddenly shoots out is taken as the point of convergence. The pointer reading on the scale is noted and is expressed as convergence 7 cm. If the reading is very high e.g. beyond 11 to 12, test should be repeated after explaining to the individual what is required of him/her. The test can also be done by the help of a pencil and scale. The scale is placed below the nose of the candidate and the pencil tip is brought at the level of bridge of the nose. The pencil is then moved towards the nose in contact with marking on the scale and the result noted as explained earlier.

(ab) Subjective Convergence This can be done with help of Livingston Binocular Gauge only. The gauge has a box like attachment with the front portion having a cut in the form of a cross. The back wall has an ivory card with a black vertical line and the letters 'ALT' written on either side of it. The card is so placed that the line lies in the middle of the vertical arm of the cross and is seen in the center of the vertical cut when viewed binocularly. The candidate is instructed to look at the line and in form the examiner when the line shifts either to right or left. The box from the far end is then gradually moved towards the candidate's eye and he/she informs the Medical Examiner as soon as the deflection takes place. The reading is read off from the scale and is noted as SC 18 cm (Right). The Right or left denotes the dominant eye for the near. The test becomes unreliable in case of presbyopia.

(xii) Accommodation. It is the ability of the eye to bring to focus clearly an object lying between eye and a distance of one meter. A child has accommodation up to 7cm. There is a gradual decrease in the power of accommodation with age, which becomes very marked after 30 years of age. Accommodation should be measured independently in each eye. The

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Ivory card of the binocular gauge and the scale are used. The scale is kept at the infra-orbital margin and one eye is closed or covered. The card is kept at about 20 cm from the candidate on the scale. He is instructed to read letter "ALT" on the card, to keep looking at the letters and inform the examiner when the letters start blurring. The card is then gradually brought towards the eye and the point where the letters start blurring is noted. It is denoted as "Accommodation Rt Eye 14 cm, Lt Eye 14 cm". To confirm the above, the card is then moved from the nearest position to the eye to the far end with instruction to the candidate to inform the examiner when he/she can read letter "ALT"

(xiii) Colour Perception.

(aa) The Ishihara Plate Test. The Ishihara plates are used as a screening test for red/green color deficiency throughout the world & they have been shown to be efficient for that purpose. The plates do not diagnose the type or severity of color deficiency, but simply identify a subject as normal or as having red / green deficiency. Ishihara plates consist of a series of color-defined numbers embedded within different coloured dots. The plates are designed so that grouping of dots by color causes a number to emerge from the background that can be recognized correctly by people with normal colour vision, but in the absence of normal colour signals all the dots appear 'falsely of the same color'(pseudoisochromatic). Therefore, color-deficient observers either fail to see the number altogether or make mistakes in recognizing it correctly. The Ishihara plate test consists of either 24 or 38 colour plates. It is the most widely used screening test for red-green deficiency and has been shown to be the most efficient test for this purpose. A very general indication of protan and deutan defects is given in this test, but it is not, as such, a diagnostic test. The test does not screen for blue tritan defects and is unsuitable for testing acquired defects.

1 Introductory Example: Plate read correctly by those with normal or colour – deficient vision.

2-9 Transformation: A number is seen by those with normal colour vision and a different number is seen by people with red- green colour deficiency.

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10-17 Vanishing: A number is seen by those with normal colour vision but cannot be seen by people with red-green colour deficiency.

18-21 Hidden digit: A number cannot be seen by those with normal colour vision but can be seen by people with red-green colour deficiency.

22-25 Protan/deutan classification: Two numbers are presented on each plate. Protans only see the number on the left. If neither number can be seen, protan/deutan classification must be obtained with another test. If both numbers are seen and errors have been made previously, the subject is asked to compare the clarity (or Brightness) of the numbers. The subject is classified based on which numbers appear less clear.

(ab) Colour vision may be tested with any of the standard pseudoisochromatic test plate sets. Appropriate lighting must be provided for testing. If a special colour balanced light source is not used, daylight is best for screening. Fluorescent or incandescent lights may cause inaccurate readings. The type of plates (Pseudoisochromatic, Ishihara), the number of plates in the set (versus the numbers that should be used for testing) and the number of errors should be noted. Each plate should be held approximately 75 cm. in front of the individual with the plate perpendicular to the visual line. A delay of up to three seconds is allowed for the answer to each plate and it is permissible to repeat a plate if the individual has a negative response. If two responses are given, the second should be recorded. The plates should be given in a random order so they cannot be memorized. The result interpretation is as follows.

Colour Perception Normal. The numbers on all plates from number 1 to 17 and 22 to 25 should be read correctly and any number on plates 18 to 21 should not be misread as they do not have any number.

Colour Perception Defective Safe Plates 22 to 25 are read correctly (one figure may be clear than the other) and some of the plates are misread as follows:

Colour perception Defective Unsafe. The individual is unable to read even plates 2-9 and 22-25.

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Individuals who need confirmation of the colour blindness status need to undergo to Lantern test to identify signal colours, Red, Green & White colour light.

Plate No.	Actual No.	Read As
2	8	3
3	6	5
4	29	70
5	57	35
6	5	2
7	3	5
8	15	70
9	74	21
18	No number	5
19	No number	2
20	No number	45
21	No number	73

(ac) Martin Lantern test. This test is very sensitive and when properly carried out it detects anomalous trichromates who are likely to pass even on Ishihara, at times. Mostly, such cases appear normal and are rarely aware of their deficiency, the defect becoming manifest under unfavourable conditions. In this test, the room should be completely darkened. It is not necessary to dark adapt the individual at this stage, but should it become apparent in the preliminary stages that there is a defect of colour perception; the individual is to be dark adapted for 15 minutes. The candidate should wear glasses if his/her "form or basic vision" is defective. Care should be taken that the correcting glasses are not coloured because red coloured glasses are known to give a decided advantage to the individual in the test. Using the large aperture, a single white light will be shown to the candidate who will be asked to name the colour. If the reply is correct, the examiner need not speak to the candidate throughout the remainder of the examination. Should the candidate's answer be incorrect, he/she will be told that the light is white (or clear). Thereafter the examiner need not speak to the candidate until the test is completed. The candidate will be seated at a distance of 1.5 meters from the Martin Lantern and will be asked to name colours, presented singly with the large aperture, to satisfy the examiner that he can recognize

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correctly without guessing signal red, signal green and white. A candidate who passes the test will be assessed Colour Perception Defective Safe and, if he/she fails, Colour Perception Defective Unsafe

(xiv) Ophthalmoscopic Examination is carried out to exclude any abnormality in the fundii and media. Examination must be carried out in a systematic manner starting from the cornea, anterior chamber, pupil, iris, lens, posterior chamber and retina. Note will be taken of reaction of the pupil to the light, abnormality of the pupillary edge, any evidence of inflammation of the iris and lenticular opacity. Vitreous floaters are usually of no significance. Any abnormal vascular pattern, macular scarring, hemorrhages or exudates in the fundi will be noted. The vascular pattern in the disc and its edges, AV ratio, papillary edema or colour change in and around the disc and pigmentary changes elsewhere provide valuable clues to various systemic diseases and must be carefully noted.

(j) Ear, Nose & throat. The examination should be directed to the presence of any condition which would impair respiratory functions or pressure equalization during flight. Ear drums should be examined for any pathology, perforation and for the adequacy of pressure equalization. Pressure equalization should be assessed by observation of the drum during a Valsalva maneuver. Vestibular function should be normal. Auricle and mastoid region should be carefully examined for scars and deformities due to past operations.

(i) External Auditory Meatus is inspected by pulling the auricle upwards, backwards and outwards to straighten the external canal. Presence of wax, foreign body, exostosis or discharge is noted. Wax is removed by a blunt hook probe or syringing. While syringing, the stream of water is directed against the posterior-superior wall of the meatus and not against the wax, foreign body or the drum. Syringing is contraindicated in the presence of perforation of tympanic membrane due to danger of activating middle ear infection and primary infection of canal itself. Syringing should be done carefully if thinned out/scarred tympanic membrane is suspected by candidate's history or if tympanic membrane is not visible.

(ii) Tympanic Membrane must be inspected quadrant-wise. Carefully look for scars, tympano-sclerotic plaques or retraction of membrane as well evidence of tympanoplasty. Eustachian tube patency is of paramount importance for the candidate's ability to ventilate the middle ear voluntarily for adjustment of pressure variations during flight through ascent or descent. To test the patency of the tube, Toynbee, Frenzel's or Valsalva method is recommended.

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Toynbee's maneuver involves closing the mouth and nose while swallowing, where inward movement of the eardrums must be evident. Frenzel's maneuver is preferred to Valsalva since pressure required to open the tubes is 6 mm Hg as against 33 mm Hg in the latter. Moreover it does not carry the risk of syncope due to raised intra-thoracic and central venous pressure and venous pooling that can happen during a prolonged Valsalva maneuver. Frenzel's maneuver is carried out by voluntarily closing the glottis, mouth and nose and increasing nasopharyngeal pressure by contracting the muscles of the floor of the mouth and superior constrictors of the pharynx. The advantage of Frenzel's maneuver is that it can be performed during any phase of respiration and is independent of intra-thoracic pressure. Outward bulging movement of the ear-drum can be seen clearly through the otoscope. In doubtful cases of eustachian tube function, impedance audiometry should be carried out.

(iii) Tuning Fork Test. This should be employed to ascertain the type of hearing loss present.

(aa) Rinne's Test. This test compares the duration of bone conduction of sound with that of air conduction. A 512 Hz tuning fork is charged and the stem is placed firmly against the Individual's mastoid bone. When the sound is no longer heard, the vibrating tuning fork is shifted to a position, which places its prongs at a distance of about 1 cm from the external auditory meatus. Normally the fork is heard twice as long by air conduction (AC) than by bone conduction (BC) (Negative Rinne's). If both AC and BC are relatively diminished it indicates perceptive type of hearing loss. When BC is longer than AC it indicates conductive hearing loss.

(ab) Weber's test. In performing this test, a charged 512 Hz tuning fork is placed on the vertex of the skull or forehead. The sound originating in the vibrating fork is conducted by bone to both ears. A normal individual hears the sound equally in both the ears. If the sound is lateralized and better heard in the affected ear it points to conductive deafness of that ear. If it is heard better on the normal side, it points to perceptive deafness in the affected ear. In considerable bilateral perceptive deafness, the sound may not be heard at all. In bilateral conductive deafness it will be heard clearly in both the ears or in the ear with better cochlear function.

(ac) Absolute Bone Conduction Test (ABC). This test is done as above except that the meatus is occluded to exclude any ambient

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noise. In this way, prolonged bone conduction is rarely noted but shortening of bone conduction is regarded as a sign of impaired cochlear function. It offers better and accurate assessment of cochlear function.

(iv) Hearing Acuity. Each ear must be tested separately. It is necessary to standardize the technique to make findings reproducible and comparable. The candidates stand in a quiet anechoic room at a distance of 600 cm from the examiner with his/her back turned towards the latter. This prevents lip reading. An assistant will mask the ear not being tested. Masking is done by placing a stiff 4"x 4" piece of paper over the auricle and using the pulp of finger tips to make a gentle circular rubbing motion producing a continuous rustling sound or using Barany's noise box. The examiner should whisper with the residual air, at the end of an ordinary expiration. The candidate is asked to repeat the words, phrases and numbers spoken by the examiner. The distance at which the candidate clearly hears conversational and whispered voice by each ear is recorded as CV and FW.

(aa) Voice Test (Free Field Hearing /FFH). For Conversational voice (CV), sound level should be 60 dB at 1 meter. For Forced whisper (FW) it should be 45 dB at 12 meters.

(ab) Pure Tone Audiometry (PTA) Candidate for class 1, 2 or 3 medical certification will require a pure tone audiogram at the initial examination. It should be done in a quiet room with intensity of background noise < 35 dB. PTA with reference zero for calibration of audiometer is as per ISO. There shall be no hearing loss in either ear, when tested separately of more than 35dB at any of the frequencies 500, 1000 and 2000 Hz or of more than 50 dB at 3000 Hz.

(ac) Requirement of PTA. Class 1, 2 and 3 licence/rating holders have to undergo a PTA at frequencies listed in the relevant FCL and PTM of Med Dte. An applicant with hearing loss greater than the prescribed limits may be declared fit provided he has normal hearing performance against a background noise that reproduced or stimulates the masking properties of flight deck noise upon speech and beacon signals. The minimum qualifying limit for the Speech Discrimination Score (SDS) is 50%.

(ad) In addition, the following pathological conditions need to be excluded-

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(i) There shall be no acute/chronic/active pathological process of middle/inner ear viz. congestion, retraction or perforation of the tympanic membrane, eustachian tube dysfunction, otosclerosis etc.

(ii) No permanent disturbances of vestibular apparatus e.g. Labyrinthitis, acoustic neuroma, Meniere's disease etc.

(iii) No serious malformation or serious, acute/ chronic affection of upper aero-digestive tract like cleft palate, adenoids, nasal polyps or deviated nasal septum causing nasal obstruction etc.

(iv) Stuttering/other speech defects sufficiently severe to cause impairment of speech communications shall be assessed as being unfit.

(v) Pure Tone Audiometry. An audiometry provides accurate measurement of both air and bone conduction thresholds. In air conduction, the test tone travels along the normal route i.e. reaches ear as an air conduction wave transmitted from middle ear to cochlea to auditory nerve and higher auditory pathways. In bone conduction, the test tone applied to mastoid process of temporal bone goes directly to cochlea bypassing the external and middle ears, which depicts only the acuity of sensori-neural elements of hearing mechanism and is relatively unaffected by changes in the outer and middle ears. Limitation of bone conduction is that threshold beyond 80 dB are not measurable.

(aa) Procedure for Pure Tone Audiometry. Requirements for audiometry are a reasonably noiseless test environment (an acoustically treated chamber with ambient noise 25-30 dB and well positioned headphones exactly over the opening of external auditory meatus. The test must be thoroughly explained to the subject and it must be made clear to him that this test being a subjective test, his co-operation is of utmost importance.

(vi) Technique of Air Conduction tests. The better ear is tested first. The test is started with a 1000 Hz sound and then the other frequencies are tested in the following order 2000-4000-8000-1000 repeated -500-250 Hz. In each frequency, the threshold is ascertained as follows-

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(aa) The examiner first introduces the sound at an arbitrarily presumed supra-threshold level. If the subject hears the tone, then the tone is reduced in steps of 10 dB till the subject stops hearing. Once this stage is reached, the tone is raised by 5 dB till the subject hears it again.

(ab) This is the threshold at this particular frequency. In case of doubt/suspected malingering, it is re-tested and the results compared for consistency.

(vii) Tympanometry. It is a non-invasive procedure, which measures the impedance matching system of the middle ear. External auditory canal is examined for wax, debris and tympanic membrane for any scar or disease. External auditory canal is sealed with adequately fitted probe and readings are taken in the form of tympanogram. It shows various types of graphs, as under.

(aa) Type A: it is further sub divided into

- Type Ad: Peak is open e.g. ossicular dissociation.
- Type As: Peak is low flat e.g. otosclerosis.

(ab) Type B: Peak is flat e.g. otitis media with effusion.

(ac) Type C: Graph shows a negative pressure in the middle ear e.g. Eustachian tube dysfunction/impairment.

(viii) Speech Intelligibility Test. The aim of the test is to ascertain whether an individual has a hearing performance (in each ear separately) equivalent to that of a normal person against background noise. This will represent the masking properties of flight deck noise or ATC Unit upon speech and beacon signals. Noise levels in the cockpit are normally 70 dB and rarely exceed 80 dB. During this test, which is performed in a soundproof room, a list of 20 phonetically balanced words is used with speech at 80 or 90 dB against a background noise of 70 dB or 80 dB respectively. Aviation types of message or digits are not used. Intelligibility reduces when the level of both speech and noise are raised. A score of 50% and above is considered satisfactory. This test is valid for trained aircrews or ATCOs only, whose experience helps them overcome a disability.

3.4.4 Once the Medical Examiner completes the Class 1, 2 or 3 medical examination all completed forms along with the Medical Examiner's recommendation shall be sent to the Medical Dte at the DGCA via post for the final approval with seal of the Medical

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Assessors. A medical examination is not considered valid until the Class 1, 2 or 3 medical examination conducted by a DGCA empanelled Medical Examiner is approved by Medical Assessor of DGCA Medical Directorate.

4. CLASS 1 MEDICAL EXAMINATION AT DGCA EMPANELLED AIR FORCE MEDICAL EXAMINATION CENTRES

- (a) Individual/aircrew shall obtain Class 1 medical appointment through centralized appointment procedure available on DGCA website.
- (b) The PMR File as per the request received from individual shall be forwarded to one of the IAF Boarding Centres only.
- (c) The medical examination centre is to ensure that the individual is in possession of a valid medical assessment issued by DGCA. If the medical validity period has lapsed, then the individual should be in possession of last Medical Assessment along with NOC for Delayed/Re-Initial medical examination, issued by DGCA prior to conduct of medical examination at Air Force Boarding Centre.
- (d) After conduct of medical examination, the PMR of aircrew from either of the three Boarding Center and CA 34/34A/35 from other Air Force medical examination centre should be dispatched to DGCA by post/parcel/speed post within a weeks' time.

5. WORKSHOP FOR DGCA EMPANELLED MEDICAL EXAMINERS

ICAO Annex 1, states that Medical examiner is “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 license’s or ratings for which medical requirements are prescribed”. In order to ensure that the Medical Examiners empanelled by DGCA are trained in tackling aviation related medical/surgical conditions, workshops in form of either E-workshop or Physical workshop are scheduled regularly by Medical Directorate, DGCA.

5.1 **E-Workshop**. The details for conduct of e-workshop are as under-

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- (a) E-workshop will be conducted electronically by on line medical update/information from DGCA. This will be followed by assessment test.
- (b) The medical examiners shall be sent intimation along with PowerPoint presentation on topics of Eye, ENT, Medicine, Surgery & allied speciality through e-mail, prior to the conduct of workshop.
- (c) A question paper with multiple choice questions will be prepared and sent to Medical Examiners on the day of workshop at a fixed time.
- (d) The Medical Examiner shall attempt all the questions and will send the answers back within a stipulated time.
- (e) The answer sheets will be corrected at medical Directorate.
- (f) A brief about the workshop along with performance assessment of Medical Examiners will be put up to DGMS (Air) Air HQ (RKP) for approval.
- (g) Once approval is obtained from DGMS (Air), the same will be put up to DG(CA).
- (h) A certificate of participation shall be issued to each successful participant.
- (j) Each Medical Examiner should obtain a score of 50 %. Those unable to achieve 50%, will have to reappear in the on line test within two weeks' time.
- (k) The Medical Examiner should attend atleast two e-workshop during their empanelment period. This is considered a mandatory requirement for re-empanelment.

5.2 **Physical Workshop.** The details for conduct of physical workshop are as under-

- (a) The physical workshop for Medical Examiner shall be conducted once a year at either of the following centres-
 - (i) IAM, Bangalore
 - (ii) AFCME, New Delhi
 - (iii) DGCA, New Delhi
- (b) Every Medical Examiner should attend atleast one physical workshop during the period of his/her empanelment. This is considered a mandatory requirement for re-empanelment.

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- (c) The conduct of physical workshop as follows-
- (i) An intimation to all Medical Examiners will be sent by email about the date and place for conduct of the workshop atleast four weeks prior to the scheduled date.
 - (ii) During workshop, power point presentation on Eye, ENT, Medicine, Surgery and allied speciality shall be presented by concerned specialist. Issues related to administrative requirements for conduct of medical examination and update on policies etc of medical Directorate, DGCA will also be covered in details by DMS/JDMS.
 - (iii) A visit to all concerned departments shall be conducted on the day of workshop.
 - (iv) After successful participation, the Medical Examiners shall be presented with a certificate of participation.

6. ENFORCEMENT POLICY

- (a) The Medical Directorate enforcement policy plays a vital role in the discharge of its responsibility for safety oversight of the operators functioning under its jurisdiction and promotes the goal of improved aviation safety by encouraging voluntary compliance with the provisions of the Aircraft Act, the Aircraft Rules and the directions issued under these statutes. It encompasses that DGCA may initiate investigation of alleged violations of these legislations / directions, as and when necessary.
- (b) For implementation of safety management system, DGCA shall have an equitable and discretionary enforcement approach in order to support SSP-SMS framework. On behalf of DGCA, Medical Assessors of DGCA may also conduct surprise/random checks of Class 1 & 2 medical examination facility, as and when felt necessary.
- (c) The procedure of enforcement action to be taken in respect of DGCA Empanelled Medical Examiners/Examination Centres by DGCA is laid down in subsequent paragraphs. Such actions are taken by Medical Directorate, DGCA under following circumstances:-

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- (i) Whenever the DGCA Medical Examiner/Examination Centre does not follow proper procedures during conduct of medical examination as per the laid down guidelines.
 - (ii) Any professional misconduct or proficiency related issue.
 - (iii) Whenever a DGCA Medical Assessor observes any deficiencies with respect to record-keeping methods of a Medical Examiner/Examination Centre during an inspection.
 - (iv) Whenever discrepancies from unannounced audits are not addressed within a reasonable period of time as determined by the DGCA Medical Directorate.
- (d) The procedure to be followed is as under-
- (i) If there is any discrepancy observed in form (CA-34/34A/35) on which medical examination is conducted by DGCA Empanelled Medical Examiners, the Medical Examiners will be notified through letter.
 - (ii) If any Medical Examiner inspite of observation raised against him/her is not taking corrective action, then he/she may be issued with caution letter by DMS (CA).
 - (iii) In case the compliance to instructions is still wanting or unsatisfactory inspite of issue of caution letter or if there is any lapse of a serious nature that may affect flight safety or any other disciplinary issue, then he/she shall be served with Show Cause notice by DGCA, seeking explanation for such lapse.
 - (iv) An administrative action, as deemed appropriate, will be taken by Director General Civil Aviation in exercise of the powers under rule 19 of Aircraft Rule 1937.

7. MAINTENANCE OF MEDICAL RECORDS

- (a) Medical Examiner/Examination Centre shall raise two copies of CA form 34/34A at the time of medical examination.

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- (b) One duplicate copy along with all medical investigations and reports shall be preserved at the examination facility/centre at all the times either in physical form or in form of a scanned copy.
- (c) Original copy along with investigation reports are to be sent by speed post /registered post to medical Directorate, DGCA.
- (d) No copy of CA form 34/34A shall be handed over to the individual/aircrew/ airline representatives. Confidentiality shall be maintained at all times by Medical Examiner/Examination Centre.
- (e) The Medical Examiner/Examination Centre shall always maintain records at the concerned centres/facility.
- (f) If in case any of the document is not found attached or missing or are untraceable, DGCA shall request Medical Examiner/Examination Centre to provide the scanned copy from concerned centre.
- (g) Medical Examiner/Examination Centre shall provide monthly data to Medical Directorate, DGCA by e-mail on a quarterly basis. Nil reports shall also be forwarded.

8. PROCEDURE FOR CHANGE OF PARTICULARS

(Address/Telephone Number/e-mail)

- (a) DGCA website provides the details of Medical Examiners/Examination Centres. These are uploaded on the website for use by the individuals who wish to undergo Class 1 and 2 medical examination to pursue the flying career.
- (b) Hence, Medical Examiner/Examination Centre are responsible for any change in the address/name/telephone number etc.
- (c) If any Medical Examiner/Examination Centre need to update the details on DGCA website, then the following procedure should be followed:
 - (i) Medical Examiner/Examination Centre shall send a written application in to DMS (CA) along with justified reasons for change of facility and current details w.r.t. address/telephone etc.
 - (ii) No Medical Examiner shall operate from two medical facilities.
 - (iii) Upon receipt of request, DMS (CA) shall put the same to DG(CA)

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- (iv) Upon approval by concerned authorities, inspection of medical facility will be carried out as per guidelines mentioned in CAR Section 7 Series C Part III on 'Empanelment of Medical Examiners for conduct of Class 1 Medical Examination' dated 23 June 2017.
- (v) After receipt of report of inspection of facility, it will be put up again to DGMS (Air) for perusal.
- (vi) On recommendations of DGMS (Air), it will be put up to DG(CA) for approval and uploading on DGCA website.

9. ASSESSMENT OF MENTAL HEALTH

- (a) Flying an aircraft requires the utilization of a complex set of psychomotor and cognitive skills. Interference with any aspect of these skills and their coordination may have serious personal and public safety consequences. The assessment of mental fitness shall, therefore, be made with due regard to the privileges of the licence and the ratings applied for or held, and to the conditions in which the licence holder will have to carry out their duties.
- (b) The Standards and Recommended Practices of ICAO Annex 1, Chapter 6, while not sufficiently detailed to cover all individual conditions, require specific levels of mental fitness. Many decisions relating to individual cases will be left to the discretion of the medical examiner or will have to be decided by the Medical Assessors at DGCA.
- (c) The contents of this chapter will provide guidance for making these decisions. The requirements on mental fitness, applicable to all categories of licences and ratings, are as follows:
- (d) The applicant shall have no established medical history or clinical diagnosis of: -
 - (i) An organic mental disorder
 - (ii) A mental or behavioural disorder due to use of psychoactive substances; this includes dependence syndrome induced by alcohol or other psychoactive substances
 - (iii) Schizophrenia or a schizotypal or delusional disorder

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- (iv) A mood (affective) disorder
 - (v) A neurotic, stress-related or somatoform disorder
 - (vi) A behavioural syndrome associated with physiological disturbances or physical factors
 - (vii) A disorder of adult personality or behaviour, particularly if manifested by repeated overt acts.
 - (viii) Mental retardation
 - (ix) A disorder of psychological development
 - (x) A behavioural or emotional disorder, with onset in childhood or adolescence
 - (xi) A mental disorder not otherwise specified; such as might render the applicant unable to safely exercise the privileges of the licence applied for or held.
- (e) Any mental condition which the applicant experiences or has experienced in the past must be recorded in medical application on eGCA or CA form 34/34A and assessed to ascertain the associated functional deficit. The medical examiner must also consider the risk of recurrence of any disabling psychiatric condition. Furthermore, many psychiatric conditions exist co-morbidly with other psychiatric conditions and particularly with abuse or misuse of psychoactive substances. The medical examiner must also be aware that, although the psychiatric condition may have responded well to treatment, the demands of the aviation environment are such that virtually any decrement in cognitive ability may have significant consequences.
- (f) Psychiatric conditions can cause the licence holder to become incapacitated while on duty, which may be obvious or subtle, and the task of the medical examiner is to detect this or the likelihood thereof on the basis of the mental status examination.
- (g) In many cases, a psychiatric illness of adulthood has a harbinger of this illness in childhood and may be preceded by dissocial behaviour, poor academic achievement, and difficulty in finding regular employment, use of addictive substances, anxieties, mood disorders and attachment failures. A history of any of these should lead the medical examiner to attempt to gather further information from family.

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(h) Common Psychiatric Disorders and their aeromedical evaluation:-

(i) **Mood Disorders**

(aa) **Depressive Mood Disorders**. These are common disorders which present with depressed mood, reduced energy, impaired concentration and memory, loss of interest in surroundings, difficulty in making decisions, alteration of appetite and sleep, guilt feelings and low self-esteem. Depression leads to subtle (and sometimes obvious) incapacitation, mainly due to the decreased ability to concentrate as well as to distractibility and indecision, which are frequent features of the illness. It is these symptoms, along with the risk of suicide, which make a depressed individual UNFIT to work in the aviation environment. An applicant with depression, being treated with antidepressant medication, should be assessed as UNFIT, unless the Boarding Centre, having access to the details of the case concerned, after thorough psychiatric and psychological evaluation considers the applicant's condition as unlikely to interfere with the safe exercise of the applicant's licence and rating privileges.

(ab) **Mania**. Mania is an unpredictably recurring disorder, which presents with grandiosity, increased energy, euphoria, reduced sleep, distractibility and poor judgment. It may progress to overt delusions with marked irritability, anger and danger to self and to others. Although this condition may respond moderately well to mood stabilizing agents, the risk of recurrence is significant and the degree of disruption of performance too great to allow a return to flying or air traffic control duties.

(ii) **Schizophrenia and Delusional Disorders**

(aa) These illnesses are disorders of thinking and perception. The perceptual disturbances most commonly take the form of auditory hallucinations, but may also involve visual or somatic hallucinations. The presence of delusions, often persecutory, along with the hallucinations may be quite pervasive in the life of the sufferer, who may become perplexed and experience marked disturbance of affect, drive, interest, memory and concentration.

(ab) Because of their recurring nature and because of the pervasiveness of the disruptions, these conditions are disqualifying for all Classes of medical certification.

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(iii) **Neurotic, Stress-Related, and Somatoform Disorders** (Anxiety Disorders, Somatoform Disorders, Dissociative Disorders, Adjustment Disorders)

(aa) **Anxiety**. Any mental disorder with anxiety is disqualifying until the person has been asymptomatic without the use of psychotropic medicines for a period of at least six months. Since many of these disorders are of a chronic nature, an aviation career should be discouraged for the initial applicants.

(ab) **Adjustment Disorders**. Persons who have experienced psychiatric symptoms in response to external stressors should be assessed temporarily unfit but may be reassessed after a period of stability without use of psychotropic medication for a period of at least six months. Persons who undergo lengthy periods of stress frequently use alcohol and/or other psychoactive substances as a modifying agent. The medical examiner should always inquire about such use.

(iv) **Disorders of Personality and Behaviour** (Personality Disorders, Impulse Control Disorders)

(aa) Personality disorders are deeply ingrained maladaptive patterns of behaviour which are present during the entire adult life of a person. These behavioural patterns may cause the person surprisingly little discomfort but are usually a source of distress to others. Because of the maladaptive quality of these personalities, they rarely fit well into society. They either marginalize themselves or are in various forms of conflict with their environment.

(ab) Persons with impulse control disorders are particularly unsuitable for careers in aviation. The inability to control an impulse when the adverse consequences are obvious is a major concern in someone accepting the responsibilities of a safety-sensitive function within aviation.

(v) **Organic Mental Disorders**

(aa) The most common result of an organic insult to the brain is delirium or dementia, but anxiety, depression and behavioural changes may also have organic causes. An organic insult to the brain may result in reduced functioning, and once the insult is

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removed, there may still be concern about the continued optimal functioning of the brain.

(ab) Neuropsychological testing, basic biochemistry, EEG, CT scan and the Mini-Mental Status Examination need to be carried out before deciding on the assessment of fitness.

(vi) **Sleep Disorders**

(aa) Persistent insomnia requires a complete history and thorough physical examination as the presence of organic causes must be ruled out (e.g. chronic pain, narcolepsy, sleep apnoea, episodic movement disorders).

(ab) The sleep disorder may consist of initial insomnia, interrupted sleep and early awakening. Insomnia may exist without the presence of an underlying psychiatric disorder or substance abuse.

(ac) Polysomnographic studies will usually show increased stage 1 sleep and decreased stages 3 and 4 sleep. Because of the decreased ability to function, persons with persistent insomnia pose a particular risk in the aviation environment.

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References

1. ICAO Annex 1 Personnel Licensing.
2. ICAO Manual of Civil Aviation Medicine – 2012 (Document 8984).
3. Aeronautical Information Circulars on medical matters available on DGCA website under <https://www.dgca.gov.in/digigov-portal/?dynamicPage=aeronauticalInformationCirculars/119/0/viewDynamicRulesReq>.
4. Civil Aviation Requirements Section 7 Series C, Part-I (Issue II) on 'Medical Requirements and Examination for Flight Crew Licenses and Ratings' available on DGCA website under <https://www.dgca.gov.in/digigov-portal/?dynamicPage=civilAviationRequirements/6/0/viewDynamicRulesReq>
5. Civil Aviation Requirements Section 7 Series C, Part-III (Issue I) on 'Empanelment of Medical Examiners for conduct of Class 1 Medical Examination' dated 23 June 2017 available on DGCA website under <https://www.dgca.gov.in/digigov-portal/?dynamicPage=civilAviationRequirements/6/0/viewDynamicRulesReq>
5. Civil Aviation Requirements Section 7 Series C, Part-IV on 'Empanelment of Medical Examiners for conduct of Class 2 Medical Examination' dated 25 Jan 19 available on DGCA website under <https://www.dgca.gov.in/digigov-portal/?dynamicPage=civilAviationRequirements/6/0/viewDynamicRulesReq>
5. Civil Aviation Requirements Section 7 Series C, Part-II on 'Medical Requirements and Examination for Cabin Crew' dated 05 May 14 available on DGCA website under <https://www.dgca.gov.in/digigov-portal/?dynamicPage=civilAviationRequirements/6/0/viewDynamicRulesReq>
6. DGCA Enforcement Policy and Procedure Manual.
7. Flight Crew Licensing (FCL) Circular – 01/2017 – General Instructions for conduct of Class 1 Medical examination available on dgca website under <https://www.dgca.gov.in/digigov-portal/?dynamicPage=dynamicPdf/150890518&maincircularesRulesFlightCrewLic/7/3324/viewDynamicRuleContLv12>

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Annexure 'A'

गोपनीय
CONFIDENTIAL

ना.वि. फार्म 34 (पुनः संशोधित)
CA Form 34 (Re-Revised)

भारत सरकार
Government of India
नागर विमानन विभाग
Civil Aviation Department

प्रारम्भिक विमानन लाइसेंस जारी करने के लिए डाक्टरों की जांच रिपोर्ट
MEDICAL EXAMINATION REPORT FOR INITIAL ISSUE OF AVIATION LICENCES

.....लाइसेंस के लिएकोस्थान पर की
गई डाक्टरों की जांच/
Medical Examination held at
onforlicence.

(टिप्पणी:- यह फार्म विधिवत् भरकर चिकित्सा अधिकारी द्वारा सहायक महानिदेशक स्वास्थ्य सेवा, प्रशिक्षण और अनुज्ञापन निदेशालय, नागर विमानन महानिदेशक का कार्यालय, टेक्नीकल सेंटर सफदरजंग हवाई अड्डे के सामने, नई दिल्ली को तुरन्त भेज दिया जाये।

(Note:- This form duly completed should be forwarded by the Medical Examiner PROMPTLY to the Assistant Director General of Medical Services, Directorate of Training and Licensing, Office of the Director General of Civil Aviation, Technical Centre, Opposite Safdarjung Airport, New Delhi-110003.)

भाग - I आवेदक द्वारा भरा जाये

PART - I TO BE COMPLETED BY THE APPLICANT

1. पूरा नाम (साफ अक्षरों में) श्री/श्रीमती/कुमारी
Name in full (Block letters) MR/MRS/MISS
2. पी.एम.आर फाइल संख्या
PMR File No.
3. राष्ट्रियता 4. जन्म स्थान
Nationality Place of Birth.....
5. जन्म तिथि 6. व्यवसाय
Date of Birth..... Occupation.....
7. रक्त वर्ग
Blood Group.....
8. वर्तमान पता एवं टेलीफोन नं
Present Address & Telephone No.
9. स्थायी पता
Permanent Address
10. आवेदित लाइसेंस का प्रकार ए.एल.टी.पी./एस.सी.पी./सी.पी. (एच)/एफ.ई./एफ.एन./पी.पी./एस.पी./जी.पी./एफ.आर.टी.ओ./अन्य (उल्लेख करें)
Type of Licence applied of: ALTP/SCP/CP/CP(H)/FE/FN/PP/SP/GP/FRTO/Others (specify)
11. यदि पहले कोई लाइसेंस हो तो उसका प्रकार और संख्या
Type and Number of Licence if held
12. उड़न अनुभव, यदि कोई हो: उड़ा घंटें..... विमान की किस्म
Flying Experience, if any : Flying Hours.....Aircraft type
13. क्या विमान ड्यूटी के लिए आपकी पहले कभी डाक्टरों की परीक्षा हुई है? हां/नहीं
Have you previously been examined for aviation duties? Yes/No
- 13.(अ) यदि हां, तो गत गत परीक्षा की तारीख और स्थान
If YES, place and date of last examination.....
- 13.(ब) क्या आप योग्य अथवा अयोग्य घोषित किये गये थे? योग्य/अयोग्य
Were your declared FIT or UNFIT? Fit/Unfit
- 13.(स) यदि अयोग्य हो तो अयोग्यता के कारण
Cause of Unfitness if UNFIT?

**HANDBOOK FOR
DGCA EMPANELLED MEDICAL EXAMINERS/EXAMINATION CENTRES**

प्रतिनियुक्तियां:

15. कोई अन्य सूचना :

Any other information:

16. प्रार्थी की घोषणा :

Applicant's Declaration

मैं, एतद्द्वारा-घोषित करता हूँ कि मेरे द्वारा दिए गए विवरण और उत्तर जहां तक मेरा विश्वास है, पूर्ण और सही है और यह कि मैंने कोई संगत जानकारी छिपाई नहीं है या कोई गलत सूचना नहीं दी है। मैं यह जानता हूँ कि यदि मैंने डाक्टरी प्रमाण-पत्र प्राप्त करने के लिए गलत सूचना देकर धोखा किया तो मैं दण्डनीय अपराध के लिए दोषी माना जाऊंगा। मैं स्वास्थ्य परीक्षा या मूल्यांकन करने वाले चिकित्सा अधिकारी या विभाग को किसी भी ऐसे चिकित्सा अधिकारी या अस्पताल से पत्र व्यवहार करने की सहमति देता हूँ जिससे इस जांच के बाद जारी किए गए प्रमाण-पत्र में उल्लिखित अवधि के दौरान मैंने परामर्श किया है/या परमर्श करूंगा।

I hereby declare that all statements and answers provided by me above are, to the best of my belief, complete and correct and that I have not withheld any relevant information or made any misleading statement. I understand, that if I have, with intent to deceive, made any false representations for the purpose of procuring myself a medical certificate, I may be guilty of a criminal's offence, I give my consent to the examining or assessing medical officer or department to communicate with any physician or hospital whom I have consulted or may consult during the period covered by the medical certificate issued following this examination.



आवेदक के हस्ताक्षर :

Signature of Applicant

साक्षी

Witnessed by

(चिकित्सा परीक्षक के हस्ताक्षर, नाम, आईतार्ये और पता)
(Signature, Name, Qualifications and Address of
Medical Examiner)

स्थान :

Place

तारीख :

Date

HANDBOOK FOR DGCA EMPANELLED MEDICAL EXAMINERS/EXAMINATION CENTRES

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7. अभियुक्तियां (यदि आवश्यक हो तो अतिरिक्त शीट का प्रयोग करते हुए अपसामान्य निष्कर्षों का विस्तृत व्यौरा दें)

Remark (Elaborate (ABNORMAL findings using additional sheets if required) :

दिनांक :

चिकित्सा परीक्षक (हस्ताक्षर नाम अर्हताएं और पता)

Date

Medical Examiner (Signature, Name,
Qualification and Address)

ख. आंख	सामान्य	असामान्य
B EYE	NORMAL	ABNORMAL
1. पलकें, आश्रधमणी उपकरण, नेत्रलेपला, कोर्निया, तारा, लेन्स, माध्यम, वचना, तनाव Lids, Lachrymal apparatus, conjunctival, cornea, Pupils, lens media, fundi, tension		
2. दृष्टि क्षेत्र (समक्षता परीक्षण द्वारा) Visual fields (By confrontation test)		
3. नेत्रिका गतिशीलता (संबद्ध समानान्तर, संचलन, अक्षिदोलन) Ocular motility (associated parallel movement, nystagmus)		
4. दृष्टि-तीक्ष्णता Visual Acuity		
क. दूर की नजर	दाई	बाई
a. Distant vision	RT	LT
		दोनो BOTH
(मानक परीक्षण की किस्म) (standard test type)	बिना चश्मों के Without Glasses	6/.... 6/.... 6/....
	चश्मों के साथ With Glasses	6/.... 6/.... 6/....
ख. नजदीक की नजर (30-50 से.मी. के परास में एन प्रकार)	एन	
b. Near vision (N type in the range 30 - 50 cm)	N	
बिना चश्मों/चश्मों के साथ एन 5 पढ़ने में सक्षम Able to read N5 without glasses/with glasses*		
ग. माध्यमिक नजर (100 से. मी पर एन प्रकार)	एन	
c. Intermediate vision (N type at 100 cm)	N	
बिना चश्मों/चश्मों के साथ 14 पढ़ने में सक्षम Able to read N14 without glasses/with glasses*		
घ. स्थान (बिना चश्मों या चश्मों के साथ 30 से.मी. बिन्दु के आस-पास)		
d. Accommodation (Near point 30 cm with or without glasses)		
बिना चश्मों के साथ	सें.मी.	
Without Glasses	cm	
चश्मों के साथ	सें.मी.	
With Glasses	cm	

* जो लागू न हो उसे काट दें।

* Delete the inappropriate.

HANDBOOK FOR DGCA EMPANELLED MEDICAL EXAMINERS/EXAMINATION CENTRES

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<p>5. बाहरी नेत्रिका पेशियां External Ocular Muscles</p> <p>क अभिविदता की शक्ति Power of convergence</p> <p>ख कवर टेस्ट के परिणाम b. Result of Cover test</p> <p>ग. मेडाक्स राड C. Maddox Rod</p>	<table border="0" style="width: 100%;"> <tr> <td style="width: 33%;">सी. से.मी. C cm.</td> <td style="width: 33%;">एस.सी. Sc.</td> <td style="width: 33%;">से.मी. cm.</td> </tr> <tr> <td>6 एम पर At 6 m.....</td> <td></td> <td></td> </tr> <tr> <td>33 सें मी० पर At 33 cm</td> <td></td> <td></td> </tr> <tr> <td>6 एम पर At 6</td> <td></td> <td></td> </tr> <tr> <td>33 सें मी० पर At 33 cm</td> <td></td> <td></td> </tr> </table>	सी. से.मी. C cm.	एस.सी. Sc.	से.मी. cm.	6 एम पर At 6 m.....			33 सें मी० पर At 33 cm			6 एम पर At 6			33 सें मी० पर At 33 cm		
सी. से.मी. C cm.	एस.सी. Sc.	से.मी. cm.														
6 एम पर At 6 m.....																
33 सें मी० पर At 33 cm																
6 एम पर At 6																
33 सें मी० पर At 33 cm																

6. क्या उम्मीदवार चश्मा पहनता है?
Does the candidate possess glasses?
चश्में का निर्धारण यदि लागू है
Prescription of glasses, if applicable

हां/नहीं
YES/NO

	दाई Right			बाई Left		
	एस S	सी C	ए A	एस S	सी C	ए A
दूर Distant						
नजदीक Near						

ग. रंग बोध
C. Colour perception

	हां YES	नहीं NO
1. स्फूडो इसोक्रोमेटिक (इशीहारा/जापानी) प्रकार की प्लेटो से जब जांच की गई तो सामान्य पाया गया? Is the normal when tested by pseudoisochromatic (Ishihara/Japanese) type plates?		
2. यदि वह अपसामान्य है, तो क्या वह रंगीत लालटेन से विमानन रंजित बतियां दिखाने पर आसानी से अन्तर आ सकता है? If abnormal, is there any difficulty in distinguishing readily aviation coloured lights displayed by colour lantern?		

अभियुक्तियां : (यदि आवश्यक हो तो अतिरिक्त शीट का प्रयोग करते हुए, अपसामान्य निष्कर्षों के विस्तृत व्यौरे दें)
Remarks : (Elaborate ABNORMAL findings using additional sheets if required)

दिनांक :
Date :

चिकित्सा परीक्षक (हस्ताक्षर, नाम
अर्हताएं और पता
Medical Examiner (Signature Name,
Qualification and Address

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घ. कान, नाक और गला

D. EAR, NOSE AND THROAT

1. बाहरी कान External ears	सामान्य Normal	अपसामान्य Abnormal	2. मध्य कान/ Middle ears क. कर्णपट्ट a. Tympanum ख. इयूस्टेकियन ट्यूब b. Eustachean Tube ग. कर्णमूल c. Mastoid	सामान्य Normal	अपसामान्य Abnormal
3. अन्तः कान Internal ears क. कर्णवर्त a. Cochlear functions ख. पघाण-क्रिया b. Vestibular functions			4. नाक तथा परानासा शिरनाले Nose & Paranasal sinuses (airway, septum, Ployp)		
5. मुख, दन्त, गला Mouth, teeth, throat			6. वाक Speech		

7. श्रवण
Hearing

	सी.वी. (से मी.) CV (cm)	एफ. डब्ल्यू. वी. FWV (cm)
दायां कान RT ear		
बायां कान LT ear		
दानो BOTH		

श्रवण परीक्षण (512) TUNING FORK TESTS (512)		
दायां कान RT ear	परीक्षण Test	बायां कान LT ear
	रिने Rinne's	
	वेबर Weber's	
	ए.बी.सी. ABC	

8. ध्वन्यतामिति /Audiometry

दायां कान (डेसीबल हास) RT ear (db Loss)	आवृत्ति (एच. जैड) Frequencies (Hz)	बायां कान (डेसीबल हास) LT ear (db loss)
	250	
	500	
	1000	
	2000	
	3000	

वाक पटुता परीक्षण बनाम पृष्ठभूमि में 70 बेसीबल शोर (केवल लागू होने पर)
SPEECH INTELLIGIBILITY TEST
VS BACKGROUND 70 dB NOISE
(only if applicable)

	% प्राप्तांक % Score	सामान्य Normal	अपसामान्य Abnormal
दायां कान RT ear			
बायां कान LT ear			

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9. अभियुक्तियां (यदि आवश्यक हों तो अतिरिक्त शीट का प्रयोग करते हुए अपसामान्य प्रेक्षणों का विस्तृत व्यौरा दें।
Remarks (Elaborate ABNORMAL finding using additional sheets if required)

तारीख
Date :

चिकित्सा परीक्षक (हस्ताक्षर, नाम, आर्हताएं व पता)
Medical Examiner (Signature, Name,
Qualifications and Address)

(इ) चिकित्सा परीक्षक/चिकित्सा बोर्ड के प्रेक्षण और सिफारिशें

E. Findings and Recommendations of the Medical Examiner/Medical Board

तारीख
Date :

चिकित्सा परीक्षक/चिकित्सा बोर्ड के अध्यक्ष
(हस्ताक्षर, नाम, आर्हताएं व पता)
Medical Examiner/President, Medical Board
(Signature, Name, Qualifications and Address)

**भाग III- महानिदेशक नागर विमानन मुख्यालय का अंतिम मूल्यांकन
PART III - FINAL ASSESSMENT AT THE DGCA HEADQUARTERS**

स्थान : नई दिल्ली
Place : New Delhi

संयुक्त निदेशक/निदेशक चिकित्सा सेवा
Jt. Director/Director Medical Services

तारीख
Date :

कृते महानिदेशक नागर विमानन
For Director General of Civil Aviation

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Annexure 'B'

गोपनीय
CONFIDENTIAL

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ना.दि. फार्म 34ए (पुनः संशोधित)
CA Form 34 A (Re-Revised)

भारत सरकार
GOVERNMENT OF INDIA

नागर विमानन विभाग
Civil Aviation Department

विमानन लाइसेंस नवीकरण करने के लिए डाक्टरी जांच रिपोर्ट

MEDICAL EXAMINATION REPORT FOR RENEWAL OF AVIATION LICENCES

.....लाइसेंस के लिएकोस्थान पर की
गई डाक्टरी जांच।

Medical Examination held at
onforlicence.

(टिप्पणी:- यह फार्म विधिवत् भरकर चिकित्सा अधिकारी द्वारा सहायक महानिदेशक स्वास्थ्य सेवा, प्रशिक्षण और अनुज्ञापन निदेशालय, नागर विमानन महानिदेशक का कार्यालय, टेक्नीकल सेंटर सफदरजंग हवाई अड्डे के सामने, नई दिल्ली को तुरन्त भेज दिया जाये।

(Note:- This form duly completed should be forwarded by the Medical Examiner PROMPTLY to the Assistant Director General of Medical Services, Directorate of Training and Licensing, Office of the Director General of Civil Aviation, Technical Centre, Opposite Safdarjung Airport, New Delhi-110003.)

भाग - I आवेदक द्वारा भरा जाये

PART - I TO BE COMPLETED BY THE APPLICANT

1. पूरा नाम (साफ अक्षरो में) श्री/श्रीमती/कुमारी
Name in full (Block letters) MR/MRS/MISS

2. पी एम आर फाईल संख्या.....
PMR File No.

3. राष्ट्रियता 4. जन्म स्थान
Nationality Place of Birth.....

5. जन्म तिथि 6. व्यवसाय
Date of Birth..... Occupation.....

7. रक्त वर्ग
Blood Group.....

8. वर्तमान पता एवं टेलीफोन नं
Present Address & Telephone No.

9. स्थायी पता
Permanent Address

10. आवेदित लाइसेंस का प्रकार ए.एल.टी.पी./एस.सी.पी./सी.पी. (एच)/एफ.ई./एफ.एन./पी.पी./एस.पी./जी.पी./एफ.आर.टी.ओ.
/अन्य (उल्लेख करें)
Type of Licence applied of: ALTP/SCP/CP/CP(H)/FE/FN/PP/SP/GP/FRTO/Others (specify)

11. धारक लाइसेंस का प्रकार और संख्या.....
Type and Number of licence held

12. विमान जो इस समय उड़ते हैं
Aircraft presently flown

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13. उड़ान अनुभव: कुल घंटे..... विगत परीक्षा के बाद..... घंटे.....
Flying Experience: Total hrs Since last examination hrs.
14. विगत डाक्टरी परीक्षा का स्थान और तारीख
Place and date of last medical examination.
- 14 क. क्या आपको योग्य या अयोग्य घोषित किया गया था?
Were you declared Fit or Unfit? योग्य/अयोग्य
FIT/UNFIT
- 14 ख. अयोग्यता का कारण यदि कोई हो
Cause of Unfitness, if any:
- 14 ग. महानिदेशक नागर विमानन के कार्यालय की संदर्भ संख्या और तारीख,
जिसके द्वारा आपकी पिछली चिकित्सा परीक्षा का मूल्यांकन भेजा गया था।
Director General of Civil Aviation's Office reference number
and date through which assessment was conveyed on your last medical examination:

15. पिछली डाक्टरी परीक्षा के बाद क्या आप काम से बाहर रहे हैं अथवा किसी बीमारी या चोट के कारण डाक्टर से परामर्श किया है? यदि हां, तो ब्यौरा दें?
Since your last medical examination have you lost any time from work, or have you consulted a doctor because of any illness or injury?
If YES give details ; हां/नहीं
YES/NO

16. जहां तक आपकी जानकारी और विश्वास है, आप शारिरिक और मानसिक रूप से स्वस्थ है?
Are you in good physical and mental health as far as you know and believe?

17. क्या आप इस समय कोई दवाई औषधि ले रहे हैं (इन्जेक्शन, गोलियां, कैप्सूल, मिक्सचर, आंख की दवाई, नाक की दवाई आदि)
Do you at present take any drug or medicine (Injections, tablets, capsules, mxtures, eye drops etc.)?

18. प्रार्थी की घोषणा

मैं, एतद्वारा घोषित करता हूँ कि मेरे द्वारा दिए गए विवरण और उत्तर जहां तक मेरा विश्वास है, पूर्ण और सही है और यह कि मैंने कोई संगत जानकारी छिपाई नहीं है या कोई गलत सूचना नहीं दी है। मैं यह जानता हूँ कि यदि मैंने डाक्टरी प्रमाण-पत्र प्राप्त करने के लिए गलत सूचना देकर धोखा किया तो मैं दण्डनीय अपराध के लिए दोषी माना जाऊंगा। मैं स्वास्थ्य परीक्षा या मूल्यांकन करने वाले चिकित्सा अधिकारी या विभाग को किसी भी ऐसे चिकित्सा अधिकारी या अस्पताल से पत्र व्यवहार करने की सहमति देता हूँ जिससे इस जांच के बाद जारी किए गए प्रमाण-पत्र में उल्लिखित अवधि के दौरान मैंने परामर्श किया है/या परमर्श करूंगा।

Applicant's Declaration

I hereby declare that all statements and answers provided by me above are, to the best of my belief, complete and correct and that I have not withheld any relevant information or made any misleading statement. I understand, that, if I have, with intent to deceive, made any false representations for the purpose of procuring myself a medical certificate, I may be guilty of a criminal's offence, I give my consent to the examining or assessing medical officer or department to communicate with any physician or hospital whom I have consulted or may consult during the period covered by the medical certificates issued following this examination.

स्थान:
Place
तारीख:
Date

आवेदक के हस्ताक्षर
Signature of Applicant
साक्षी:
Witnessed by
(चिकित्सा परीक्षक के हस्ताक्षर, नाम, अर्हतायें और पता)
(Signature, Name, Qualifications and
Address of Medical Examiner)

HANDBOOK FOR DGCA EMPANELLED MEDICAL EXAMINERS/EXAMINATION CENTRES

भाग II- डाक्टरी परीक्षा PART II MEDICAL EXAMINATION

क. शारीरिक व मानसिक					
A. PHYSICAL AND MENTAL					
1.	कद (बिना जूतों के) से मीटर Height (without shoes) cm			2. वजन (बिना कपड़ों के)कि. ग्राम Weight (nude).....kg.	
3.	बॉडी मास इंडेक्स..... Body Mass Index (BMI)				
4.	छाती का घेरा: (प्रश्वसन पर सें. मीटर Chest circumference: Inspiration cm			उच्छ्वास परसें. मीटर Expiration cm.	
5.	व्यवस्थित परीक्षण Systemic Examination	सामान्य Normal	असामान्य Abnormal	नाड़ी स्पंदन (बैठे हुए)...../मिनट Pulse (Seated)...../Min	
	त्वचा Skin			रक्तचाप/एम. एम./एच.जी. Blood pressure mm/Hg	
	लसीका ग्रंथी और लसीका Lymphnodes and Lymphatics			(परिवलित) (recumbent)	
	शीर्ष चेहरा, गर्दन, खोपड़ी Head, face, neck, scalp			इलेक्ट्रोकार्डियोग्राम: सामान्य/अपसामान्य/ नियत समय नहीं हुआ Electrocardiogram: Normal/Abnormal/ Not due*	
	उर्ध्व और अधः शाखायें Upper and lower extremities			छाती एक्सरे: सामान्य/अपसामान्य* X-ray Chest: Normal/Abnormal*	
	रीढ़ और पेशक काली तंत्र Spine and musculo skeletal system			(if indicated)	
	छाती और फेफड़े Chest and lungs			मूल विश्लेषण: Urinalysis:	
	हृदय Heart			विशिष्ट गुरुत्व Sp.gravity शर्करा Sugar प्रोटीन Protein	
	वाहिका तंत्र Vascular system			सूक्ष्मदर्शिक Microscopic.....	
	उदरीय और आंतरांग (जिगर, प्लीहा और हरनिया सहित) Abdomen and viscera (Including liver, spleen, hernia)			रक्त Blood	
	मूलाधार, गुदा Perincum, anus			हीमोग्लोबीन ग्राम/डी.एल. Hbgm/dl	
	जननमूत्र – तंत्र Genitourinary system			टी.एल.सी. /सी.एम.एम TLC...../CMM	
	अन्तःस्रावी तंत्र Endocrine system			डी.एल.सी.पी.%एल.%ई.% एम%बी.% DLCP%L.....%E.....% M.....% B%	
	तंत्रकीय (सहित क्रियायें संतुलन, समन्वय, संवदे आदि) Neurologic (reflexes, equilibrium, coordinatin, sence, etc.)				
	मनोविकार Psychiatric				
	महिलाओं के मामले में In case of women				
	वक्ष की जांच : सामान्य/अपसामान्य* Examination of Breasts: Normal/Abnormal*				
	गत राजसाव की तारीख..... Last menstruation date				
	श्रोणि की परीक्षण: लागू नहीं/सामान्य/अपसामान्य* Pelvic examination: Not applicable/Normal/Abnormal*				

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6. अभियुक्तियां (यदि आवश्यक हो तो अतिरिक्त शीट का प्रयोग करते हुए अपसामान्य निष्कर्षों का विस्तृत व्यौरा दें)
Remark (Elaborate ABNORMAL findings using additional sheets if reuired):

दिनांक:
Date:

चिकित्सा परीक्षक (हस्ताक्षर, नाम, अर्हतायें और पता)
Medical Examiner (Signature, Name
Qualification and Address)

ख. आंख B EYE	सामान्य NORMAL	असामान्य ABNORMAL	
1. पलकें, आश्रधमणी उपकरण, नेत्ररलेभला, कोर्निया, तारा, लेन्स, माध्यम, वछना, तनाव Lids, Lachrymal apparatus, conjunctiva, cornea, Pupils, lens, media, fundi, tension			
2. दृष्टि क्षेत्र (समक्षता परीक्षण द्वारा) Visual fields (By confrontation test)			
3. नेत्रिका गतिशीलता (संबद्ध समानान्तर, अक्षिदोलन) Ocular motility (associated parallel movement, nystagmus)			
4. दृष्टि-तीक्ष्णता Visual Acuity			
क. दूर की नजर (मानक परीक्षण की किस्म) a. Distant vision (standard test type)		दाई RT	बाई LT
		दोनो BOTH	
बिना चश्मे के Without Glasses	6/....	6/.....	6/....
चश्मे के साथ With Glasses	6/...	6/...	6/....
ख. नजदीक की नजर (30-50 से.मी. के परास में एन प्रकार) b. Near vision (N type in the range 30 - 50 cm)		एन	N
बिना चश्मे/चश्मे के साथ एन 5 पढ़ने में सक्षम Able to read N5 without glasses/with glasses*			
ग. माध्यमिक नजर (100 से. मीटर पर एन प्रकार) c. Intermediate vision (N type at 100 cm)		एन	N
बिना चश्मे/चश्मे के साथ 14 पढ़ने में सक्षम Able to read N14 without glasses/with glasses*			
घ. स्थान (बिना चश्मे या चश्मे के साथ 30 से.मी. बिन्दु के आस-पास) d. Accommodation (Near point 30 cm with or without glasses)			
बिना चश्मे के साथ से.मी. Without Glasses cm			
चश्मे के साथ से.मी. With Glasses cm.			

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5. बाहरी नेत्रिका पेशियां

External Ocular Muscles

क. अभिविद्रता की शक्ति

a. Power of convergence

सी.

C

से.मी.

Cm

एस.सी.

Sc

से.मी.

cm

ख. कवर स्टेट के परिणाम

b. Result of Cover test

6 एम पर

33 सी. एम. पर

At 6 m

At 33 cm

ग. मैडॉक्स राड

c. Maddox Rod

6 एम पर

33 सी. एम. पर

At 6 m

At 33 cm

6 क्या उम्मीदवार चश्मा पहनता है?

Does the candidate possess glasses?

चश्मे का निर्धारण यदि लागू है

Prescription of glasses, if applicable

हां/नहीं

YES/NO

	दाई Right			बाई Left		
	एस S	सी C	ए A	एस S	सी C	ए A
दूर Distant						
नजदीक Near						

ग. रंग बोध

C. COLOUR PERCEPTION

हां

YES

नहीं

NO

1. क्या न्यूट्रॉइसोक्रोमेटिक (इशीहारा/जापानी) प्रकार की प्लेटों से जब जांच की गई तो सामान्य पाया गया?
Is the normal when tested by pseudoisochromatic (Ishihara/Japanese) type plates?

2. यदि वह अपसामान्य है, तो क्या वह रंगीन लालटेन से विमानन रोजत बत्तियां दिखाने पर आसानी से अन्तर आ सकता है?
If abnormal, is there any difficulty in distinguishing readily aviation coloured lights displayed by colour lantern?

अभियुक्तियां (यदि आवश्यक हों तो अतिस्वित शीट का प्रयोग करते हुए, अपसामान्य निष्कर्षों के विस्तृत व्यौरे दें)
Remarks (Elaborate ABNORMAL findings using additional sheets if required)

दिनांक:

Date:

चिकित्सा परीक्षक (हस्ताक्षर, नाम और
अर्हताएं और पता

Medical Examiner (Signature, Name
Qualification and Address)

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6

घ. कान, नाक और गला

D. EAR, NOSE AND THROAT

	सामान्य NORMAL	अपसामान्य ABNORMAL	2 मध्य कान/ Middle ears क. कर्णपतट्ट a. Tympanum ख. इयूस्टेकियन ट्यूब b. Eustachean Tube ग. कर्णमूल c. Mastoid	सामान्य NORMAL	अपसामान्य ABNORMAL
1. बाहरी कान External ears					
3. अन्तः कान Internal ears क. कर्णावर्त a. Cochlear functions ख. प्रधाण-क्रिया b. Vestibular functions			4. नाक तथा परानासा शिरनाले Nose & Paranasal sinuses (airway, septum, Polyp)		
5. मुख, दन्त, गला Mouth, teeth, throat			6. वाक Speech		

7. श्रवण Hearing	सी.वी. (सें.मी.) CV (cm)	एफ. डब्ल्यू. वी. FWV (cm)	श्रवण परीक्षण (512) TUNING FORK TESTS (512)		
			दायां कान RT ear	परीक्षण Test	बायां कान LT ear
दायां कान RT ear				रिने Rinner's	
बायां कान LT ear				वेबर Weber's	
दोनों BOTH				ए.बी.सी. ABC	

8 श्रव्यतामिति/Audiometry

दायां कान (डेसीबल हास) RT ear (dB Loss)	आवृत्ति (एच. जैड) Frequencies (Hz)	बायां कान (डेसीबल हास) LT ear (dB loss)	वाक पटुता परीक्षण बनाम पृष्ठभूमि में 70 बेसीबल शोर (केवल लागू होने पर) SPEECH INTELLIGIBILITY TEST VS BACKGROUND 70 dB NOISE (only if applicable)		
			% प्राप्तांक % Score	सामान्य Normal	अपसामान्य Abnormal
	250				
	500				
	1000		दायां कान RT ear		
	2000		बायां कान LT ear		
	3000				

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9. अभियुक्तियां (यदि आवश्यक हों तो अतिरिक्त शीट का प्रयोग करते हुए अपसामान्य प्रेक्षणों का विस्तृत व्यौर दें।
Remarks (Elaborate ABNORMAL findings using additional sheets if required)

तारीख
Date:

चिकित्सा परीक्षक(हस्ताक्षर, नाम, आर्हताएं व पता)
Medical Examiner (Signature , Name,
Qualifications and Address)

(६) चिकित्सा परीक्षक/चिकित्सा बोर्ड के प्रेक्षण और सिफारिशें
E FINDINGS AND RECOMMENDATIONS OF THE MEDICAL EXAMINER/MEDICAL BOARD

तारीख
Date:

चिकित्सा परीक्षक/चिकित्सा बोर्ड के अध्यक्ष
(हस्ताक्षर, नाम, आर्हताएं व पता)
Medical Examiner (Signature , Name,
Qualifications and Address)

**भाग- III महानिदेशक नागर विमानन मुख्यालय का अंतिम मूल्यांकन
PART III - FINAL ASSESSMENT AT THE DGCA HEADQUARTERS**

स्थान: नई दिल्ली
Place: New Delhi

संयुक्त निदेशक/निदेशक चिकित्सा सेवा
Jt. Director/Director Medical Services

तारीख:
Date

कृते महानिदेशक नागर विमानन
For Director General of Civil Aviation

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Annexure 'C'

ना.दि. फार्म 35 (संशोधित)
C.A. Form 35 (Revised)

भारत सरकार
GOVERNMENT OF INDIA
नागर विमानन विभाग
CIVIL AVIATION DEPARTMENT
डाक्टरी प्रमाण पत्र
MEDICAL CERTIFICATE

मैं, नीचे हस्ताक्षर करने वाला
प्रमाणित करता हूँ कि (1) कि जिनका जन्म स्थान
जन्म तारीख है और जो का अधिवासी है लाइसेंस को
प्रारम्भिक रूप से जारी करने/नवीयन के लिए डाक्टरी परीक्षा हो चुकी है और उन्हें उड़ान कर्मीदल के सदस्य की हैसियत से नौकरी करने के योग्य/अयोग्य/अस्थायी
रूप से अयोग्य पाया गया है (2)

I, the undersigned
certify that(1) born at
the domiciled at has
undergone a medical examination for initial issue/renewal of Licence and that he / she has been found fit/unfit/temporarily
unfit to serve in the capacity of a flight crew member as (2)

चिकित्सा अधिकारी की सिफारिशें:

Recommendations of Medical Officer :

इस रिपोर्ट का अन्तिम मूल्यांकन निदेशक, चिकित्सा सेवा, वायुसेना मुख्यालय, नई दिल्ली द्वारा किया जाएगा।

This report is subject to final assessment by the Director of Medical Services. Air Headquarter, New
Delhi..... स्थान पर तारीख को दिया गया।
Given atthe..... day of.....

परीक्षित व्यक्ति के हस्ताक्षर
Signature of person examined

चिकित्सा परीक्षक के हस्ताक्षर
Signature of Medical Examiner
कार्यालय मुहर
Office stamp

(1) नाम, कुल नाम, मुख्य नाम और ईसाई (उप) नाम।

Name, Surname, Principal name/and Christian (sub) names.

(2) उड़ान कर्मीदल के सदस्य के रूप में किस हैसियत से नियुक्त करना है।

Indication of the capacity in which to be employed as flight crew member.

*मैं इसके द्वारा यह घोषित करता हूँ कि उपर्युक्त डाक्टरी परीक्षा की तारीख से लेकर आज तक मेरे साथ कोई दुर्घटना नहीं हुई और न ही
मैं किसी बीमारी या अशक्तता से पीड़ित हुआ।

I hereby declare that since the date of the above medical examination I have not been involved in any
accident, nor suffered from any illness or disability.

स्थान तारीख हस्ताक्षर
Place Date Signature

* यदि डाक्टरी परीक्षा हुए 30 दिन से अधिक समय हो चुका हो तो उम्मीदवार को उपर्युक्त घोषणा पर अपने हस्ताक्षर करने चाहिए।

* The candidate should sign the above declaration, if more than 30 days have passed since his medical examination.