Appendix A to Notification
[Refers to para 6]

भारतीय वायु सेना
Indian Air Force

MEDICAL STANDARDS FOR AIR FORCE COMMON ADMISSION TEST (AFCAT- 02/2023) FOR FLYING BRANCH AND GROUND DUTY (TECHNICAL AND NON-TECHNICAL) BRANCHES/ NCC SPECIAL ENTRYFOR COURSES COMMENCING IN JULY 2024

GENERAL INSTRUCTIONS

1. In this section, standardized guidelines for the physical assessment of candidates for commissioning through AFCAT into flying branch and ground duty Technical and Non-Technical branches/NCC Special Entry in the IAF are elaborated. The newly introduced WS branch will have the same medical standards as applicable to Administration Branch. The purpose of these guidelines is to lay down uniform physical standards and to ensure that the candidates are free of health conditions that may hamper or limit their performance in the respective branch. The guidelines enumerated in this section are meant to be applied in conjunction with the standard methods of clinical examination.

2. All candidates during their induction should meet the basic physical fitness standards which will enable them to proficiently undergo the training and the subsequent service in varied climatic and work environments. A candidate will not be assessed physically fit unless the complete examination shows that he/ she is physically and mentally capable of withstanding the severe physical and mental strain for prolonged periods. The requirements of medical fitness are essentially the same for all branches, except for aircrew in whom the parameters for visual acuity, anthropometry and certain other physical standards are more stringent.

3. The results of initial examination are recorded on AFMSF – 2. The complete medical examination consists of:-

(a) A questionnaire, which is to be carefully and truthfully completed by the candidate and countersigned by the examining medical officer. The importance of all aspects of the questionnaire, including the legal aspect, should be emphasised to all the candidates. Any subsequent detection of disability or revelation of a significant past history, not declared earlier, may lead to disqualification at any stage prior to commissioning. USG abdomen would be conducted for all candidates and cadets during medical examination prior to commissioning.

(b) A complete medical and surgical examination including dental examination and gynecological examination in women.

(c) An ophthalmic examination.

(d) An examination of the ear, nose and throat.

4. The medical standards spelt out pertain to initial entry medical standards. Continuation of medical fitness during training will be assessed during the periodic medical examinations held at AFA prior to commissioning.

5. Medical standards described in the following paragraphs are general guidelines. They are not exhaustive, in view of the vast spectrum of diseases. These standards are subject to change with the advancement in the scientific knowledge and change in working conditions of Armed Forces.

6. Mandatory Lab and Radiological Investigations

(a) Hematology: Complete Hemogram
(b) Biochemistry: Liver function tests, Renal Function tests
(c)Urine RE and ME
(d)Radiology: USG abdomen and Pelvis, X-ray chest PA view, X-ray LS Spine, AP and Lateral views
(e)ECG

GENERAL PHYSICAL ASSESSMENT

7. Every candidate, to be fit for the Air Force, must conform to the minimum standards laid down in the succeeding paragraphs. The physical parameters should fall within the acceptable ranges and should be proportionate.

8. The residual effects of old fractures/ injuries are to be assessed for any functional limitation. If there is no effect on function, the candidate can be assessed fit. Following categories should be meticulously assessed:

(a) **Spine injuries**. Cases of old fractures of spine are unfit. Any residual deformity of spine or compression of a vertebra will be cause for rejection.

(b) **Nerve injuries**. Injuries involving the trunks of the larger nerves, resulting inloss of function, or neuroma formation, which causes pain significant tingling, indicate unsuitability for employment in flying duties.

(c) **Keloids**. The presence of large or multiple keloids will be a cause for rejection.

9. (a) **Surgical Scars**Minor well-healed scars for e.g. as resulting from any superficial surgery do not, per se, indicate unsuitability for employment. Extensive scarring of a limb or torso that may cause functional limitation or unsightly appearance should be considered unfit.

(b) **Birth Marks**. Abnormal pigmentation in the form of hypo or hyper- pigmentation is not acceptable. Localized, congenital mole/ naevus, however, is acceptable provided its size is <10 cm. Congenital multiple naevi or vascular tumours that interfere with function or are exposed to constant irritation are not acceptable.

(c) **Subcutaneous Swellings.** Lipoma will be considered fit unless the lipoma is causing significant disfigurement/ functional impairment due to the size/ location. Neurofibroma, if single will be considered fit. Multiple neurofibromas associated with significant Café-au-lait spots (more than 1.5 cm size or more than one in number) will be considered unfit.

10. **Cervical Rib**. Cervical rib without any neuro-vascular compromise will be accepted. Meticulous clinical examination to rule out neuro-vascular compromise should be performed in such cases. This should be documented in the Medical Board proceedings.

11. **Cranio-facial Deformities**. Asymmetry of the face and head or uncorrected deformities of skull, face or mandible which will interfere with proper fitting of oxygen mask, helmet or military headgear will be considered unfit. Major deformities even after corrective surgery will be considered unfit.

12. **History relating to Operations.** A candidate who has undergone an abdominal operation involving extensive surgical intervention or partial/ total excision of any organ is, as a rule, unfit for service. Operation involving the cranial vault with any residual bony defect will be unfit. Major thoracic operations will make the candidate unfit.

MEASUREMENTS AND PHYSIQUE

13. **Chest Shape and Circumference.** The shape of the chest is as important as its actual measurement. The chest should be well proportioned and well developed. Any chest deformity likely to

interfere with physical exertion during training and performance of military duties or adversely impact military bearing or are associated with any cardio-pulmonary or musculoskeletal anomaly are to be considered unfit. Minimum recommended chest circumference for cadets is 77 cm. The chest expansion should be at least 05 cm for all candidates. For the purpose of documentation, any decimal fraction lower than 0.5 cm will be ignored, 0.5 cm will be recorded as such and 0.6 cm and above will be recorded as 1 cm.

Height, Sitting Height, Leg Length and Thigh Length.

14. Minimum height for Flying Branch will be 162.5 cm. Acceptable measurements of leg length, thigh length and sitting height for such aircrew will be as under: -

(a)	Sitting height	Minimum	-	81.5 cm
		Maximum	-	96.0 cm
(b)	Leg Length	Minimum	-	99.0 cm
		Maximum	-	120.0 cm
(c)	Thigh Length	Maximum	-	64.0 cm

The minimum height for entry into ground duty branches will be 157.5 cm. For Gorkhas and individual belonging to North-Eastern regions of India and hilly regions of Uttarakhand, the minimum acceptable height will be 5 cm less (152.5 cm). In case of candidates from Lakshadweep the minimum acceptable height can be reduced by 2 cm (155.5 cm).

15. **Body Weight Parameters**

(a) Male Candidates (except NDA candidates). Ideal weight relative to age and height is given in **Appendix 'B'** to this notification. The weight will be rounded off to the nearest 0.5 kg. The maximum permissible variation from the ideal body weight is ± 1 SD.

(b) For in-service candidates the criteria of body weight applicable to serving personnel will be used.

16. Weights higher than the prescribed limit will be acceptable only in exceptional circumstances in case of those candidates where there is documented evidence of bodybuilding, wrestling and boxing. However, in such cases, the following criteria will have to be met:

(a) BMI should be below 27.

(b) Waist Hip ratio should be below 0.9 for males and 0.8 for females.

(c) Waist circumference should be less than 94 cm for males and 89 cm for females.

(d) All biochemical metabolic parameters should be within normal limits.

17. **Physical Standards (For Females)**

(a) **Height.** The minimum height acceptable for various branches are as follows:-

(i) Flying Branch - 162.5 cm

(ii) Other Branches - 152 cm

Note: For other branches only – For candidates belonging to the North East region or hilly regions of Uttarakhand, a lower minimum height of 147 cm will be accepted. In case of candidates from Lakshadweep, the minimum acceptable height will be 150 cm.

(b) **Weight**. Weight should conform to the standards given for height and age as given in Appendix 'B' to this notification. Variations upto ± 1SD for female candidates are acceptable**.**

18. **CARDIOVASCULAR SYSTEM**

(a) History of chest pain, breathlessness, palpitation, fainting attacks, giddiness, rheumatic fever, ankle swelling, chorea, frequent sore throats and tonsillitis should be given due consideration in assessment of the cardiovascular system.

(b) **Pulse.** Rate, rhythm, volume, tension, regularity of the pulse and conditions of the arterial wall are assessed. The normal pulse rate varies from 60-100 bpm. The pulse should be counted for one full minute. The pulsations for the radial and femoral arteries should always be compared and any difference, if any, should be recorded. Other peripheral pulsations viz. carotid, popliteal, posterior tibial artery and dorsalis pedis artery on both sides should also be palpated and any difference, if noted should be documented. Persistent sinus tachycardia (> 100 bpm) as well as persistent sinus bradycardia (< 60 bpm) are unfit. In case bradycardia is considered to be physiological, the candidate can be declared fit after evaluation by Medical Specialist/ Cardiologist.

(c) **Blood Pressure:** Candidate with BP consistently greater than 140/90mm of Hg will be rejected. All such candidates shall undergo a 24 hour ambulatory blood pressure monitoring (24 h ABPM) to differentiate between white coat hypertension and persistent hypertension. Wherever feasible, candidates will be evaluated by a cardiologist at AMB. Those with normal 24 h ABPM and without target organ damage can be considered fit after evaluation by a cardiologist at AMB.

(d) **Cardiac Murmurs**. Evidence of organic cardiovascular disease will be cause for rejection. Diastolic murmurs are invariably organic. Short systolic murmurs of ejection systolic nature and not associated with thrill and which diminish on standing, especially if associated with a normal ECG and chest radiograph, are most often functional. In case of any doubt the case should be referred to cardiologist for opinion.

(e) **ECG:** Any ECG abnormality detected at SMB will be a ground for rejection. Such candidates will be evaluated by a cardiologist during AMB with echocardiography for structural abnormality and stress test if deemed necessary. Benign ECG abnormalities like incomplete RBBB, T wave inversion in inferior leads, T inversion in V1-V3 (persistent juvenile pattern), LVH by voltage criteria (due to thin chest wall) may exist without any structural heart disease. Echocardiography should be performed in all such cases to rule out an underlying structural heart disease and opinion of senior Adviser (Medicine/ Cardiologist) should be obtained. If echocardiography and stress tests (if indicated) are normal, the individual can be considered fit.

(f) **Cardiac surgery and interventions.** Candidates with history of cardiac surgery/ intervention in the past will be considered unfit.

19. **RESPIRATORY SYSTEM**

(a) History of pulmonary tuberculosis, pleurisy with effusion, frequent episodes of expectorant cough, haemoptysis, frequent episodes of bronchitis, asthma, spontaneous pneumothorax and injuries to the chest should be elicited. Spirometry/ Peak Expiratory Flow Rate may be done in cases suspected to have obstructive airway disease. In case there is any suspicion of lung pathology, relevant investigations, including X Ray/ CT chest/ Immunological tests etc may be carried out to decide fitness. Final fitness in doubtful cases will be decided only at appeal level after opinion of Sr Adv (Med)/ Pulmonologist.

(b) **Pulmonary Tuberculosis**. Any residual scarring in pulmonary parenchyma or pleura, as evidenced by a demonstrable opacity on chest radiogram will be a ground for rejection. Old treated cases with no significant residual abnormality can be accepted if the diagnosis and treatment was completed more than two years earlier. In these cases, a CT scan chest and fibreoptic bronchoscopy with bronchial lavage can be done along with USG, ESR, PCR, Immunological tests and Mantoux test as decided by the Physician. If all the tests are normal the candidate may be considered fit. However, in such cases fitness will only be decided at Appeal/ Review Medical Board.

(c) **Pleurisy with Effusion.** Any evidence of significant residual pleural thickening will be a cause for rejection.

(d) **Bronchitis.** History of repeated attacks of cough/ wheezing/ bronchitis may be manifestations of chronic bronchitis or other chronic pathology of the respiratory tract. Such cases will be assessed unfit. Pulmonary Function Tests may be carried out, if available. In such cases, opinion of the Medical Specialist/ Chest Physician may be obtained.

(e) **Bronchial Asthma.** History of repeated attacks of bronchial asthma/ wheezing/ allergic rhinitis will be a cause for rejection.

(f) **Radiographs of the Chest.** Definite radiological evidence of disease of the lungs, mediastinum and pleurae are criteria for declaring the candidate unfit. If required, investigations as outlined in para 19(a) above can be carried out under the advice of a pulmonologist.

(g) **Thoracic surgery.**Candidate with history of any resection of the lung parenchyma will be considered unfit. Any other major surgery of the thorax will be considered on a case to case basis.

20. **GASTROINTESTINAL SYSTEM**

(a) The examiner should enquire whether the candidate has any past history of ulceration or infection of the mouth, tongue, gums or throat. Record should be made of any major dental alteration. When discussing a candidate‘s medical history the examiner must ask direct questions about any history of heartburn, history of recurrent dyspepsia, peptic ulcer-type pain, chronic diarrhoea, jaundice or biliary colic, indigestion, constipation, bleeding PR and any abdominal surgery.

(b) **Bladder diverticulum will be declared as Unfit**.

(c) **Head to toe examination.** Presence of any sign of liver cell failure (e.g. loss of hair, parotidomegaly, spider naevi, gynaecomastia, testicular atrophy, flapping tremors etc) and any evidence of malabsorption (pallor, nail and skin changes, angular cheilitis, pedal edema) will entail rejection. The condition of oral mucosa, gums and any restriction of mouth opening should be noted.

(d) **Gastro-Duodenal Disabilities**. Candidates who are suffering or have suffered, during the previous one year, from symptoms suggestive of acid-peptic disease including proven peptic ulcers, are not to be accepted. Any past surgical procedure involving partial or total loss of an organ (other than vestigial organs/ gall bladder) will entail rejection.

(e) **Diseases of the Liver**. If past history of jaundice is noted or any abnormality of the liver function is suspected, full investigation is required for assessment. Candidates suffering from viral hepatitis or any other form of jaundice will be rejected. Such candidates can be declared fit after a minimum period of 6 months has elapsed provided there is full clinical recovery; HBV and HCV status are both negative and liver functions are within normal limits. History of recurrent jaundice and hyperbilirubinemia of any nature is unfit.

(f) **Disease of the Spleen**. Candidates who have undergone partial/ total splenectomy are unfit, irrespective of the cause for operation.

(g) **Hernia.** Hernial sites are to be examined for presence of inguinal, epigastric, umbilical and femoral hernia.Any abdominal wall hernia is unfit. A candidate with a well-healed surgical scar, after 06 months of either open or laparoscopic repair (Anterior Abdominal wall hernia-24 weeks), is considered fit provided there is no evidence of recurrence and the abdominal wall musculature is good.

(h) **Abdominal Surgery**

(i) A candidate with well-healed scar after conventional abdominal surgery will be considered fit after one year of successful surgery provided there is no potential for any recurrence of the underlying pathology, no evidence of incisional hernia and the condition of the abdominal wall musculature is good.

(ii) A candidate after laparoscopic cholecystectomy will be considered fit if 08 weeks have passed since surgery provided they are free from signs and symptoms and their evaluation including LFT and USG abdomen are normal and there is total absence of gall bladder with no intra-abdominal collection. Other abdominal laparoscopic procedures can also be considered fit after 08 weeks of surgery provided the individual is asymptomatic, recovery is complete and there is no residual complication or evidence of recurrence.

(j) **Anorectal Conditions.** The examiner should do a digital rectal examination and rule out haemorrhoids, sentinel piles, anal skin tags, fissures, sinuses, fistulae, prolapsed, rectal mass or polyps.

(i) Fit

(aa) Only external skin tags.

(ab) After rectal surgery for polyps, fistula or ulcer, provided there is no residual/ recurrent disease.

(ac) **After Anal Fissure surgery** Gd IV Hemorrhoids: 12 weeks

(ad) **Pilonidal Sinus**: After 12 weeks of surgery

(ii) Unfit

(a) Rectal prolapse even after surgical correction

(ab) Active anal fissure

(ac) Haemorrhoids (external or internal)

(ad) Anal Fistula

(ae) Anal or rectal polyp

(af) Anal stricture

(ag) Faecal incontinence

(k) **Ultrasonography of Abdomen**

(i) **Liver**

(aa) Fit

(aaa) Normal echo-anatomy of the liver, CBD, IHBR, portal and hepatic veins with liver span not exceeding 15 cm in the mid- clavicular line.

(aab) Solitary simple cyst (thin wall, anechoic) upto 2.5 cm diameter provided that the LFT is normal and hydatid serology is negative.

(aac) Hepatic calcifications to be considered fit if solitary and less than 1 cm with no evidence of active disease like tuberculosis, sarcoidosis, hydatid disease or liver abscess based on relevant clinical examinations and appropriate investigations.

(ab) <u>Unfit</u>

(aaa) Hepatomegaly more than 15 cm in mid-clavicular line.

(aab) Fatty liver – Grade 2 and 3, grade 1 in presence of abnormal LFT.

(aac) Solitary cyst > 2.5 cm.

(aad) Solitary cyst of any size with thick walls, septations, papillary projections, calcifications and debris.

(aae) Multiple hepatic calcifications or cluster > 1 cm.

(aaf) Multiple hepatic cysts of any size.

(aag) Any haemangioma irrespective of the size and location.

(aah) Portal vein thrombosis.

(aaj) Evidence of portal hypertension (PV >13 mm, collaterals, ascites).

(ii) **<u>Gall Bladder</u>**

(aa) <u>Fit</u>

(aaa) Normal echo-anatomy of the gall bladder.

(aab) **<u>Post Laparoscopic Cholecystectomy</u>**. 08 weeks (Normal LFT, normal histopathology)

(aac) **<u>Post Open Cholecystectomy</u>**. 24 weeks (In the absence of incisional hernia)

(ab) <u>Unfit</u>

(aaa) Cholelithiasis or biliary sludge.

(aab) Choledocolithiasis.

(aac) Polyp of any size and number.

(aad) Choledochal cyst.

(aae) Gall bladder mass.

(aaf) Gall bladder wall thickness > 05 mm.

(aag) Septate gall bladder.

(aah) Persistently contracted gall bladder on repeat USG.

(aaj) Incomplete Cholecystectomy

(ac) **<u>Agenesis of Gall Bladder</u>** Will be considered fit in the absence of any other abnormality of the biliary tract. MRCP will be done for all cases.

(iii) **Spleen**

(aa) Unfit

(aaa) Spleen more than 13 cm in longitudinal axis (or if clinically palpable).

(aab) Any Space Occupying Lesion in the spleen.

(aac) Asplenia.

(aad) Candidates who have undergone partial/ total splenectomy are unfit, irrespective of the cause of operation.

(iv) **Pancreas**

(aa) Unfit

(aaa) Any structural abnormality.

(aab) Space Occupying Lesion/ Mass lesion.

(aac) Features of chronic pancreatitis (calcification, ductal abnormality, atrophy).

(v) **Peritoneal Cavity**

(aa) Unfit

(aaa) Ascites.

(aab) Solitary mesenteric or retroperitoneal lymph node >1 cm. (Single retroperitoneal LN <1 cm and normal in architecture may be considered fit).

(aac) Two or more lymph nodes of any size

(aad) Any mass or cyst.

(vi) Major Abdominal Vasculature (Aorta/ IVC). Any structural abnormality, focal ectasia, aneurysm and calcification will be considered as unfit.

(vii) Appendicectomy

(i) **Laparoscopic Appendectomy** will be assessed for post-operative fitness after a minimum period of **04 weeks**. Candidates will be considered fit if: -

(aa) Post site scars have healed well

(ab) Scars are supple

(ac) Histo-pathological report of acute appendicitis is available.

(ad) USG confirmation of absence od port site incisional hernia

(ii) **Open Appendectomy with muscle split approach** will be assessed for post op fitness after a minimum period **12 weeks**. Candidates will be considered fit if:-

(aa) Wound has healed well

(ab) Scar is supple and non tender

(ac) Histo-pathological report of acute appendicitis is available

(ad) USG confirmation of absence of surgical site incisional hernia

(iii) **Open Appendectomy with muscle cut approach** will be assessed for post op fitness after a minimum period **06 months**. Candidates will be considered fit if:-

(aa) Wound has healed well

(ab) Scar is supple and non tender

(ac) Histo-pathological report of acute appendicitis is available

(ad) USG confirmation of absence of surgical site incisional hernia

21. **UROGENITAL SYSTEM**

(a) Enquiry should be made about any alteration in micturition or urinary stream e.g. dysuria, frequency, poor stream etc. Recurrent attacks of cystitis; pyelonephritis and haematuria must be excluded from history. Detailed enquiry must be made about any history of renal colic, attacks of acute nephritis, any operation on the renal tract including loss of a kidney, passing of stones or urethral discharges. If there is any history of enuresis, past or present, full details must be obtained. History of urethral discharge and Sexually Transmitted Disease (STD) should be elicited.

(b) The external genitalia should be meticulously examined to rule out the presence of congenital anomalies e.g. hypospadias, epispadias, ambiguous genitalia, undescended testis (UDT) or ectopic testis etc. Conditions like hydrocele, varicocele, epididymal cyst, phimosis, urethral stricture, meatal stenosis etc should also be ruled out. The criteria to be followed are as follows:

(i) **Undescended testis (UDT)**

(aa) Unfit – Any abnormal position of testis (unilateral or bilateral) is unfit. Bilateral orchidectomy due to any cause such as trauma, torsion or infection is unfit.

(ab) Fit - Operatively corrected UDT may be considered fit at least 04 weeks after surgery, provided after surgical correction, the testis is normal in location and the wound has healed well. Unilateral atrophic testis/ unilateral orchidectomy for benign cause may be considered fit, provided other testis is normal in size, fixation and location.

(ii) **Varicocele**

(aa) Unfit – All grades of current varicocele.

(ab) Fit - Post-operative cases of varicocele with no residual varicocele and no post op complication or testicular atrophy may be made fit after **08 weeks** of surgery, for sub-inguinal varicocoelectomy.

(iii) **Hydrocele**

(aa) Unfit – Current hydrocele on any side.

(ab) Fit - Operated cases of hydrocele may be made fit after **08 weeks** of surgery, if there are no post-op complications and wound has healed well.

(iv) **Epididymal Cyst/ Mass, Spermatocele**

(aa) Unfit – Current presence of cyst / mass.

(ab) Fit – Post operative cases, where wound has healed well, there is no recurrence and only when benign on histopathology report.

(v) **Epididymitis/ Orchitis**

(aa) Unfit – Presence of current orchitis or epididymitis/ tuberculosis.

(ab) Fit – After treatment, provided the condition has resolved completely.

(vi) **Epispadias/ Hypospadias**

(aa) Unfit – All are unfit, except glanular variety of hypospadias and epispadias, which is acceptable.

(ab) Fit – Post-operative cases at least 08 weeks after successful surgery, provided recovery is complete and there are no complications.

(vii) **Penile Amputation.** Any amputation will make the candidate unfit.

(viii) **Phimosis**

(aa) Unfit – Current phimosis, if tight enough to interfere with local hygiene and voiding and/ or associated with Balanitis Xerotica Obliterans.

(ab) Fit – Operated cases will be considered fit after 04 weeks of surgery, provided wound is fully healed and no post-op complications are seen.

(ix) **Meatal Stenosis**

(aa) Unfit – Current disease, if small enough to interfere with voiding.

(ab) Fit – Mild disease not interfering with voiding and post-operative cases after a period of 04 weeks of surgery with adequately healed wound and no post op complications.

(x) **Stricture Urethra, Urethral Fistula.** Any history of / current cases or post-op cases are unfit.

(xi) **Sex reassignment surgery/ Intersex condition.** Unfit

(xii) **Nephrectomy.** All cases, irrespective of the type of surgery (Simple/ radical/ donor/ partial/ RFA/ cryo-ablation) are unfit.

(xiii) **Renal Transplant Recipients.** Unfit

(xiv) **Urachal Cyst :**08 Weeks (To be declared fit in the absence of any remnant)

(c) **Urine Examination**

(i) **Proteinuria.** Proteinuria will be a cause for rejection, unless it proves to be orthostatic.

(ii) **Glycosuria.** When glycosuria is detected, a blood sugar examination (fasting and after 75 g glucose) and glycosylated Hb is to be carried out, and fitness decided as per results. Renal glycosuria is not a cause for rejection.

(iii) **Urinary Infections.** When the candidate has history or evidence of urinary infection it will entail full renal investigation. Persistent evidence of urinary infection will entail rejection.

(iv) **Haematuria.** Candidates with history of haematuria will be subjected to full renal investigation.

(d) **Glomerulonephritis**

(i) **Acute.** In this condition there is a high rate of recovery in the acute phase, particularly in childhood. A candidate who has made a complete recovery and has no proteinuria may be assessed fit, after a minimum period of one year after full recovery.

(ii) **Chronic.** Candidate with chronic glomerulonephritis will be rejected.

(e) **Renal Calculi:** Irrespective of size, numbers, obstructive or non-obstructive,history of renal calculi (history or radiological evidence) will render a candidate Unfit.

(f) **Sexual Transmitted Diseases and Human Immuno Deficiency Virus (HIV).** Seropositive HIV status and/ or evidence of STD will entail rejection.

Ultrasonography of the Abdomen - Urogenital System

(g) **Kidneys, ureters and urinary bladder**

(i) Unfit

(aa) Congenital structural abnormalities of kidneys or urinary tract

(aaa) Unilateral renal agenesis.

(aab) Unilateral or bilateral hypoplastic/ contracted kidney of size less than 08 cm.

(aac) Malrotation of kidney.

(aad) Horseshoe kidney.

(aae) Ptosed kidney.

(aaf) Crossed fused/ ectopic kidney.

(ab) **Simple renal cyst> 1.5 cm**

(ac) Complex cyst/ polycystic disease/ multiple or bilateral cysts.

(ad) Renal/ ureteric/ vesical mass.

(ae) Hydronephrosis or Hydroureteronephrosis.

(af) Calculi - Renal/ Ureteric/ Vesical.

(ag) Calyectasis

(ii) Fit - Solitary, unilateral, simple renal cyst <1.5 cm provided the cyst is peripherally located, round/ oval, with thin smooth wall and no loculations, with posterior enhancement, no debris, no septa and no solid component.

(iii) During Appeal Medical Board/ Review Medical Board unfit candidates will be subjected to specific investigations and detailed clinical examination. Candidates having isolated abnormality of echo texture of Kidney may be considered fit if Renal Function, DTPA scan and CECT kidney is normal.

(h) **Scrotum and Testis.** The following cases will be made unfit:

(i) Bilateral atrophied testis.

(ii) Varicocele (Unilateral or bilateral).

(iii) Any abnormal location of testis (Unilateral or Bilateral).

(iv) Hydrocele

(v) Epididymal lesions e.g. cyst.

22. **ENDOCRINE SYSTEM**

(a) History should be carefully elicited for any endocrine conditions particularly Diabetes Mellitus, disorders of thyroid and adrenal glands, gonads etc. Any history suggestive of endocrine disorders will be a cause for rejection. In case of any doubt, Medical Spl/ Endocrinologist opinion should be taken.

(b) A thorough clinical examination to detect any obvious disease of the endocrine system should be carried out. Any clinical evidence of endocrine disease will be unfit.

(c) All cases of thyroid swelling having abnormal iodine uptake and abnormal thyroid hormone levels will be rejected. All cases of thyroid swelling are unfit.

(d) Candidates detected to have diabetes mellitus will be rejected. A candidate with a family history of Diabetes Mellitus will be subjected to blood sugar (Fasting and after Glucose load) and HbA1c evaluation, which will be recorded.

23. **DERMATOLOGICAL SYSTEM**

(a) Careful interrogation followed by examination of the candidate's skin is necessary to obtain a clear picture of the nature and severity of any dermatological condition claimed or found. Borderline skin conditions should be referred to a dermatologist. Candidates who give history of sexual exposure to a Commercial Sex Worker (CSW), or have evidence of healed penile sore in the form of a scar should be declared permanently unfit, even in absence of an overt STD, as these candidates are likely 'repeaters' with similar indulgent promiscuous behavior.

(b) **Assessment of Diseases of the Skin.** Acute non-exanthematous and non-communicable diseases, which ordinarily run a temporary course, need not be a cause of rejection. Diseases of a trivial nature, and those, which do not interfere with general health or cause incapacity, do not entail rejection.

(c) Certain skin conditions are apt to become active and incapacitating under tropical conditions. An individual is unsuitable for service if he has a definite history or signs of chronic or recurrent skin disease. Some of such conditions are described below:-

(i) Some amount of Palmoplantar Hyperhydrosis is physiological, considering the situation that recruits face during medical examination. However, candidates with significant Palmoplantar Hyperhydrosis should be considered unfit.

(ii) Mild (Grade I) acne consisting of few comedones or papules, localized only to the face may be acceptable. However, moderate to severe degree of acne (nodulocystic type with or without keloidal scarring) or involving the back should be considered unfit.

(iii) Any degree of palmoplantar keratoderma manifesting with hyperkeratotic and fissured skin over the palms, soles and heels should be considered unfit.

(iv) Ichthyosis involving the upper and lower limbs, with evident dry, scaly, fissured skin should be considered unfit. Mild xerosis (dry skin) could be considered fit.

(v) Candidates having any keloid should be considered unfit.

(vi) Clinically evident onychomycosis of finger and toe-nails should be declared unfit, especially if associated with nail dystrophy. Mild degree of distal discoloration involving single nail without any dystrophy may be acceptable.

(vii) Giant congenital melanocytic naevi, greater than 10 cm should be considered unfit, as there is a malignant potential in such large sized naevi.

(viii) Single corns/ Warts/ Callosities will be considered fit, three months after successful treatment and no recurrence. However, candidates with multiple warts/ corns/ callosities on palms and soles or diffuse palmoplantar mosaic warts, large callosities on pressure areas of palms and soles should be rejected.

(ix) Psoriasis is a chronic skin condition known to relapse and/or recur and hence should be considered unfit.

(x) Candidates suffering from minor degree of Leukoderma affecting the covered parts may be accepted. Vitiligo limited only to glans penis and prepuce may be considered fit. Those having extensive degree of skin involvement and especially, when the exposed parts are affected, even to a minor degree, should be made unfit.

(d) A history of chronic or recurrent episodes of skin infections will be cause for rejection. Folliculitis or sycosis barbae from which there has been complete recovery may be considered fit.

(e) Individuals who have chronic or frequently recurring episodes of a skin disease of a serious or incapacitating nature e.g. eczema are to be assessed as permanently unfit and rejected.

(f) Any sign of Leprosy will be a cause for rejection. All peripheral nerves should be examined for any thickness of the nerves and any clinical evidence suggestive of leprosy is a ground for rejection.

(g) Naevus depigmentosus and Beckers naevus may be considered fit. Intradermal naevus, vascular naevi are to be made unfit.

(h) Pityriasis Versicolor is to be made unfit.

(j) Any fungal infection (like Tinea Cruris and Tinea Corporis) of any part of the body will be unfit.

(k) Scrotal Eczema may be considered fit on recovery.

(l) Canities (premature graying of hair) may be considered fit if mild in nature and no systemic association is seen.

(m) Intertrigo may be considered fit on recovery.

(n) Genital Ulcers should be considered unfit. Anal and perianal area should also be included as a part of genital examination to rule out STD.

(o) Scabies may be considered fit only on recovery.

(p) Alopecia areata single and small (<2 cm in diameter) lesion on scalp can be accepted. However if multiple, involving other areas or having scarring, the candidate should be rejected.

24. **RECONSTRUCTIVE SURGERY**

(a). **Gynaecomastia** Gynaecomastia: Candidates to be considered fit after 12 weeks of post-operative period if: -

(i) There is a well healed surgical wound with no residual disease

(ii) No post operative complication

(iii) Surgical scar should be sufficiently matured and unlikely to cause any problems during military training

(iv) Normal general physical examination

(v) Endocrine workup is normal

(b). **Polymazia** Candidates to be considered fit after 12 weeks of post operative period if the there is no post operative complication with a well healed surgical wound and no residual disease.

25. **MUSCULOSKELETAL SYSTEM AND PHYSICAL CAPACITY**

(a) Assessment of the candidate's physique is to be based upon careful observation of such general parameters as apparent muscular development, age, height, weight and the correlation of this i.e. potential ability to acquire physical stamina with training. The candidate's physical capacity is affected by general physical development or by any constitutional or pathological condition.

(b) **SPINAL CONDITIONS** Past medical history of disease or injury of the spine or sacroiliac joints, either with or without objective signs, which has prevented the candidate from successfully following a physically active life, is a cause for rejection for commissioning. History of recurrent lumbago/ spinal fracture/ prolapsed intervertebral disc and surgical treatment for these conditions will entail rejection.

(c) **Evaluation of Spine**

(i) **Clinical Examination.** Normal thoracic kyphosis and cervical/ lumbar lordosis are barely noticeable and not associated with pain or restriction of movement.

(aa) If clinical examination reveals restriction of spine movements, deformities, tenderness of the spine or any gait abnormalities, it will be considered unfit.

(ab) Gross kyphosis, affecting military bearing/ restricts full range of spinal movements and/or expansion of chest is unfit.

(ac) Scoliosis is unfit, if deformity persists on full flexion of the spine, when associated with restricted range of spine movements or when due to an underlying pathological cause. When scoliosis is noticeable or any pathological condition of the spine is suspected, radiographic examination of the appropriate part of the spine needs to be carried out.

(ii) **Spina Bifida.** The following markers should be looked for, on clinical examination and corroborated with radiological evaluation:

(aa) Congenital defects overlying the spine e.g. hypertrichosis, skin dimpling, haemangioma, pigmented naevus or dermal sinus.

(ab) Presence of lipoma over spine.

(ac) Palpable spina bifida.

(ad) Abnormal findings on neurological examination.

(d) **Radiograph Spine.** For flying duties, radiograph (AP and lateral views) of cervical, thoracic and lumbosacral spine is to be carried out. For ground duties, radiographic examination of spine may be carried out, if deemed necessary by Medical Officer/ Specialist.

(e) **Spinal Conditions Unfit for Air Force Duties (Both Flying and Ground Duties)**

(i) **Congenital/ Developmental Anomalies**

(aa) Wedge Vertebra

(ab) Hemivertebra

(ac) Anterior Central Defect

(ad) Cervical Ribs (Unilateral/ Bilateral) with demonstrable neurological or circulatory deficit

(ae) Spinabifida:- All types are unfit except in sacrum and LV5 (if completely sacralised)

(af) Loss of Cervical Lordosis when assessed with clinically restricted movement of cervical spine.

(ag) Scoliosis:-

(aaa) Lumbar Scoliosis greater than 15 degrees

(aab) Thoracic scoliosis greater than 20 degrees

(aac) Thoraco-lumbar scoliosis greater than 20 degrees

Assessment of scoliosis. Idiopathic scoliosis upto 10 degrees for Lumbar Spine and 15 degrees of Dorsal Spine will be acceptable provided:

(i) Individual is asymptomatic

(ii) No history of trauma to spine

(iii) No chest asymmetry/shoulder imbalance or pelvic obliquity in the lumbar spine.

(iv) There is no neurological deficit

(v) No congenital anomaly of the spine

(vi) There is absence of syndromic features

(vii) ECG is normal

(viii) No deformity exists on full flexion of the spine

(ix) No restriction of range of movements

(x) No organic defect causing structural abnormality

(ah) Atlanto-occipital and Atlanto-axial anomalies

(aj) Incomplete Block (fused) vertebra at any level in cervical, dorsal or lumbar spine.

(ak) Complete Block (fused) vertebra at more than one level in cervical or dorsal spine. (Single level is acceptable. Annotation is to be made in AFMSF-2)

(al) Unilateral sacralisation or lumbarisation (complete or incomplete) and Bilateral incomplete sacralisation or lumbarisation (LSTV- Castellvi Type II a & b, III a & IV) (Bilateral Complete Sacralisation of LV5 and Bilateral Complete Lumbarisation of SV1 i.e LSTV Castellvi Type III b and Type I a & b are acceptable (Annotation is to be made in AFMSF-2)

(ii) **<u>Traumatic Conditions</u>**

(aa) Spondylolysis/ Spondylolisthesis

(ab) Compression fracture of vertebra

(ac) Intervertebral Disc Prolapse

(ad) Schmorl's Nodes at more than one level

(iii) **<u>Infective</u>**

(aa) Tuberculosis and other Granulomatous disease of spine (old or active)

(ab) Infective Spondylitis

(iv) **<u>Autoimmune</u>**

(aa) Rheumatoid Arthritis and allied disorders

(ab) Ankylosing spondylitis

(ac) Other rheumatological disorders of spine e.g Polymyositis, SLE and Vasculitis

(v) **<u>Degenerative</u>**

(aa) Spondylosis

(ab) Degenerative Joint Disorders

(ac) Degenerative Disc Disease

(ad) Osteoarthrosis/ osteoarthritis

(ae) Scheuerman's Disease (Adolescent Kyphosis)

(vi) **Any other spinal abnormality, if so considered by the specialist.**

(f) **<u>CONDITIONS AFFECTING THE ASSESSMENT OF UPPER LIMBS</u>**

(i) Deformities of the upper limbs or their parts will be cause for rejection. Candidate with an amputation of a limb will not be accepted for entry. Amputation of terminal phalanx of little finger on both sides is, however, acceptable.

(ii) **<u>Healed Fractures</u>**

(a) All intra-articular fractures especially of major joints (Shoulder, elbow, wrist, hip, knee and ankle) with or without surgery, with or without implant shall be considered unfit.

(b) All extra-articular fractures with post operative implant in-situ shall be considered unfit and will be considered for fitness after minimum of 12 weeks of implant removal.

(c) Nine(09) months will be the minimum duration for considering evaluation following extra-articular injuries of all long bones (both upper and lower limbs) post injury which have been managed conservatively. Individual will be considered fit if there is:-

(i) No evidence of mal alignment/malunion

(ii) No neuro vascular deficit

(iii) No soft tissue loss

(iv) No function deficit

(v) No evidence of osteomyelitis/sequestra formation

(iii) Fracture of the upper limb, presenting 06 months after the injury with none of the sequelae as mentioned above are acceptable after assessment by orthopaedic surgeon.

(iv) **<u>Fingers and Hands</u>**

(a) **<u>Polydactyly</u>** Can be assessed for fitness 12 weeks post op. Can be declared fit if there is no bony abnormality(X-Ray), wound is well healed, scar is supple and there is no evidence of neuroma on clinical examination.

(b) **<u>Simple syndactyly</u>** Can be assessed for fitness 12 weeks post op. Can be declared fit if there is no bony abnormality(X-Ray), wound is healed, scar is supple and webspace is satisfactory.

(c) **<u>Complex syndactyly</u>**Unfit

(d) **<u>Hyperextensible finger joints</u>** All candidates shall be thoroughly examined for hyperextensible finger joints. Any extension of fingers bending backwards beyond 90 degrees shall be considered hyper extensible and considered unfit. Other joints like knee, elbow, spine and thumb shall also be examined carefully for features of hyper laxity/hypermobility. Although the individual may not show features of hyper laxity in other joints, isolated presentation of hyper extensibility of finger joints shall be considered unfit because of the various ailments that may manifest later if such candidates are subjected to strenuous physical training.

(e) **Mallet Finger** Loss of extensor mechanism at the distal interphalangeal joint leads to Mallet finger. Chronic mallet deformity can lead to secondary changes in the PIP and MCP joint which can result in compromised hand function. Normal range of movement at DIP joints is 0-80 degree & PIP joint is 0-90 degrees in both flexion and extension. In Mallet finger candidate is unable to extend/straighten distal phalanx of fingers completely.

(f) Candidates with mild condition i.e less than 10 degrees of extension lag without any evidence of trauma, pressure symptoms and any functional deficit should be declared Fit.

(g) Candidates with fixed deformity of fingers will be declared unfit.

(v) **Wrist.** Painless limitation of movement of the wrist will be assessed according to the degree of stiffness. Loss of dorsiflexion is more serious than loss of palmar flexion.

(vi) Hyperextension at elbow joint: Individuals can have naturally hyperextended elbow. This condition is not a medical problem, but can be a cause of fracture or chronic pain especially considering the stress and strains military population is involved in. Also, the inability to return the elbow to within 10 degrees of the neutral position is impairment in the activities of daily living.

(a) Measurement modality: Measured using a goniometer

(b) Recommendation: Normal elbow extension is 0 degrees. Up to 10 degrees of hyperextension is within normal limits if the patient has no history of trauma to the joint. Anyone with hyperextension more than 10 degrees should be unfit.

(vii) Cubitus Varus of > 5 degree will be unfit.

(viii) **Cubitus recurvatum**Cubitus recurvatum>10 degrees is unfit

(viii) **Shoulder Girdle**. History of recurrent dislocation of shoulder with or without corrective surgery will be unfit.

(ix) **Clavicle**. Non-union of an old fracture clavicle will entail rejection. Mal-united clavicle fracture without loss of function and without obvious deformity are acceptable.

(g) CONDITIONS AFFECTING THE ASSESSMENT OF LOWER LIMBS

(i) Hallux valgus with angle >20 degrees and first-second metatarsal angle of >10 degrees is unfit. Hallux valgus of any degree with bunion, corns or callosities is unfit.

(ii) Hallux rigidus is unfit for service.

(iii) Isolated single flexible mild hammer toe without symptoms may be accepted. Fixed (rigid) deformity or hammer toe associated with corns, callosities, mallet toes or hyperextension at meta-tarso-phalangeal joint (claw toe deformity) are to be rejected.

(iv) Loss of any digits/ toes entails rejection.

(v) Extra digits will entail rejection if there is bony continuity with adjacent digits. Cases of syndactyly will be rejected.

(vi) **Pes Planus (Flat feet)**

(aa) If the arches of the feet reappear on standing on toes, if the candidate can skip and run well on the toes and if the feet are supple, mobile and painless, the candidate is acceptable.

(ab) Rigid or fixed flat feet, gross flat feet, with planovalgus, eversion of heel, cannot balance himself on toes, cannot skip on the forefoot, tender painful tarsal joints, prominent head of talus will be considered unfit. Restriction of the movements of the foot will also be a cause for rejection. Rigidity of the foot, whatever may be the shape of the foot, is a cause for rejection.

(vii) **Pes Cavus and Talipes (Club Foot).** Mild degree of idiopathic pes cavus without any functional limitation is acceptable. Moderate and severe pes cavus and pes cavus due to organic disease will entail rejection. All cases of Talipes (Club Foot) will be rejected.

(viii) **Ankle Joints.** Any significant limitation of movement following previous injuries will not be accepted. Functional evaluation with imaging should be carried out wherever necessary.

(ix) **Knee Joint**. Any ligamentous laxity is not accepted. Candidates who have undergone ACL reconstruction surgery are to be considered unfit.

(x) Genu valgum (knock knee) with intermalleolar distance > 5 cm in males and > 8 cm in females will be unfit.

(xi) Genu varum (bow legs) with intercondylar distance >7 cm will be considered unfit.

(xii) **Genu Recurvatum.** If the hyperextension of the knee is within 10 degrees and is unaccompanied by any other deformity, the candidate should be accepted as fit.

(xiii) True lesions of the hip joint or early signs of arthritis will entail rejection.

(xiv) **Peripheral Vascular System**

(aa) Varicose Veins. All cases with active varicose veins will be declared unfit. Post-op cases of varicose veins also remain unfit.

(ab) Arterial System. Current or history of abnormalities of the arteries and blood vessels e.g. aneurysms, arteritis and peripheral arterial disease will be considered unfit.

(ac) Lymphoedema. History of past/ current disease makes the candidate unfit.

26. **CENTRAL NERVOUS SYSTEM**

(a) A candidate giving a history of mental illness/ psychological afflictions requires detailed investigation and psychiatric referral. Such cases should normally be rejected. Most often the history is not volunteered. The examiner should try to elicit a history by direct questioning, which may or may not be fruitful. Every examiner should form a general impression of the candidate's personality as a whole and may enquire into an individual's stability and habitual reactions to difficult and stressful situations. Family history and prior history of using medication is also relevant.

(b) History of insomnia, phobias, nightmares or frequent sleepwalking or Bed-wetting, when recurrent or persistent, will be a cause for rejection.

(c) Common types of recurrent headaches are those due to former head injury or migraine. Other forms of occasional headache must be considered in relation to their probable cause. A candidate with migraine, which was severe enough to make him consult his doctor, should normally be a cause for rejection. Even a single attack of migraine with visual disturbance or Migrainous epilepsy is to be made unfit.

(d) History of epilepsy in a candidate is a cause for rejection. Convulsions/ fits after the age of five are also a cause for rejection. Convulsions in infancy may not be of ominous nature provided it appears that the convulsions were febrile convulsions and were not associated with any overt neurological deficit. Causes of epilepsy include genetic factors, traumatic brain injury, stroke, infection, demyelinating and degenerative disorders, birth defects, substance abuse and withdrawal seizures. Enquiry should not be limited only to the occurrence of major attacks. Seizures may masquerade as — "faints" and therefore the frequency and the conditions under which — "faints" took place must be elicited. Such attacks will be made unfit, whatever their apparent nature. An isolated fainting attack calls for enquiry into all the attendant factors to distinguish between syncope and seizures e.g. fainting in school are of common occurrence and may have little significance. Complex partial seizures, which may manifest as vegetative movements as lip smacking, chewing, staring, dazed appearance and periods of unresponsiveness, are criteria for making the candidate unfit.

(e) History of repeated attacks of heat stroke, hyperpyrexia or heat exhaustion bars employment for Air Force duties, as it is an evidence of a faulty heat regulating mechanism. A single severe attack of heat effects, provided the history of exposure was severe, and no permanent sequelae were evident is, by itself, not a reason for rejecting the candidate.

(f) A history of severe head injury is a cause for rejection. Other sequelae of head injury like post-concussion syndrome, focal neurological deficit and post traumatic epilepsy should be noted which may be associated with subjective symptoms of headache, giddiness, insomnia, restlessness, irritability, poor concentration and attention deficits. Post traumatic neuropsychological impairment can also occur which includes deficits in attention concentration, information processing speeds, mental flexibility and frontal lobe executive functions and psychosocial functioning. Neuropsychological testing including pyschometry can assess these aspects. It is important to realize that sequelae may persist for considerable period and may even be permanent. Fracture of the skull need not be a cause for rejection unless there is a history of associated intracranial damage or any residual bony defect in the calvaria. When there is a history of severe injury or an associated convulsive attack, an electroencephalogram should be carried out which must be normal. Presence of burr holes will be cause for rejection for flying duties, but not for ground duties. Each case is to be judged on individual merits. Opinion of Neurosurgeon and Psychiatrist must be obtained before acceptance.

(g) When a history of nervous breakdown, mental disease, or suicide of a near relative is obtained, a careful investigation of the personal past history from a psychological point of view is to be obtained. Any evidence of even the slightest psychological instability in the personal history or present condition should entail rejection and the candidate should be referred to the psychiatrist for further evaluation.

(h) If a family history of epilepsy is admitted, an attempt should be made to determine its type. When the condition has occurred in a near (first degree) relative, the candidate may be accepted, if he has no history of associated disturbance of consciousness, neurological deficit or higher mental functions and his electroencephalogram is completely normal.

(j) The assessment of emotional stability must include family and personal history, any indication of emotional instability under stress as evidenced by the occurrence of undue emotionalism as a child or of any previous nervous illness or breakdown. The presence of stammering, tic, nail biting, excessive hyperhydrosis or restlessness during examination could be indicative of emotional instability and should be made unfit.

(k) All candidates who are suffering from psychosis are to be rejected. Drug dependence in any form will also be a cause for rejection.

(l) **Psychoneurosis**. Mentally unstable and neurotic individuals are unfit for commissioning. Juvenile and adult delinquency, history of nervous breakdown or chronic ill-health is causes for rejection. Particular attention should be paid to such factors as unhappy childhood, poor family background, truancy, juvenile and adult delinquency, poor employment and social maladjustment records, history of nervous breakdown or chronic ill-health, particularly if these have interfered with employment in the past.

(m) Any evident neurological deficit should call for rejection.

(n) Tremors are rhythmic oscillatory movements of reciprocally innervated muscle groups. Two categories are recognized: normal or physiologic and abnormal or pathologic. Fine tremor is present in all contracting muscle groups, it persists throughout the waking state, the movement is fine between 8 to 13 Hz. Pathologic tremor is coarse, between 4 to 7 Hz and usually affects the distal part of limbs. Gross tremors are generally due to enhanced physiological causes where, at the same frequency, the amplitude of the tremor is grossly enhanced and is elicited by outstretching the arms and fingers which are spread apart. This occurs in cases of excessive fright, anger, anxiety, intense physical exertion, metabolic disturbances including hyperthyroidism, alcohol withdrawal and toxic effects of lithium, smoking (nicotine) and excessive tea, coffee. Other causes of coarse tremor are Parkinsonism, cerebellar tremors (intentional tremors), essential (familial) tremor, tremors of neuropathy and postural or action tremors.

(o) Candidates with stammering will not be accepted for Air Force duties. Careful assessment by ENT Specialist, Speech therapist, psychologist/ psychiatrist may be required in doubtful cases.

(p) **Basal Electroencephalogram (EEG)**. EEG is to be recorded for candidates for aircrew duties only in case there is a history of epilepsy in the family, past history of head injury and/or any other psychological or neurological abnormality noted in the past. These aspects will be carefully enquired into. In case of other candidates also, EEG can be taken if indicated or considered necessary by the medical examiner. Those with following EEG abnormalities in resting EEG or EEG under provocative techniques will be rejected for aircrew duties: -

(i) **Background Activity.** Focal, excessive and high amplitude beta activity/hemispherical asymmetry of more than 2.3 Hz/generalized and focal runs of slow waves approaching background activity in amplitude.

(ii) **Hyperventilation.** Paroxysmal spikes and slow waves/spikes/focal spike pattern.

(iii) **Photo Stimulation.** Bilaterally synchronous or focal paroxysmal spikes and slow waves persisting in post-photic stimulation period/suppression or driving response over one hemisphere.

(q) Non specific EEG abnormality will be acceptable provided opinion of Neuropsychiatrist/ Neurophysician is obtained. The findings of EEG will be entered in AFMSF-2. In case an EEG is reported as abnormal, the cadet would be referred to CHAF (B) for a comprehensive evaluation by neurophysician followed by review by a Board at IAM IAF.

(r) **Hyperstosis frontalis interna.** Will be considered fit in the absence of any other metabolic abnormality.

27. **EAR, NOSE AND THROAT**

(a) **History.**Any significant history of otorrhoea, hearing loss, vertigo including motion sickness, tinnitus etc is to be elicited.

(b) **Nose and Para-nasal Sinuses**. The following entails rejection:

(i) Gross external deformity of nose causing cosmetic deformity may be rejected if it adversely impacts military bearing. However, minor deformities of dorsum and nasal tip should not be a cause of rejection.

(ii) Obstruction to free breathing as a result of a marked septal deviation. Post corrective surgery with residual mild deviation with adequate airway patency will be acceptable.

(iii) **Septal perforation:** Nasal septal perforation can be anterior cartilaginous or posterior bony perforation. Any septal perforation greater than 01 cm in the greatest dimension is a ground for rejection. A septal perforation which is associated with nasal deformity, nasal crusting, epistaxis and granulation irrespective of the size is a ground for rejection.

(iv) Atrophic rhinitis.

(v) Any history/clinical evidence suggestive of allergic rhinitis/ vasomotor rhinitis will entail rejection.

(vi) Any infection of the para-nasal sinuses will be declared unfit. Such cases may be accepted following successful treatment at the Appeal Medical Board.

(vii) **Nasal polyposis:** It is also known as Chronic Rhinosinusitis with polyposis (CRSwNP). Nasal polyposis is mostly associated with allergy, asthma, sensitivity to NSAIDs and infection i.e bacterial and fungal. Most of these patients have high chances of recurrence and require long term management with nasal/oral steroids and are unfit for extremes of climate and temperature conditions. Any individual detected to have nasal polyposis on examination or with history of having undergone surgery for nasal polyposis will be rejected.

(c) **Oral Cavity**

(i) Unfit

(aa) Current/ operated cases of leukoplakia, erythroplakia, submucous fibrosis, ankyloglossia and oral carcinoma.

(ab) Current oral ulcers/ growths and mucous retention cysts.

(ac) Trismus due to any cause.

(ad) Cleft palate, even after surgical correction.

(ii) Fit

(aa) Completely healed oral ulcers.

(ab) Operated cases of mucus retention cyst with no recurrence and proven benign histology. Evaluation in these cases should be done after minimum 04 weeks post-surgery.

(ac) Sub-mucous cleft of palate with or without bifid uvula not causing Eustachian tube dysfunction may be accepted by ENT specialist, provided PTA, tympanometry and speech are normal.

(d) **Pharynx and Larynx**. The following conditions will entail rejection:

(i) Any ulcerative/ mass lesion of the pharynx.

(ii) Candidates in whom tonsillectomy is indicated. Such candidates may be accepted minimum 02 weeks after successful surgery provided there are no complications and histology is benign.

(iii) Cleft palate.

(iv) Any disabling condition of the pharynx or larynx causing persistent hoarseness or dysphonia.

(v) Chronic laryngitis, vocal cord palsy, laryngeal polyps and growths.

(e) Obstruction or insufficiency of Eustachian tube function will be a cause for rejection. Altitude chamber ear clearance test will be carried out before acceptance in in-service candidates.

(f) The presence of tinnitus necessitates investigation of its duration, localization, severity and possible causation. Persistent tinnitus is a cause for rejection, as it is liable to become worse through exposure to noise and may be a precursor to Otosclerosis and Meniere's disease.

(g) Specific enquiry should be made for any susceptibility to motion sickness. An endorsement to this effect should be made in AFMSF-2. Such cases will be fully evaluated and, if found susceptible to motion sickness, they will be rejected for flying duties. Any evidence of peripheral vestibular dysfunction due to any cause will entail rejection.

(h) A candidate with a history of dizziness needs to be investigated thoroughly.

(j) **Hearing loss.**The following are not acceptable:

(i) Any reduction less than 600 cm in CV/ FW.

(ii) Wherever PTA is indicated and thresholds are obtained, the audiometric loss greater than 20 db, in frequencies between250 and 8000 Hz.

(iii) Free field hearing loss is a cause for rejection.

Note: In evaluating the audiogram, the baseline zero of the audiometer and the environmental noise conditions under which the audiogram has been obtained should be taken into consideration. On the recommendation of an ENT Specialist, an isolated unilateral hearing loss up to 30 db may be condoned provided ENT examination is otherwise normal.

(k) **Ears.** A radical/modified radical mastoidectomy entails rejection even if completely epithelialised and good hearing is preserved. Cases of cortical mastoidectomy in the past with the tympanic membrane intact, normal hearing and presenting no evidence of disease may be accepted.

(l) **External Ear**. The following defects of external ear should be declared unfit:

(i) Gross deformity of pinna which may hamper wearing of uniform/ personal kit/ protective equipment, or which adversely impacts military bearing.

(ii) Cases of chronic otitis externa.

(iii) Exostoses, atreisa/ narrowing of EAM or neoplasm preventing a proper examination of the ear drum.

(iv) Exaggerated tortuosity of the canal, obliterating the anterior view of the tympanic membrane will be a cause for rejection.

(v) Granulation or polyp in external auditory canal.

Bony growth of external auditory canal: Any candidate with clinically evident bony growth of external auditory canal like exostosis, osteoma, fibrous dysplasia etc. will be declared Unfit. Assessment of operated cases will be done after minimum period of 4 weeks. Post surgery histopathology report and HRCT temporal bone will be mandatory. If the histopathological report is suggestive of a neoplasia or HRCT temporal bone is suggestive of partial removal or deep extension, it would entail rejection.

(m) **Middle Ear.** The following conditions of middle ear will entail rejection:-

(i) **Otitis Media:** Current Otitis Media of any type will entail rejection. Evidence of healed chronic otitis media in the form of tympanosclerosis/scarred tympanic membrane effecting less than 50% of pars tensa of tympanic membrane will be assessed by ENT specialist and will be acceptable if Pure Tone Audiometry (PTA) and Tympanometry are normal. All cases of tympanoplasty and Myringoplasty/Myringotomy for Chronic Otitis Media will entail permanent rejection.

(ii) Attic, central or marginal perforation.

(iii) Tympanosclerosis or scarring affecting >50 % of the Pars Tensa of TM is unfit even if PTA and tympanometry are normal. Evidence of healed chronic Otitis Media in the form of Tympanosclerosis or scarrign affecting <50 % of Pars Tensa of TM will be assessed by ENT spl and will be acceptable if PTA and tympanometry are normal. A trial of decompression chamber may be carried out, if indicated, for aircrew, ATC/FC, submariners/divers.

(iv) Any residual perforation in cases of old otitis media.

(v) Marked retraction or restriction in TM mobility on pneumatic otoscopy.

(vi) Any hearing impairment on forced Whisper test.

(vii) Deranged pure tone audiometry thresholds.

(viii) Tympanometry showing patterns other than Type ‘A’ tympanogram.

(ix) Any implanted hearing devices e.g. cochlear implants, bone anchored hearing aids etc.

(x) After middle ear surgeries viz. stapedectomy, ossiculoplasty, any type of canal-wall down mastoidectomy.

Note: Healed healthy scars of neo-tympanic membrane involving <50 % of Pars Tensa due to Type 1 Tympanoplasty (with or without Cortical Mastoidectomy) for Chronic Otitis Media (Mucosal type) and Myringotomy (for Otitis Media with Effusion) may be acceptable if PTA, Tympanoplasty are normal. Assessment of operated cases will be done only after a minimum of 12 weeks. A trial in Decompression Chamber may be carried out, if indicated, for aircrew, ATC/FC, submariners/ divers.

(n) **Miscellaneous Ear Conditions.** The following ear conditions will entail rejection:-

(i) Otosclerosis.

(ii) Meniere‘s disease.

(iii) Vestibular dysfunction including nystagmus of vestibular origin.

(iv) Bell‘s palsy following ear infection.

28. **<u>OPHTHALMIC SYSTEM</u>**

(a) Visual defects and medical ophthalmic conditions are amongst the major causes of rejection from flying duties. Therefore, a thorough and accurate eye examination is of great importance for all candidates, especially those for flying duties.

(b) **<u>Personal and Family History and External Examination</u>**

(i) Squint and the need for spectacles for other reasons are frequently hereditary and a family history may give valuable information on the degree of deterioration to be anticipated. Candidates, who are wearing spectacles or found to have defective vision, should be properly assessed. All cases of squint should be made unfit by recruiting MO and by Specialist. Individuals with manifest squint are not acceptable for commissioning. However, small horizontal latent squint/ Phoria i.e. Exophoria/ Esophoria may be considered fit by the specialist along with Grade III BSV. Hyperphoria/ Hypophoria or cyclophoria are to be made unfit.

(ii) **<u>Ptosis</u>** Candidate will be considered Fit post-operative provided there is no recurrence one year after surgery, visual axis is clear with normal visual fields and upper eyelid is 02 mm below the superior limbus. Candidates, who have not undergone surgery for the condition, would be considered fit if they meet the following criteria: -

(a) Mild ptosis

(b) Clear visual axis

(c) Normal visual field

(d) No sign of aberrant degeneration/ head tilt

(iii) **<u>Exotropia</u>** Unfit

(iv) **<u>Anisocoria</u>** If size difference between the pupils is >01 mm, candidate will be considered unfit.

(v) **<u>Heterochromia irides</u>:** Unfit

(vi) **<u>Sphincter tears</u>:** Can be considered fit is size difference between pupils is <01 mm, pupillary reflexes are brisk with no observed pathology in cornea, lens or retina.

(v) **<u>Pseudophakia</u>:** Unfit

(vi) Candidates with uncontrollable blepharitis, particularly with loss of eyelashes, are generally unsuitable and should be rejected. Severe cases of blepharitis and chronic conjunctivitis should be assessed as temporarily unfit until the response to treatment can be assessed.

(vii) These cases of Ectropion/ Entropion are to be made unfit. Mild ectropion and entropion which in the opinion of ophthalmologist will not hamper day to day functioning in any way, may be made fit.

(viii) All cases of progressive pterygium to be made unfit by recruiting MO and specialist. Regressive non vascularised pterygium likely to be stationary occupying ≤ 1.5 mm of the peripheral cornea may be made fit by eye spl after measurement on a slit lamp.

(ix) All cases of nystagmus are to be made unfit except for physiologic nystagmus.

(x) Naso-lacrymal occlusion producing epiphora or a mucocele entails rejection, unless surgery produces relief lasting for a minimum of six months and the post op syringing is patent.

(xi) Uveitis (iritis, cyclitis, and choroiditis) is frequently recurrent, and candidates giving a history of or exhibiting this condition should be carefully assessed. When there is evidence of permanent lesions such candidates should be rejected.

(xii) Corneal scars, opacities will be cause for rejection unless it does not interfere with vision. Such cases should be carefully assessed before acceptance, as many conditions are recurrent.

(xiii) **Lenticular opacities:** Any lenticular opacity causing visual deterioration, or is in the visual axis or is present in an area of 07 mm around the pupils, which may cause glare phenomenon, should be considered unfit. The propensity of the opacities not to increase in size 0 number should also be a consideration when deciding fitness. Small stationery lenticular opacities in the periphery like congenital blue dot cataract, not affecting the visual axis/ visual field may be considered by specialist (should be less than 10 in number and central area of 04 mm to be clear).

(xiv) **Optic Nerve Drusen** Unfit

(xv) **High Cup- Disc ratio:** Candidate will be declared Unfit if any of the fwg conditions exist:

(a) Inter –Eye asymmetry in cup Disc ratio > 0.2

(b) Retinal Nerve fibre Layer(RNFL) defect seen by RNFL analysis on OCT

(c) Visual Field defect detected by visual Field Analyser

(xvi) Visual disturbances associated with headaches of a migrainous type are not a strictly ocular problem, and should be assessed in accordance with para 3 of Central Nervous System Section mentioned above. Presence of diplopia or detection of nystagmus requires proper examination, as they can be due to physiological reasons.

(xvii) Night blindness is largely congenital but certain diseases of the eye exhibit night blindness as an early symptom and hence, proper investigations are necessary before final assessment. As tests for night blindness are not routinely performed, a certificate to the effect that the individual does not suffer from night blindness will be obtained in every case. Certificate should be as per **Appendix 'D'** to this notification. A proven case of night-blindness is unfit for service.

(xviii) Restriction of movements of the eyeball in any direction and undue depression/ prominence of the eyeball requires proper assessment.

(xix) **Retinal lesions**. A small healed chorio-retinal scar in the retinal periphery not affecting the vision and not associated with any other complications can be made fit by specialist. Similarly a small lattice in periphery with no other complications can be made fit. Any lesion in the central fundus will be made unfit by the specialist.

(xx) **Lattice: The following lattice degeneration will render a candidate Unfit.**

(a) Single circumferential lattice extending more than two clock hours in either or both eyes.

(b) Two circumferential lattices each more than one clock hour in extent in either or both eyes.

(c) Radial lattices

(d) Any lattice with atrophic hole/ flap tears (Unlasered)

(e) Lattice degeneration posterior to equator

Candidates with lattice degeneration will be considered fit under the following conditions:

(a) Single circumferential lattice without holes of less than two clock hours in either or both eyes.

(b) Two circumferential lattices without holes each being less than one clock hour in extent in either or both eyes.

(c) Post laser delimitation single circumferential lattice, without holes/ flap tear, less than two clock hours extent in either or both eyes.

(d) Post laser delimitation two circumferential lattices, without holes /flap tear, each being less than one clock hour extent in either or both eyes.

(xxi) **Keratoconus:** Keratoconus is Unfit.

(c) **Visual Acuity/ Colour Vision**. The visual acuity and colour vision requirements are detailed in **Appendix 'C'** to this notification. Those who do not meet these requirements are to be rejected.

(d) **Myopia.** If there is a strong family history of Myopia, particularly if it is established that the visual defect is recent, if physical growth is still expected, or if the fundus appearance is suggestive of progressive myopia, even if the visual acuity is within the limit prescribed, the candidate should be declared unfit.

(e) **Refractive Surgeries.**Candidates who have undergone Keratorefractive Surgeries (Photo Refractive Keratotomy (PRK), Laser in-situ Keratomileusis (LASIK), Femto LASIK, SMILE or equivalent procedures) may be considered fit for commissioning in the Air Force in all branches. Residual refraction after such procedure should not be more than +/- 1.0 D Sph or Cyl for branches where correctable refractory errors are permitted. The following criteria must be satisfied prior to selecting such candidates:-

(i) Individuals with high refractive errors (>6D) prior to Keratorefractive Surgery are to be excluded.

(i) Keratorefractive Surgery should not have been carried out before the age of 20 years.

(ii) At least 12 months should have elapsed post uncomplicated stable Keratorefractive Surgery with no history or evidence of any complication.

(iii) The axial length of the eye should not be more than 26 mm as measured by IOL master.

(iv) The post Keratorefractive Surgery corneal thickness as measured by a corneal pachymeter should not be less than 450 microns.

(f) Radial Keratotomy (RK) surgery for correction of refractive errors is not permitted for any Air Force duties. Candidates having undergone cataract surgery with or without IOL implants will also be declared unfit.

(g) **OCULAR MUSCLE BALANCE**

(i) Individuals with manifest squint are not acceptable for commissioning. The assessment of latent squint or heterophoria in the case of aircrew will be mainly based on the assessment of the fusion capacity. A strong fusion sense ensures the maintenance of binocular vision in the face of stress and fatigue. Hence, it is the main criterion for acceptability.

(aa) **Convergence (as assessed on RAF rule)**

(aaa) Objective Convergence. Average is from 6.5 to 8 cm. It is poor at 10 cm and above.

(aab) Subjective Convergence (SC). This indicates the end point of binocular vision under the stress of convergence. If the subjective convergence is more than 10 cm beyond the limit of objective convergence, the fusion capacity is poor. This is specially so when the objective convergence is 10 cm and above.

(ab) **Accommodation.** In the case of myopes, accommodation should be assessed with corrective glasses in position. The acceptable values for accommodation in various age groups are given in Table 1.

Table 1 -Accommodation Values – Age wise

Age in Yrs	17-20	21-25	26-30	31-35	36-40	41-45
Accommodation (in cm)	10-11	11-12	12.5-13.5	14-16	16-18.5	18.5-27

(h). Ocular muscle balance is dynamic and varies with concentration, anxiety, fatigue, hypoxia, drugs and alcohol. The above tests should be considered together for the final assessment. For example, cases just beyond the maximum limits of the Maddox Rod test, but who show a good binocular response, a good objective convergence with little difference from subjective convergence, and full and rapid recovery on the cover tests may be accepted. On the other hand, cases well within Maddox Rod test limits, but who show little or no fusion capacity, incomplete or no recovery on the cover tests, and poor subjective convergence should be rejected. Standards for assessment of Ocular Muscle Balance are detailed in **Appendix 'C'** to notification.

(j) Any clinical findings in the media (cornea, lens, vitreous) or fundus, which is of pathological nature and likely to progress will be a cause for rejection. This examination will be done by slit lamp and ophthalmoscopy under mydriasis.

29. **HAEMOPOIETIC SYSTEM**

(a) History of easy fatiguability, general weakness, petechiae/ ecchymosis, bleeding from gums and alimentary tract, persistent bleeding after minor trauma and menorrhagia in case of females should be carefully elicited. All candidates should be examined for clinical evidence of pallor (anaemia), malnutrition, icterus, peripheral lymphadenopathy, purpura, petechiae/ ecchymoses and hepatosplenomegaly.

(b) In the event of laboratory confirmation of anaemia (<13g/dl in males and <11.5g/dl in females), further evaluation to ascertain type of anaemia and aetiology has to be carried out. This should include a complete haemogram (to include the PCV MCV, MCH, MCHC, TRBC, TWBC, DLC, Platelet count, reticulocyte count and ESR) and a peripheral blood smear. All the other tests to establish the aetiology will be carried out, as required. Ultrasonography of abdomen for gallstones, upper GI Endoscopy/ proctoscopy and hemoglobin electrophoresis etc. may be done, as indicated, and the fitness of the candidate, decided on the merit of each case.

(c) Candidates with mild microcytic hypochromic (Iron deficiency anaemia) or dimorphic anaemia (Hb < 10.5g/dl in females and < 11.5g/dl in males), in the first instance, may be made temporarily unfit for a period of 04 to 06 weeks followed by review thereafter. These candidates can be accepted, if the complete haemogram and PCV, peripheral smear results are within the normal range. Candidates with macrocytic/ megaloblastic anaemia will be assessed unfit.

(d) All candidates with evidence of hereditary haemolytic anaemias (due to red cell membrane defect or due to red cell enzyme deficiencies) and haemoglobinopathies (Sickle cell disease, Beta Thalassaemia: Major, Intermedia, Minor, Trait and Alpha Thalassaemia etc.) are to be considered unfit for service.

(e) In the presence of history of haemorrhage into the skin like ecchymosis/ petechiae, epistaxis, bleeding from gums and alimentary tract, persistent bleeding after minor trauma or lacerations/ tooth extraction or menorrhagia in females and any family history of haemophilia or other bleeding disorders a full evaluation will be carried out. These cases will not be acceptable for entry to service. All candidates with clinical evidence of purpura or evidence of thrombocytopenia are to be considered unfit for service. Cases of Purpura Simplex (simple easy bruising), a benign disorder seen in otherwise healthy women, may be accepted.

(f) Candidates with history of haemophilia, von Willebrand's disease, on evaluation, are to be declared unfit for service at entry level.

(g) **Monocytosis.** Absolute monocyte counts greater than 1000/cu mm or more than or equal to 10% of total WBC counts is to be deemed unfit.

(h) **Eosinophilia.** Absolute eosinophil counts greater than or equal to 500/cu mm is deemed unfit.

(i) Haemoglobin more than 16.5g/dL in males and more than 16g/dL in females will be considered as Polycythemia and deemed Unfit.

30. **ASSESSMENT OF WOMEN CANDIDATES**

History Detailed menstrual and obstetric history, in addition to general medical history, must be taken and recorded.If a history of menstrual, obstetric or pelvic abnormality is given; an opinion of gynaecologist is to be obtained.

(a) **CLINICAL EXAMINATION**

(i) **General Medical and Surgical Standards**

(aa) Any lump in the breast will be a cause for rejection. Cases of fibroadenoma breast after successful surgical removal may be considered fit with the opinion of a surgical specialist and a normal histopathological report.

(ab) Galactorrhoea will be cause for temporary unfitness. Fitness after investigation/ treatment may be considered based on merits of the case and opinion of the concerned specialist.

(ac) Amazia, Polymazia and Polythelia (Accessory nipple) will be considered unfit.

(b) **Gynaecological Examination**. The examination should cover external genitalia, hernial orifices and the perineum, any evidence of stress urinary incontinence or genital prolapsed outside introitus. All married candidates should be subjected to speculum examination for any prolapsed or growth on cervix or vagina. In unmarried candidates, speculum or per vaginal examination will not be carried out. Ultrasound scan of lower abdomen and pelvis is mandatory in all female candidates during the initial medical examination. Any abnormality of external genitalia will be considered on merits of each case.

(i) Following conditions are acceptable:

(aa) Congenital elongation of cervix which comes up to introitus.

(ab) Arcuate type of congenital uterine anomaly.

(ii) Following conditions will entail rejection of the lady candidates:

(aa) Primary or secondary amenorrhoea. Amenorrhoea without pregnancy will be investigated and fitness will be considered on merits after examination and investigation by gynaecologist.

(ab) Severe menorrhagia or/ and severe dysmenorrhoea.

(ac) Stress urinary incontinence.

(ad) Congenital elongation of cervix or complete prolapse which comes outside the introitus even after corrective surgery. (Complete prolapse of uterus will be a cause for rejection. Minor degree, after surgical correction, may be considered for fitness on merits.)

(ae) Acute or chronic pelvic infection, Endometriosis and Adenomyosis.

(af) Disorders of sexual differentiation.

(ag) Significant hirsutism especially with male pattern of hair growth is seen.

(iii) Any other gynaecological condition not covered above will be considered on merits of each case by gynecologist.

(c) **Pregnancy** Pregnancy would be cause for temporary rejection. The individual would be advised to report again to the hospital 24 weeks after an uncomplicated vaginal delivery. In case of an MTP/ Abortion the review will be carried out after a period of minimum four weeks and up to 12 weeks. However, in case of caesarean section delivery, lady the candidate would remain unfit for a period of 52 weeks. The individual would then be examined by the Gynaecologist and assessed regarding her fitness. In cases wherein, a time period of more than six months has elapsed, post her initial medical examination, she would be subjected to repeat complete medical examination as per the existing regulations.

(d) **<u>Ultrasonography of lower abdomen and pelvis for Women Candidates.</u>** This would be done as per existing orders

(i) **Fit**

(aa) Single small fibroid uterus (3 cm or less in diameter) without symptoms.

(ab) Unilocular clear ovarian cyst less than 6 cm in diameter.

(ac) Congenital elongation of cervix (which comes up to introitus).

(ad) Arcuate uterus type of congenital uterine anomaly.

(ae) Minimal fluid in Pouch of Douglas.

(ii) **Unfit**

(aa) Candidates with fluid in Pouch of Douglas with internal echoes.

(ab) Uterus. Absence of uterus or any congenital structural abnormality except Arcuate Utreus.

(ac) Fibroids

(aaa) Multiple fibroid more than 02 in number, with larger one >15 mm in size.

(aab) Single fibroid larger than 3 cm in size.

(aac) Any fibroid causing distortion of endometrial cavity.

(ad) Adenomyosis

(ae) Adnexa

(aaa) Simple ovarian cyst 06 cm or more in size.

(aab) Complex ovarian cyst of any size.

(aac) Endometriosis

(aad) Hydrosalpinx.

(iii) During Appeal Medical Board/ Review Medical Board unfit candidates will be subjected to specific investigations and detailed clinical examination. Fitness for specific conditions will be decided as given below:-

(aa) Fluid in POD with internal echoes will be assessed with TLC, DLC and C Reactive Protein. Senior Adviser (Obs and Gynae) to opine on fitness.

(ab) Endometrial thickness > 15 mm or residual echogenic shadows in endometrial cavity. Senior Adviser (Obs and Gynae) to opine on fitness.

(e). **<u>Medical Fitness after Laparoscopic Surgery or Laparotomy</u>**. Candidates reporting after undergoing cystectomy or myomectomy will be accepted as fit is she is asymptomatic, ultrasound pelvis is normal, histopathology report of removed tissue shows benign pathology and per operative findings are not suggestive of endometriosis. Fitness to be considered after laparoscopic surgery once the wound has healed fully. Candidate will be considered FIT after caesarean section and laparotomy after one year of the surgical procedure.

31. **DENTAL FITNESS STANDARDS**

(a) The examiner should enquire whether the candidate has any past history of major dental procedures or alterations. Significant past history of ulceration or infection of the tongue, gums or throat should be documented. History suggestive of premalignant lesions or pathologies that are prone for recurrence should be elicited.

(b) **Dental Standards**. The following dental standards are to be followed and candidates whose dental standard does not conform to the laid down standards will be rejected:-

(i) Candidate must have a minimum of 14 dental points and the following teeth must be present in the upper jaw in good functional opposition with the corresponding teeth in the lower jaw:-

(i) Any four of the six anterior

(ii) Any six of the ten posterior

(ii) Each incisor, canine 1st and 2nd premolar will have a value of one point provided their corresponding opposite teeth are present.

(iii) Each 1st and 2nd molar and well developed 3rd molar will have the value of two points, provided in good opposition to corresponding teeth in the opposing jaw.

(iv) In case 3rd molar is not well developed, it will have a value of one point only.

(v) When all the 16 teeth are present in the upper jaw and in good functional opposition to corresponding teeth in the lower jaw, the total value will be 20 or 22 points according to whether the 3rd molars are well developed or not.

(vi) All removable dental prosthesis will be removed during oral examination and not be awarded any dental points except in the case of ex-serviceman applying for re-enrolment, who will be awarded dental points for well fitting removable prostheses.

(c) **Extra oral examination**

(i) **Gross facial examination.** Presence of any gross asymmetry or soft/ hard tissue defects/ scars or if any incipient pathological condition of the jaw is suspected, it will be a cause of rejection.

(ii) **Functional examination**

(aa) Temporomandibular joint (TMJ). TMJs will be bilaterally palpated or tenderness and/or clicking. Candidates with symptomatic clicking and/or tenderness or dislocation of the TML on wide opening will be rejected.

(ab) Mouth Opening. A mouth opening of less than 30 mm measured at the incisal edges will be reason for rejection.

(d) **Guidelines for awarding dental points in special situations**

(i) **Dental caries.** Teeth with caries that have not been restored or teeth associated broken down crowns, pulp exposure, residual root stumps, teeth with abscesses and/or sinuses will not be counted for award of dental points.

(ii) **Restorations.** Teeth having restorations that appear to be improper/broken/discolored will not be awarded dental points. Teeth restored by use of inappropriate materials, temporary or fractured restorations with doubtful marginal integrity or peri-apical pathology will not be awarded dental points.

(iii) **Loose teeth.** Loose/mobile teeth with clinically demonstrable mobility will not be awarded dental points. Periodontally splinted teeth will not be counted for award of dental points.

(iv) **Retained deciduous teeth.** Retained deciduous teeth will not be awarded dental points.

(v) **Morphological defects.** Teeth with structural defects which compromise efficient mastication will not be awarded dental points.

(vi) **Periodontium**

(aa) The condition of the gums, of the teeth included for counting dental points, should be healthy, i.e. pink in colour, firm in consistency and firm in consistency and firmly resting against the necks of the teeth. Visible calculus should not be present.

(ab) Individual teeth with swollen, red or infected gums or those with visible calculus will not be awarded dental points.

(ac) Candidates with generalized calculus, extensive swollen and red gums, with or without exudates, shall be rejected.

(vii) **Malocclusion.** Candidates with malocclusion affecting masticatory efficiency and phonetics shall not be recruited. Teeth in open bite will not be awarded dental points as they are not considered to be in functional apposition. Candidates having an open bite, reverse overjet or any visible malocclusion will be rejected. However, if in the opinion of the dental officer, the malocclusion of teeth is not hampering efficient mastication, phonetics, maintenance of oral hygiene or general nutrition or performance of duties efficiently, then candidates will be declared FIT. The following criteria have to be considered in assessing malocclusion:

(aa) Edge to edge bite. Edge to edge bite will be considered as functional apposition.

(ab) Anterior Open Bite. Anterior open bite is to be taken as lack of functional opposition of involved teeth.

(ac) Cross bite. Teeth in cross bite may still be in functional occlusion and may be awarded points, if so.

(ad) Traumatic bite. Anterior teeth involved in a deep impinging bite which is causing traumatic indentations on the palate will not be counted for award of points.

(viii) **Hard and Soft tissues.** Soft tissues of cheek, lips, palate, tongue and sublingual region and maxilla/mandibular bony apparatus must be examined for any swelling, discoloration, ulcers, scars, white patches, sub mucous fibrosis etc. All potentially malignant lesions will be cause for rejection. Clinical diagnosis for sub mucous fibrosis with or without restriction of mouth opening will be a cause of rejection. Bony lesion(s) will be assessed for their pathological/physiological nature and commented upon accordingly. Any hard or soft tissue lesion will be a cause of rejection.

(ix) **Orthotic appliances.** Fixed orthodontics lingual retainers will not be considered as periodontal splints and teeth included in these retainers will be awarded points for dental fitness. Candidates wearing fixed or removable orthodontic appliances will be declared UNFIT.

(x) __**Dental implants.**__ When an implant supported crown replaces a single missing tooth, the prosthesis may be awarded dental points as for natural teeth provided the prosthesis is in functional apposition and the integrity of the implant is confirmed.

(xi) __**Fixed Partial Dentures (FPD) / Implant supported FPDs.**__ FPDs will be assessed clinically and radiologically for firmness, functional apposition to opposing teeth and periodontal health of the abutments. If all parameters are found satisfactory, dental points will be awarded as follows:-

(aa) __Tooth supported FPDs__

(aaa) __Prosthesis, 3 units.__ Dental points will be awarded for the abutments and the pontic.

(aab) __Prosthesis, more than 3 units.__ Dental points will be awarded only to the abutments. No points will be awarded for the pontics.

(aac) __Cantilever FDPs.__ Dental points will be awarded only to the abutments.

(ab) __Implant supported FPDs__

(aaa) Prosthesis, 3 units. Dental points will be awarded for the natural teeth, implant and the pontic.

(aab) Prosthesis, more than 3 units. Dental points will be awarded only to the natural teeth. No points are to be awarded for pontics and implant(s).

(aac) __Two unit cantilever FPDs.__ Dental points will be awarded only to the implants.

(xii) A maximum of 02 implants will be permitted in a candidate. No points will be given for implants/implant supported prosthesis in excess of the 02 permissible implants. In the case of a candidate having 03 more implants/implant supported prosthesis, which 02 are to be awarded marks will be based on the clinical judgment of the dental officer.

(e) __**The following will be criteria for declaring a candidate UNFIT**__

(i) __**Oral hygiene.**__Poor oral health status in the form of gross visible calculus, periodontal pockets and/or bleeding from gums will render candidate UNFIT.

(ii) __**Candidates reporting post maxillo-facial surgery/ maxillofacial trauma.**__Candidates who undergo cosmetic or post-traumatic maxillofacial surgery/ trauma will be UNFIT for at least 24 weeks from the date of surgery/ injury whichever is later. After this period, if there is no residual deformity or functional deficit, they will be assessed as per the laid down criteria.

(iii) Candidate with dental arches affected by advanced stage of generalized active lesions of pyorrhoea, acute ulcerative gingivitis, and gross abnormality of the teeth or jaws or with numerous caries or septic teeth will be rejected.

32. __**Note:**__ In addition to the broad guidelines enumerated in the notification, medical standards for the candidates will be guided by provisions in **IAP 4303 5th edition** and DGAFMS policy on “**Common medical standards for officer entry into Armed Forces**”, as amended from time to time.

Appendix-B
[Refers to Para 13 (a)]

HEIGHT AND WEIGHT PARAMETERS FOR AIR FORCE COMMON ADMISSION ONLINE TEST (AFCAT- 02/2023) FOR FLYING BRANCH AND GROUND DUTIES (TECHNICAL AND NON-TECHNICAL)/METEOROLOGY ENTRY FOR COURSES COMMENCING IN JULY 2024
CANDIDATES ON ENTRY

Height and Weight Standards for Female

Height in cm	Weight in Kg	
	20-25 years	26-30 years
148	43	46
149	44	47
150	45	48
151	45	48
152	46	49
153	47	50
154	47	50
155	48	51
156	49	52
157	49	53
158	50	53
159	51	54
160	51	55
161	52	55
162	52	56
163	53	57
164	54	57
165	54	58
166	55	59
167	56	60
168	56	60
169	57	61
170	58	62
171	58	62
172	59	63
173	59	64
174	60	64
175	61	65
176	61	66
177	62	67
178	63	67
SD	5	5

Height and Weight Standards for Male

Height in cm	Age Range (Years)				
	15-17	**18-22**	**23-27**	**28-32**	**33-37**
152	46	47	50	54	54
153	47	47	51	55	55
154	47	48	51	56	56
155	48	49	52	56	56
156	48	49	53	57	57
157	49	50	54	58	58
158	49	50	54	58	58
159	50	51	55	59	59
160	51	52	56	59	60
161	51	52	56	60	60
162	52	53	57	61	61
163	52	54	58	61	62
164	53	54	59	62	63
165	53	55	59	63	63
166	54	56	60	63	64
167	54	56	61	64	65
168	55	57	61	65	65
169	55	57	62	65	66
170	56	58	63	66	67
171	56	59	64	66	68
172	57	59	64	67	68
173	58	60	65	68	69
174	58	61	66	68	70
175	59	61	66	69	71
176	59	62	67	70	71
177	60	62	68	70	72
178	60	63	69	71	73
179	61	64	69	72	73
180	61	64	70	72	74
181	62	65	71	73	75
182	62	66	72	74	76
183	63	66	72	74	76
184	64	67	73	75	77
185	64	68	74	75	78
186	65	68	74	76	78
187	65	69	75	77	79
188	66	69	76	77	80
189	66	70	77	78	81
190	67	71	77	79	81
191	67	71	78	79	82
192	68	72	79	80	82
193	68	73	79	81	83
SD	6.0	6.3	7.1	6.6	6.9

Appendix 'C'
[Refers to Para 25 (c)]

VISUAL STANDARDS FOR AIR FORCE ADMISSION ONLINE TEST (AFCAT-02/2023) FOR FLYING BRANCH AND GROUND DUTIES (TECHNICAL AND NON-TECHNICAL)/NCC SPECIAL ENTRY/METEOROLOTY ENTRY FOR COURSES COMMENCING IN JULY 2024 CANDIDATES ON ENTRY

Sl No.	Med Cat	Branch	Maximum Limits of Refractive Error	Visual Acuity Errors	Colour Vision
1	A1G1	F (P) including WSOs, Flying branch cadets at NDA and AFA	**Hypermetropia**: + 1.5D Sph **Manifest Myopia**: Nil **Retinoscopic Myopia**: Nil **Astigmatism**: + 0.75D Cyl (within + 1.5 D Max)	6/6 in one eye and 6/9 in other, correctable to 6/6 only for Hypermetropia	CP-I
2	A4G1	Adm/ WS	**Hypermetropia**: + 3.5D Sph **Myopia**: - 3.50D Sph **Astigmatism**: $\pm$ 2.50 D Cyl	Correctable to 6/6 in each eye. Wearing of glasses will be compulsory when visual acuity is below 6/6	CP-II
3	A4G1	AE(M) AE(L)	**Hypermetropia**: + 3.5 D Sph **Myopia**: -3.50 D Sph **Astigmatism**: $\pm$ 2.50 D Cyl	Corrected visual acuity should be 6/9 in each eye. Wearing of glasses will be compulsory when advised	CP-II
4	A4G1	Met	**Hypermetropia**: + 3.5 D Sph **Myopia**: -3.50 D Sph **Astigmatism**: $\pm$ 2.50 D Cyl	Corrected visual acuity should be 6/6 in the better eye and 6/18 in the worse eye. Wearing of Glasses will be compulsory.	CP-II
5	A4G1	Accts/ Lgs/Edn	**Hypermetropia**: + 3.5 D Sph **Myopia**: -3.50 D Sph **Astigmatism**: $\pm$ 2.50 D Cyl	Corrected visual acuity should be 6/6 in the better eye and 6/18 in the worse eye. Wearing of Glasses will be compulsory.	CP-III

Note 1. Ocular muscle balance for personnel covered in Sl. Nos. 1 and 2 should conform to Appendix C to this Chapter.

Note 2. Visual standards of Air Wing Cadets at NDA and Flt Cdts of F (P) at AFA should conform to A1G1 F (P) standard (S1. No. 1 of Appendix B)

Note 3. The Sph correction factors mentioned above will be inclusive of the specified astigmatic correction factor. A minimum correction factor upto the specified visual acuity standard can be accepted

STANDARD OF OCULAR MUSCLE BALANCE FOR FLYING DUTIES

Sl. No.	Test	Fit	Temporary Unfit	Permanently Unfit
1	Maddox Rod Test at 6 meters	Exo-6 Prism D Eso -6 Prism D Hyper-1 prism D Hypo- 1 prism D	Exo- Greater than 6 prism D Eso- Greater than 6 prism D Hyper- Greater than 1 prism D Hypo- Greater than 1 prism D	Uniocular suppression Hyper/ Hypo more than 2 prism D
2	Maddox Rod Test at 33 cm	Exo-16 Prism D Eso- 6 Prism D Hyper- 1 Prism D Hypo- 1 Prism D	Exo - Greater than 16 prism D Eso - Greater than 6 prism D Hyper Greater than 1 prism D Hypo Greater than 1 prism D	Uniocular suppression Hyper/ Hypo more than 2 prism D
3	Hand held Stereoscope	All of BSV grades	Poor Fusional reserves	Absence of SMP, fusion Stereopsis
4	Convergence	Up to 10 cm	Up to 15 cm with effort	Greater than 15 cm with effort
5	Cover test for Distance and Near	Latent divergence / convergence recovery rapid and complete	Compensated heterophoria/ trophia likely to improve with treatment / persisting even after treatment	Compensated heterophoria

Appendix 'D'
[Refers to para 25 (b)(xii)]

CERTIFICATE REGARDING NIGHT BLINDNESS

Name with initials____ Batch No. ___________________________ Chest No __________________________

I hereby certify that to the best of my knowledge, there has not been any case of night blindness in our family, and I do not suffer from it.

Date: (Signature of the candidate)

Countersigned by

(Name of Medical Officer)