MEDICAL STANDARDS FOR FLYING BRANCH AND GROUND DUTY (TECHNICAL & NON-TECHNICAL) BRANCHES IN INDIAN AIRFORCE THROUGH AFCAT/CDSE/NCC SPECIAL ENTRY/NDA

General Instructions

1. In this section, standardized guidelines for the physical assessment of candidates for commissioning through CDSE/AFCAT/NDA or any other entries into flying/ground duty branches in the IAF are elaborated. 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 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 National Defence Academy (NDA)/Air Force Academy (AFA)/ Air Force Technical College (AFTC) or other training centers (for non-aircrew entries) prior to commissioning. 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.**

4. **Laboratory and Radiological Investigations for Special Medical Board.**

4.1. Hematology: Complete Haemogram (Hemoglobin estimation, Total Leucocyte Count with Differential Leucocyte Count, Platelet Count).

4.2. Hb Electrophoresis will be carried out in in cases of anaemia to exclude haemoglobinopathies or in candidates as per respective service requirement.

4.3. Biochemistry: Liver function test (LFT), Renal Function Test (RFT), Blood glucose estimation (Sugar Fasting). *For Candidates joining Aviation Cadre only (fasting and two hours after 75 g anhydrous glucose or 82.5 g glucose monohydrate) and HbA1c estimation, will also be carried out before acceptance. Results of the blood sugar and Glycosylated Hb (HbA1c) estimation will be endorsed in the initial medical examination.*

4.4. Urine Routine Examination (RE) and Microscopic Examination (ME).

4.5. ECG.

4.6. Radiology: -

4.6.1. Radiograph Chest PA view in all candidates.

4.6.2. Radiograph Lumbosacral Spine: AP and Lateral views and Cervical Spine - AP and Lateral views in all candidates.

4.6.3. In addition to the above radiographs, Dorsal Spine - AP and Lateral views will be carried out in all candidates being assessed **for flying duties.**

4.6.4. USG Abdomen and Pelvis.

5. Any other additional investigation deemed necessary will be conducted during the Appeal stage.

General Physical Assessment

6. Every candidate, to be fit for the Army, Navy & 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.

7. **Sequelae of Fractures/ Old Injuries and Surgical Interventions**. 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:-

7.1. **Spine Injuries**. Cases of old fractures of spine, any residual deformity of spine or compression of a vertebra will be cause for rejection - Unfit.

7.2. **Nerve Injuries**. Injuries involving the trunks of the larger nerves, resulting in loss of function, or neuroma formation, which causes pain or significant tingling indicate unsuitability for employment in AF – Unfit.

7.3. **Keloids**. The presence of keloid will be a cause for rejection. - **Unfit**

7.4. **Surgical Scars**. Minor well-healed scars for eg, 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 must be considered unfit.

8. **Birth Marks**. Abnormal pigmentation in the form of hypo or hyperpigmentation is not acceptable. Localized, congenital mole/ naevus, however, is acceptable provided its size is less than 10 cm. Congenital multiple naevi or vascular tumors that interfere with function or are exposed to constant irritation are not acceptable.

9. **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. **Lips** - any growth, ulceration, cracks/ fissures in the corner of mouth (angular stomatitis) are abnormal and not acceptable.

11. **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.

12. **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.

13. **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 (refer paragraph 6 of Chapter 5 of Section II). Operation involving the cranial vault with any residual bony defect will be unfit. Major thoracic operations will make the candidate unfit.

Measurements and Physique

14. **Chest Shape and Circumference**. 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 acceptable chest circumference in male candidates for commissioning is 77 cm. The chest expansion must be at least 05 cm for all categories of 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 01 cm.

15. **Height**.

15.1. **Ground Duty Branches**. The minimum height for entry into ground duty branches is as follows: -

15.1.1. Male – 157 cm.
15.1.2. Female - 152 cm.

15.2. **Relaxation in Height Criteria**.

15.2.1. **Male Cadets**. The minimum height required for entry into the Armed Forces for male cadets is 157 cm or as decided by the respective recruiting agency. In case of a candidate being less than 18 years at the time of examination, an allowance for growth of 02 cm will be made for candidates.

15.2.2. **Female Cadets**. The minimum height required for entry into the Armed Forces for female cadets is 152 cm. In case of a candidate being less than 18 years at the time of examination, an allowance for growth of 02 cm will be made for candidates.

15.2.3. Relaxation in height is permissible to candidates holding domicile of areas as mentioned below and talented sports candidates as follows:-

Category	Minimum Height for male officer entry	Minimum Height for female officer entry
Tribals from Ladakh Region	155 Cm	150 Cm
Andaman & Nicobar, Lakshadweep and Minicoy Islands	155 Cm	150 Cm
Gorkhas, Nepali, Assamese, Garhwal, Kumaon and Uttarakhand	152 Cm	147 Cm
Bhutan, Sikkim & North East Region	152 Cm	147 Cm
Extra talented sports candidates	155 Cm	-

15.3. **Flying Duty Branches**. The minimum height (both male and female) for entry into flying duty branches is as follows: -

15.3.1. Pilots, Flight Test Engineers (FTE) and WSO of Su 30 MKI - **162 cm**.

15.3.2. Officers and airmen who apply for aircrew duties, other than F(P), FTE duties and WSO of Su-30 MKI - **157 cm**.

16. **Sitting Height, Leg Length and Thigh Length**. Acceptable measurements of leg length, thigh length and sitting height for such aircrew will be as under: -

16.1.	**Sitting height**	Minimum	-	81.5 cm
		Maximum	-	96.0 cm
16.2.	**Leg Length**	Minimum	-	99.0 cm
		Maximum	-	120.0 cm
16.3.	**Thigh Length**	Maximum	-	64.0 cm

17. **Body Weight Parameters.** The acceptable weight range for candidates is given at Appendix 'A' (Male candidates) & Appendix 'B' (Female candidates) to these guidelines. Candidates outside the given weight range for their age and height will not be acceptable.

Appendix 'A'
(Refer para 15 &17)

WEIGHT FOR HEIGHT CHART: MALES (AT ENTRY)

		Age at last birthday Below 20 yrs	**Age at last birthday 20 to 25 yrs**	**Age at last birthday Above 25 yrs**
152	40	53	55	58
153	40	54	56	59
154	40	55	57	59
155	41	55	58	60
156	41	56	58	61
157	42	57	59	62
158	42	57	60	62
159	43	58	61	63
160	44	59	61	64
161	44	60	62	65
162	45	60	63	66
163	45	61	64	66
164	46	62	65	67
165	46	63	65	68
166	47	63	66	69
167	47	64	67	70
168	48	65	68	71
169	49	66	69	71
170	49	66	69	72
171	50	67	70	73
172	50	68	71	74
173	51	69	72	75
174	51	70	73	76
175	52	70	74	77
176	53	71	74	77
177	53	72	75	78
178	54	73	76	79
179	54	74	77	80
180	55	75	78	81

181	56	75	79	82
182	56	76	79	83
183	57	77	80	84
184	58	78	81	85
185	58	79	82	86
186	59	80	83	86
187	59	80	84	87
188	60	81	85	88
189	61	82	86	89
190	61	83	87	90
191	62	84	88	91
192	63	85	88	92
193	63	86	89	93
194	64	87	90	94
195	65	87	91	95
196	65	88	92	96
197	66	89	93	97
198	67	90	94	98
199	67	91	95	99
200	68	92	96	100

Appendix B
(Refer para 15 & 17)

WEIGHT FOR HEIGHT CHART: FEMALES (AT ENTRY)

(cm)	Minimum Weight (Kg)	Maximum Weight (Kg)		
		Age at last birthday Below 20 yrs	Age at last birthday 20 to 25 yrs	Age at last birthday Above 25 yrs
147	37	45	48	51
148	37	46	48	51
149	37	47	49	52
150	37	47	50	53
151	37	48	50	54
152	37	49	51	54
153	37	49	51	55
154	38	50	52	56
155	38	50	53	56
156	39	51	54	57
157	39	52	54	58
158	40	52	55	59
159	40	53	56	59
160	41	54	56	60
161	41	54	57	61
162	42	55	58	62
163	43	56	58	62
164	43	56	59	63
165	44	57	60	64
166	44	58	61	65
167	45	59	61	66
168	45	59	62	66
169	46	60	63	67
170	46	61	64	68
171	47	61	64	69
172	47	62	65	70
173	48	63	66	70
174	48	64	67	71

175	49	64	67	72
176	50	65	68	73
177	50	66	69	74
178	51	67	70	74
179	51	67	70	75
180	52	68	71	76
181	52	69	72	77
182	53	70	73	78
183	54	70	74	79
184	54	71	74	80
185	55	72	75	80
186	55	73	76	81
187	56	73	77	82
188	57	74	78	83
189	57	75	79	84
190	58	76	79	85
191	58	77	80	86
192	59	77	81	87
193	60	78	82	88
194	60	79	83	88
195	61	80	84	89

Cardiovascular System

18. **Pulse**. 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. Any other abnormality of pulse in terms of volume, character, regularity, symmetry will need evaluation.

19. **Blood pressure**. An individual with persistently elevated systolic blood pressure greater than or equal to 140 mmHg and/ or diastolic blood pressure greater than or equal to 90 mm Hg shall be rejected. All such candidates will undergo 24 hours ambulatory BP monitoring and evaluated by a cardiologist at AMB.

20. **Cardiac Murmurs**. Cardiac murmurs may be a marker of organic cardiac disease. All diastolic murmurs and most systolic murmurs are considered pathological. However, sometimes young males may have a soft ejection systolic murmur at pulmonary area. Presence of any cardiac murmur may be made unfit, which will need further evaluation using ECG, X-Ray chest, 2D ECHO by cardiologist for ruling out any organic disease.

21. **ECG**. All ECG abnormalities will be made unfit. At the time of SMB/ Appeal Medical Boards for recruits, ECG will be opined by medical specialist. In case of sinus tachycardia, a repeat ECG may be done after rest to check if the tachycardia (due to stress/ exertion) has resolved. Benign ECG abnormalities like incomplete RBBB, T wave inversion in lead III, T inversion in V1 to 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 these cases to rule out any underlying structural heart disease and opinion of Cardiologist should be obtained. All AV malformations will be a ground for rejection.

22. **Congenital Cardiac Anomalies**. All congenital cardiac anomalies will be declared unfit.

23. **Cardiac Surgery and Interventions**. Candidates with history of cardiac surgery/ coronary angioplasty or stenting, percutaneous repair of congenital anomalies, other intervention in the past will be considered unfit.

Respiratory System

24. **Pulmonary Tuberculosis**. Any residual scarring in pulmonary parenchyma or pleura, as evidenced by a demonstrable opacity on chest radiograph will be a ground for rejection. They will be subjected to detailed evaluation with appropriate investigations at the time of appeal by pulmonologist/ medical specialist. Old treated cases with no significant residual abnormality can be accepted, if the diagnosis and treatment was completed more than two years earlier.

25. **Pleurisy with Effusion**. Any evidence of pleural thickening will be a cause for rejection. At the time of appeal, these cases will be subjected to detailed evaluation with appropriate investigations by pulmonologist/ medical specialist.

26. **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 and will be subjected to detailed evaluation with appropriate investigations at the time of appeal by pulmonologist/ medical specialist.

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

28. **Radiographs of the Chest**. Definite radiological evidence of disease of the lungs, mediastinum and pleurae are criteria for declaring the candidate unfit.

29. **Thoracic Surgery**. Candidate with history of any major surgery of the thorax will be considered unfit.

Gastrointestinal System

30. **Head to Toe Examination**. Presence of any signs 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.

31. **Gastro-Duodenal Disabilities**. Any past surgical procedure involving partial or total loss of an organ (other than vestigial organs/ gall bladder) will entail rejection.

32. **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 active hepatitis or any other form of jaundice will be rejected. In case of history of hepatitis, candidates can be declared fit after a minimum period of 06 months has elapsed from the onset, provided there is full clinical recovery. History of recurrent jaundice and hyperbilirubinemia of any nature is unfit except for Unconjugated Hyperbilirubinemia where genetic studies confirm Gilbert"s Syndrome as the etiological factor meeting with following criteria of : -

32.1. Unconjugated Hyperbilirubinemia with total serum bilirubin <3 mg/ dl.

32.2. Normal transaminase, PT/ INR and albumin negative Anti HCV and HBsAg.

32.3. No anomaly on PBS, reticulocyte, lactate dehydrogenase.

32.4. (LDH), Vit B12 and Hb electrophoresis.

32.5. Normal USG and FIBROSCAN.

Note: - During AMB, genetic testing of UGT1A1 will be carried out for candidates with conjugated hyperbilirubinemia, at a certified private laboratory. Blood samples for the same will be drawn at the hospital and handed over to the representative from the laboratory; **cost of testing shall be borne by the candidate**. It is to be ensured that the collection of samples is to be carried out within the premises of the hospital in order to ensure authenticity and veracity of the reports.

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

34. **Anterior Abdominal Wall Hernia Including Femoral Hernia**

34.1. **Fit**. After 24 weeks of surgery (open as well as laparoscopic) provided there is no recurrence or post-op complications.

34.2. **Unfit**

34.2.1. All current or operated cases of incisional hernia.

34.2.2. All cases of uncorrected anterior abdominal wall hernia.

34.3 **Inguinal Hernia**

34.3.1. **Fit**. After 24 weeks of hernia repair surgery (open as well as laparoscopic) provided there is no recurrence or post-op complications.

34.3.2. **Unfit.** All cases of uncorrected inguinal hernia.

35. **Abdominal Surgery**. A candidate with well-healed scar post conventional abdominal surgery {except appendectomy through right iliac fossa incision, refer para 9 of Chapter 5 of Section II}, will be considered fit after 24 weeks 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.

36. **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.

36.1. **Fit**

36.1.1. After rectal surgery for polyps, hemorrhoids, fissure, fistula, ulcer or pilonidal sinus, provided there is no residual/ recurrent disease.

36.1.2. Anal Fissure, Hemorrhoids: After 12 weeks of surgery.

36.1.3. Pilonidal Sinus: After 12 weeks of surgery.

36.2. **Unfit**

36.2.1. Rectal prolapse even after surgical correction.

36.2.2. Active anal fissure/ External Skin tags.

36.2.3. Haemorrhoids (external or internal).

36.2.4. Anal Fistula.

36.2.5. Anal or rectal polyp.

36.2.6. Anal stricture.

36.2.7. Fecal incontinence.

37. **Radiological investigations for Liver.** USG will be carried out for all cadets/ officers" entry. SOL liver will be further investigated with CECT abdomen, LFT and Hydatid serology.

37.1. **Liver**

37.1.1. **Fit**

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

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

37.1.1.3. **Hepatic Calcification**

37.1.1.3.1. Solitary calcification $\leq$ 3 cm or Multiple pine point or small calcifications up to 5 in number and not involving more than 2 contiguous

segments of liver. Cluster with total diameter not exceeding 3 cm along with no symptoms (Pain, Fever, Wt loss)

37.1.1.3.2. No history/ features of TB, parasitic infections, or chronic liver disease.

37.1.1.3.3. No other organ involvement (eg lung/ Spleen calcifications).

37.1.1.3.4. Benign imaging features (smooth, well-defined, no mass effect).

37.1.1.3.5. Normal Serum Calcium, AFP, Serum Calcium, IGRA and Hydatid serology and any other clinically relevant test as per Physician discretion.

37.1.1.4. Hepatic Hemangioma:

37.1.1.4.1. Solitary Hemangioma in liver upto size of $\leq$ 2.5 cm along with normal echotexture of liver and normal values of PT/ INR, Platelets, Alpha Feto Protein and PIVKA or DCP in select cases.

37.1.2. **Unfit**

37.1.2.1. Hepatomegaly more than 15 cm in mid-clavicular line.

37.1.2.2. Fatty liver.

37.1.2.3. Grade 1 Fatty liver with abnormal LFT.

37.1.2.4. Grade 2 and 3 Fatty Liver.

37.1.2.5. **Hepatic Calcification**:

37.1.2.5.1. Solitary size > 3 cm.

37.1.2.5.2. Multiple Calcifications or cluster size >3 cm.

37.1.2.5.3. Calcification within a mass (irregular,enhancing, or necrotic appearance).

37.1.2.5.4. Active Cystic lesion with wall/ daughter cyst calcifications with positive hydatid serology).

37.1.2.5.5. Associated findings (eg liver abscess, biliary obstruction, vascular aneurysm).

37.1.2.5.6. Active TB/ Fungal infection (eg lung/ spleen calcifications + symptoms)

37.1.2.5.7. Abnormal Serum Calcium levels.

37.1.2.5.8. Relevant laboratory tests to be done on case-to-case basis as per Physician discretion.

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

37.1.2.7. Multiple hepatic cysts of any size.

37.1.2.8. Portal vein thrombosis.

37.1.2.9. Evidence of portal hypertension (Portal Vein >13 mm, collaterals, ascites).

37.1.2.10. Hepatic Hemangioma:

37.1.2.10.1. Hemangioma greater than 2.5 cm.

37.1.2.10.2. Multiple Hemangiomas.

37.1.2.10.3. Atypical Hemangioma (Radiological diagnosis on CT Scan) of any size.

37.1.2.10.4. Subcapsular Hemangioma of any size or number.

37.2. **Gall Bladder**

37.2.1. **Fit**

37.2.1.1. Normal echo-anatomy of the gall bladder.

37.2.1.2. **Post Laparoscopic Cholecystectomy**. After 04 weeks, provided LFT and histopathology are within normal limits.

37.2.1.3. **Post Open Cholecystectomy**. After 24 weeks, provided LFT and histopathology are within normal limits and in the absence of incisional hernia as confirmed on USG Abdomen.

37.2.1.4. **Congenital Agenesis of Gall Bladder**: Will be considered fit in the absence of any other abnormality of the biliary tract. MRCP will be done for all such cases.

37.2.2. **Unfit**

37.2.2.1. Cholelithiasis or biliary sludge.

37.2.2.2. Choledocholithiasis.

37.2.2.3 Polyp of any size and number.

37.2.2.4. Choledochal cyst.

37.2.2.5. Gall bladder mass.

37.2.2.6. Gall bladder wall thickness > 05 mm.

37.2.2.7. Septate gall bladder.

37.2.2.8. Persistently contracted gall bladder on repeat USG.

37.2.2.9. Incomplete Cholecystectomy.

37.2.3. **Non-visualized Gall Bladder on USG**. Will be considered unfit. They will be considered fit during appeal, if agenesis of gall bladder is confirmed on Magnetic Resonance Cholangiopancreatography (MRCP), in the absence of any other abnormality of the biliary tract.

37.3. **Splenic Calcification and other conditions**

37.3.1. **Fit**

37.3.1.1. Solitary calcification $\leq$ 2 cm or Multiple with total size not exceeding 2 cm along with No symptoms (pain, fever, weight loss)

37.3.1.2. No history/ features of TB, parasitic infections, or chronic liver disease.

37.3.1.3. No other organ involvement (eg lung/ liver calcifications)

37.3.1.4. Benign imaging features (smooth, well-defined, no mass effect).

37.3.1.5. Normal IGRA, Hb electrophoresis, Vasculitic work up and Hydatid serology and any other clinically relevant test as per Physician discretion.

37.3.2. **Unfit**

37.3.2.1. Solitary size > 2 cm.

37.3.2.2. Multiple calcifications or cluster size > 2 cm.

37.3.2.3. Calcifications within a mass (irregular, enhancing, or necrotic appearances).

37.3.2.4. Active Cystic lesion with wall/ daughter cyst calcifications with positive hydatid serology).

37.3.2.5. Associated findings (eg splenic abscess, biliary obstruction, vascular aneurysm)

37.3.2.6. Active TD/ Fungal infection.

37.3.2.7. Relevant laboratory tests to be done on case-to case basis as per Physician discretion.

37.3.2.7. Splenic hemangioma.

37.3.2.8. Spleen size >13 cms

37.4. **Pancreas**

37.4.1. **Unfit**

37.4.1.1. Any structural abnormality.

37.4.1.2. Space Occupying Lesion/ Mass lesion.

37.4.1.3. Features of Chronic Pancreatitis (calcification, ductal abnormality, atrophy).

37.5. **Peritoneal Cavity**

37.5.1. **Unfit**

37.5.1.1. Ascites.

37.5.1.2. Solitary mesenteric or retroperitoneal lymph node > 01 cm. (Single retroperitoneal LN < 01 cm and normal in architecture may be considered fit).

37.5.1.3. Two or more lymph nodes of any size.

37.5.1.4. Any mass or cyst.

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

38. **Appendicectomy**.

38.1. **Laparoscopic Appendicectomy** will be assessed for post-operative fitness after a minimum period of **04 weeks**.

38.2. **Open Appendicectomy (Muscle split approach)**. Open appendicectomy through iliac fossa incision only will be assessed for post-op fitness after a minimum of 12 weeks.

38.3. Open appendicectomy with muscle cut approach will be assessed after 06 months of post-op.

38.4. Candidates will be considered fit, if:-

38.4.1. Wound has healed well.

38.4.2. Scar is supple and non-tender.

38.4.3. Histo-pathological report of acute appendicitis is available.

38.4.4. USG confirmation of absence of surgical site incisional hernia.

Urogenital System

39. The fitness criteria to be followed are as follows: -

39.1. **Undescended testis (UDT)/ Orchidectomy**

39.1.1. **Unfit**

39.1.1.1. If the testis cannot be palpated (unilateral or bilateral) even after examination of the candidate in squatting position.

39.1.1.2. Bilateral orchidectomy due to any cause such as trauma, torsion or infection is unfit.

39.1.1.3. Any abnormal position of testis (unilateral or bilateral) is unfit.

39.1.2. **Fit**

39.1.2.1. Operatively corrected UDT at least 04 weeks after surgery, provided after surgical correction, the testis is normal in location and the wound has healed well.

39.1.2.2. Unilateral orchidectomy for benign cause, provided other testis is normal in size, fixation and location.

39.2. **Atrophic Testis**

39.2.1. **Unfit**. Bilateral atrophied testis.

39.2.1. **Fit**. Unilateral atrophic testis for benign cause, provided other testis is normal in size, fixation and location.

39.3. **Varicocele**

39.3.1. **Unfit**. All grades of current varicocele.

39.3.2. **Fit**. Post-operative cases of varicocele with no residual varicocele and no post-op complications or testicular atrophy after 08 weeks of surgery.

39.4. **Hydrocele**

39.4.1. **Unfit** Current hydrocele on any side.

39.4.2. **Fit**. Operated cases of hydrocele after 08 weeks of surgery, if there are no post-op complications and wound has healed well.

39.5. **Epididymal Cyst/ Mass, Spermatocele**

39.5.1. **Unfit**. Current presence of cyst/ mass.

39.5.2. **Fit**. Post-operative cases after 08 weeks of surgery, if well healed cases with no recurrence and only when benign on histopathology report.

39.6. **Epididymitis/ Orchitis**

39.6.1. **Unfit**. Presence of current orchitis or epididymitis/ tuberculosis.

39.6.2. **Fit**. After treatment, provided the condition has resolved completely.

39.7. **Epispadias/ Hypospadias**

39.7.1. **Unfit**. All are unfit, except glanular variety of hypospadias and epispadias, which is acceptable.

39.7.2. **Fit**. Post-operative cases at least 08 weeks after successful surgery, provided recovery is complete and there are no complications.

39.8. **Penile Amputation**. Any amputation will make the candidate unfit.

39.9. **Phimosis**

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

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

39.10. **Meatal Stenosis**

39.10.1. **Unfit**. Current disease, if small enough to interfere with voiding.

39.10.2. **Fit**. Mild disease not interfering with voiding and postoperative cases after a period of 04 weeks of surgery with adequately healed wound and no post op complications.

39.11. **Stricture Urethra, Urethral Fistula**. Any history of current cases or post-op cases are unfit.

39.12. **Sex Reassignment Surgery/ Intersex Condition**. Unfit

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

39.14. **Renal Transplant Recipients**. Unfit.

39.15. **Urachal Cyst**. Can be assessed for fitness after a post - op duration of 08 weeks. To be declared fit in the absence of any remnant.

39.16. Cases of Bladder diverticulum will be declared as Unfit.

40. **Urine Examination**

40.1. **Proteinuria**. Any proteinuria on Urine RE examination will be a cause for rejection. A detailed 24-hour urine protein examination may be done in cases of proteinuria, any proteinuria >300mg is considered unfit and will require detailed evaluation (urine examination, ultrasound) to rule out physiological/ pathological causes, which may be advised to the candidate.

40.2. **Glycosuria**. An occasional glycosuria may occur in physiological conditions, but recurrent or persistent glycosuria may occur due to pathological conditions like renal tubular disorders or diabetes and may be rejected.

40.3. **Urinary Infections**. Present evidence of clinical or radiological or laboratory evidence of urinary tract infection will entail rejection.

40.4. **Haematuria**. Candidates with microscopic or gross Haematuria or past history of Haematuria will be rejected. In cases of hematuria in women candidates, history of menstruation at the time of urine examination may be obtained. If so, a repeat urine examination may be performed at least 4-5 days after last menses. They will be subjected to full renal investigation at the time of appeal.

41. **Glomerulonephritis**. Any evidence of present or past glomerulonephritis is a ground for rejection, as they are more prone to kidney disease in future. Even, cases of treated and recovered glomerular disease are unfit. However, cases of post infective glomerulonephritis (post streptococcal glomerulonephritis) with complete recovery and no recurrence for > 2 years may be accepted, only after nephrologist clearance, in case of no residual renal anomaly.

42. **Renal Calculi**. Irrespective of size, numbers, obstructive or non-obstructive, history or radiological evidence of renal calculi or concretions will render a candidate unfit. All cases

detected to have Renal Calculi will be investigated with NCCT for confirmation of the diagnosis at SMB centre itself.

43. **Chronic Kidney Disease**. Any persistent (>3months) structural or functional abnormality of the kidney as detected during clinical examination, urine examination, RFT, or ultrasonography, qualifies as chronic kidney disease, and is considered unfit. Even in case of normal investigations, in case the kidneys appear shrunken on ultrasound (less than 8cm of either side), it qualifies for rejection.

44. **Sexual Transmitted Diseases and Human Immuno-Deficiency Virus (HIV)**. Any evidence of Sexually Transmitted Diseases and HIV will entail rejection.

45. **Ultrasonography of the Abdomen and Pelvis- Urogenital System**

45.1. **Kidneys, Ureters Urinary Bladder and Prostate**

45.1.1. **Unfit**

45.1.1.1. Congenital structural abnormalities of kidneys or urinary tract.

45.1.1.2. Unilateral renal agenesis.

45.1.1.3. Unilateral or bilateral hypoplastic/ contracted/ shrunken kidney of size less than 08 cm.

45.1.1.4. Malrotation of kidney.

45.1.1.5. Horseshoe kidney.

45.1.1.6. Crossed fused/ ectopic kidney.

45.1.1.7. Any other congenital anomaly of the kidney or urinary tract.

45.1.2. Simple single renal cyst of more than 1.5 cm size in one kidney.

45.1.3. Complex cyst/ Polycystic disease/ multiple or bilateral cysts.

45.1.4. Renal/ Ureteric/ Vesical mass.

45.1.5. Hydronephrosis or Hydroureteronephrosis.

45.1.6. Calculi - Renal/ Ureteric/ Vesical.

45.1.7. Caliectasis.

45.1.8. Bladder diverticula.

45.1.9. Renal transplant recipient/ Nephrectomy/ Partial Nephrectomy/ RFA/ Cryoablation.

45.2. **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.

45.3. Prostatic cyst: To be assessed for fitness after 04 weeks of surgery.

Endocrine System

46. Any history suggestive of endocrine disorders will be a cause for rejection.

47. **Clinical Examination**. Any clinical evidence of endocrine disease will be unfit.

48. All cases of thyroid swelling/ operated cases for thyroid swelling are unfit. Fitness of such cases will Be decided during appeal medical board after evaluation with appropriate investigations.

49. 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 02 hours of 75 g of anhydrous / 82.5 g monohydrate Glucose load) and HbA1c evaluation, which will be recorded.

Dermatological System

50. **Relevant History and Examination**. Candidates who give history of sexual exposure to a Commercial Sex Worker (CSW) and have evidence of healed penile sore in the form of a scar must be declared permanently unfit, even in absence of an overt STD, as these candidates are likely 'repeaters' with similar indulgent promiscuous behaviour.

51. **Assessment of Diseases of the Skin.** Acute non-exanthematous and noncommunicable 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.

52. 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:-

52.1. **Palmoplantar Hyperhidrosis**. Some amount of Palmoplantar Hyperhidrosis is physiological, considering the situation that recruits face during medical examination. However, candidates with significant (bilateral and symmetrical) Palmoplantar Hyperhidrosis should be considered unfit. Candidates with fissures, hyperkeratosis and evidence suggestive of severe hyperhidrosis is Unfit. In addition, those candidates who have been declared Unfit based on Starch Iodine test during AMB by Sr Adv (with photographic evidence of the test attached to the documents) may not be considered for grant of RMB.

52.2. **Acne vulgaris**. 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.

52.3. **Palmoplantar Keratoderma.** Any degree of palmoplantar keratoderma manifesting with hyperkeratotic and fissured skin over the palms, soles and heels should be considered unfit.

52.4. **Ichthyosis vulgaris.** 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.

52.5. Candidates having any keloid should be considered unfit.

52.6. 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.

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

52.8. Single corns/ Warts/ Callosities will be considered fit, 12 weeks 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.

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

52.10. **Vitiligo**. Those having vitiligo must be made unfit.

52.11. Scars which by their extent or position cause or are likely to cause disability/ or marked disfigurement are unfit.

52.12. **Urticaria**. Angioedema and symptoms Dermographism- Will be considered unfit.

53. 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.

54. 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.

55. 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.

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

57. Pityriasis Versicolor is to be made unfit. They can be made fit on appeal, if completely treated.

58. Any fungal infection of any part of the body will be unfit. They can be made fit on appeal, if completely treated.

59. Scrotal Eczema may be considered fit on recovery.

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

61. Intertrigo may be considered fit on recovery.

62. All Sexually Transmitted Diseases (STDs) are unfit.

63. Scabies are unfit. They can be fit on appeal, if completely treated.

64. 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.

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

65.1. There is a well healed surgical wound with no residual disease.

65.2. No Post-Operative complication.

65.3. Surgical scar should be sufficiently matured and unlikely to cause any problems during military training.

65.4. Normal general physical examination.

65.5. Endocrine workup is normal.

66. **Polythelia/Polymazia.** Candidates to be considered fit after 12 weeks of Post-Operative period if there is a well healed surgical wound, no Post-Operative complication with a well healed surgical wound and no residual disease.

67. **Tattoos**. Fitness standards will be as per relevant AO/NO/AFO or as per Service specific guidelines. However, fitness after tattoo removal will be as opined by the dermatologist, the fitness will be assessed after 04 weeks of last sitting of laser removal or else 12 weeks, if no specific procedure has been mentioned by the candidate.

68. **Cosmetic Surgery** – All cases are Unfit. At appeal to be declared Fit only, if no underlying medical condition likely to functionally affect future employability in Armed Forces is present.

Musculoskeletal System and Physical Capacity

69. **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.

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

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

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

70.3. **Scoliosis**. 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. 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. Fitness criteria for scoliosis have been enumerated in para 71.1.7.

71. **Spinal Conditions**. The candidate with following conditions will be Unfit: -

71.1. **Congenital/ Developmental Anomalies**

71.1.1. Wedge Vertebra.

71.1.2. Hemivertebra.

71.1.3. Anterior Central Defect.

71.1.4. Cervical Ribs (Unilateral/ Bilateral) only if associated with demonstrable neurological or circulatory deficit.

71.1.5. Spina Bifida. All types are unfit except in sacrum and LV5 (if completely sacralized).

71.1.6. Loss of Cervical Lordosis with neurological deficit.

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

71.1.7.1. Individual is asymptomatic.

71.1.7.2. No history of trauma to spine.

71.1.7.3. No chest asymmetry/ shoulder imbalance or pelvic obliquity in the lumbar spine.

71.1.7.4. There is no neurological deficit.

71.1.7.5. No congenital anomaly of the spine.

71.1.7.6. There is absence of syndromic features.

71.1.7.7. ECG is normal.

71.1.7.8. No deformity exists on full flexion of the spine.

71.1.7.9. No restriction of range of movements

71.1.7.10. No organic defect causing structural abnormality.

71.1.8. Atlanto-occipital and Atlanto-axial anomalies.

71.1.9. Incomplete block vertebra at any level and Complete or incomplete block vertebra at Cervical level.

71.1.10. Complete block vertebra at more than one level. (Block vertebra at a single level at Dorsal level only is acceptable).

71.1.11. **Lumbosacral Transitional Vertebra (LSTV)**. Unilateral sacralization or lumbarization (complete or incomplete) and Bilateral incomplete sacralization or lumbarization (LSTV- Castellvi Type II a and b, III a and IV). Bilateral Complete Sacralization of LV5 and Bilateral Complete Lumbarization of SV1, LSTV Castellvi Type III b, Type I a and I b are acceptable.

71.1.12. Cervical canal stenosis is not acceptable. Anterio-posterior diameter<11 mm is suggestive od spinal stenosis. Pavlov ratio of 0.8 is abnormal.

71.2. **Traumatic Conditions**

71.2.1. Spondylolysis/ Spondylolisthesis.

71.2.2. Compression fracture of vertebra.

71.2.3. Intervertebral Disc Prolapse.

71.2.4. Schmorl"s Nodes at more than one level.

71.3. **Infective**

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

71.3.2. Infective Spondylitis.

71.4. **Autoimmune**

71.4.1. Rheumatoid Arthritis and allied disorders.

71.4.2. Ankylosing Spondylitis.

71.4.3. Other Rheumatological disorders of spine e.g., Polymyositis, Systemic Lupus Erythematosus (SLE) and Vasculitis.

71.5. **Degenerative**

71.5.1. Spondylosis.

71.5.2. Degenerative Joint Disorders.

71.5.3. Degenerative Disc Disease.

71.5.4. Osteoarthrosis/ Osteoarthritis.

71.5.5. Scheuermann"s Disease (Adolescent Kyphosis).

Conditions Affecting the Assessment of Upper Limbs

72. **Amputations and Deformities of Upper limbs**. Deformities of the upper limbs or their parts will be cause for rejection. Candidate with an amputation of a limb or any part of limb including fingers will not be accepted for entry.

72.1. Fracture of upper limb not involving articular surface and without neuro/ vascular deficient which have united without deformity and impairment of function are acceptable after 06 months of injury and after assessment by orthopaedic surgeon.

72.2. Similarly, fracture of lower limbs not involving articular surface and without neuro/ vascular deficient which have united with no malunion or loss of function are acceptable after 12 months of surgery and after assessment by Orthopaedic surgeon.

72.3. Any limb length discrepancy is not acceptable. Malunited fracture of clavicle without loss of function and without gross deformity are acceptable. Healed fractures with metallic implant will be unfit. Healed fractures with significant cosmetic deformity will be unfit.

72.4. Inability to clench fist, pick up a pin, grasp an object, or touch tips of fingers with thumb will be unfit.

73. **Fingers and Hands**. Deformities and limitations to movements will be considered unfit.

73.1. **Polydactyly**. Can be declared fit 12 weeks post- operative, if there is no bony abnormality on radiograph, wound is well healed, scar is supple and there is no evidence of neuroma on clinical examination.

73.2. **Simple Syndactyly**. Can be declared fit 12 weeks post-operative, if there is no bony abnormality on radiograph, wound is healed, scar is supple and webspace is satisfactory.

73.3. **Complex syndactyly**. Unfit.

73.4. **Hyper extensible finger joints**. All candidates shall be thoroughly examined for hyper extensible 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.

73.5. **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 proximal inter-phalangeal (PIP) and metacarpophalangeal (MCP) joint which can result in compromised hand function. Normal range of movement at distal inter-phalangeal (DIP) joints is 0-80 degree and PIP joint is 0-90 degree in both flexion and extension. In Mallet finger, the candidate is unable to extend/ straighten distal phalanx of fingers completely.

73.5.1. Candidates with mild condition i.e., less than 10 degree of extension lag without any evidence of trauma, pressure symptoms and any functional deficit must be declared fit.

73.5.2. Candidates with fixed deformity of fingers will be declared unfit.

73.6. **Loss of finger**. Loss of any finger or parts of finger (except terminal phalanx of little finger) entails rejection.

74. **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.

75. **Elbow**. Slight limitation of movement does not bar acceptance provided functional capacity is adequate. Ankylosis will entail rejection. Cubitus Valgus is said to be present when the carrying angle (angle between arm and forearm in anatomical posture) is exaggerated. In absence of functional disability and obvious cause like a fracture, mal-union and fibrosis, **a carrying angle of upto 15° in male and 18° in female candidates would be made fit**. Candidate with fixed flexion deformity of the elbow will be declared as unfit.

75.1. **Hyperextension at Elbow Joint**. Individuals can have naturally hyperextended elbow. This condition is not a medical problem, but can become a cause of fracture or chronic pain especially considering the stress and strains to

which the military population is involved in. Also, the inability to bring the elbow to within 10 degree of the neutral position produces difficulty in performing activities of daily living.

75.1.1. **Measurement modality.** Measured using a goniometer

75.1.2. **Recommendation**. Normal elbow extension is zero degree. Up to 10 degree of hyperextension is within normal limits, if the patient has no history of trauma to the joint. Anyone with hyperextension more than 10 degree must be unfit.

75.2. **Cubitus valgus** should be primarily a clinical diagnosis, **a carrying angle of upto 15° in male and 18° in female candidates should be made fit.**

75.3. **Cubitus Varus**. Varus > 05 degree will be unfit.

75.4. **Cubitus Recurvatum**. Recurvatum > 10 degrees is unfit.

76. **Shoulder Girdle**. History of any episode (single/ recurrent) dislocation of shoulder with or without corrective surgery will be unfit.

77. **Clavicle**. Non-union of an old fracture clavicle will entail rejection. Malunited clavicle fracture without loss of function and without obvious deformity is acceptable.

78. **Conditions Affecting the Assessment of Lower Limbs**

79. **Hallux Valgus**. Hallux valgus with meta-tarso-phalangeal angle >20 degree and first-second inter-metatarsal angle of >10 degree is unfit. Hallux valgus of any degree with bunion, corns or callosities is unfit.

80. **Hallux Rigidus**. Hallux rigidus is unfit for service.

81. **Hammer Toes (Single or Multiple)**. Isolated single flexible mild hammer toe without symptoms may be accepted. Fixed (rigid) deformity or hammer toe associated with corns, callosities, bursa on dorsum of toe, mallet toes or hyperextension at meta-tarso-phalangeal joint (claw toe deformity) are to be rejected.

82. **Loss of Digits.** Loss of any toes entails rejection.

83. **Amputations and Deformities of Lower Limbs**. Deformities of the lower limbs or their parts will be cause for rejection. Candidate with an amputation of a limb or any part of limb including toes will not be accepted for entry.

84. **Pes Planus (Flat feet)**

84.1. 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.

84.2. Rigid or fixed flat feet, gross flat feet, with planovalgus, eversion of heel, cannot balance himself/ herself 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.

85. **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.

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

87. **Knee (Conditions that will render a candidate UNFIT)**

87.1. Current loose or foreign body in the knee joint.

87.2. Anterior or posterior cruciate, medial and lateral collateral ligament injury with or without instability.

87.3. ACL reconstruction surgery (Open or Arthroscopic).

87.4. Symptomatic medial or lateral meniscal injury with limitation of activity.

87.5. Meniscectomy, meniscal repair, meniscal transplant.

87.6. Dislocation of patella in past 02 years, or recurrent episodes with or without surgery.

87.7. Dislocation of the knee, with or without surgery.

87.8. Chondromalacia patellae, chronic patellofemoral pain syndrome and, osteoarthritis, or traumatic arthritis.

88. **Genu Valgum (Knock Knee)**. Genu Valgum with intermalleolar distance > 05 cm in males and > 08 cm in females will be unfit.

89. **Genu Varum (Bow Legs)**. Genu varum with intercondylar distance > 07 cm will be considered unfit.

90. **Genu Recurvatum**. If the hyperextension of the knee is within 10 degree and is unaccompanied by any other deformity, the candidate must be accepted as fit.

91. **Hip (Conditions that will render a candidate UNFIT)**

91.1. Developmental dysplasia (congenital dislocation) of the hip, osteochondritis of the hip (Legg-Calve-Perthes Disease) or slipped capital femoral epiphysis of the hip.

91.2. Traumatic hip dislocation.

91.3. Hip arthroscopy or femoral acetabular impingement.

Healed Fractures

92. **Intra-Articular Fractures**. 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.

93. **Extra-Articular Fractures**.

93.1. 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.

93.2. 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:-

93.2.1. No evidence of mal-alignment/mal-union.

93.2.2. No neuro-vascular deficit.

93.2.3. No soft tissue loss.

93.2.4. No functional deficit.

93.2.5. No evidence of osteomyelitis/sequestra formation.

Peripheral Vascular System

94. **Varicose Veins**. All cases with active varicose veins will be declared unfit. Post-op cases of varicose veins also remain unfit.

95. 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.

96. Lymphoedema. History of past/ current disease makes the candidate unfit.

97. **Miscellaneous Conditions of the Extremities Considered UNFIT**

97.1. Symptomatic osteochondritis of the tibial tuberosity (OsgoodSchlatter Disease) within the past 12 months.

97.2. Stress fractures, either recurrent or a single episode occurring during the past 12 months.

97.3. Acromioclavicular separation.

97.4. Joint replacement or resurfacing of any site.

97.5. Neuromuscular paralysis, weakness, contracture, or atrophy.

97.6. History/ clinical evidence of healed or current osteomyelitis.

97.7. Osteochondral defects, osteochondritis dissecans.

97.8. History of any cartilage surgery, including but not limited to cartilage debridement or chondroplasty, chondromalacia, microfracture, or cartilage transplant procedure.

97.9. History of post-traumatic or exercise-induced compartment syndrome.

97.10. Osteonecrosis of any bone.

97.11. Any joint laxity, unstable joint, ligamentous injuries, any surgery of the joint for any disease / disability, malformation/ deformity, cysts, arthritis.

Central Nervous System

98. **History of Mental Illness**. A candidate giving a history of mental illness/ taken any anti-psychiatric medications/ psychological afflictions will be rejected.

99. **Family History of Psychological Disorders**. 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 must entail rejection.

100. **Family History of Epilepsy**. If a history of epilepsy is obtained in a near relative, then the candidate must be made unfit and subjected to a detailed evaluation with appropriate investigations at the time of appeal.

101. **Severe or 'Throbbing' Headache and Migraine**. A candidate with migraine, which was severe enough to make him/ her consult a doctor, will be a cause for rejection. Even a single attack of migraine with visual disturbance or Migrainous epilepsy is to be made unfit.

102. **Fits and Convulsions**. History of epilepsy in a candidate is a cause for rejection. 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. Complex partial seizures, are criteria for making the candidate unfit.

103. **Heat stroke**. History of repeated attacks of heat stroke, hyperpyrexia or heat exhaustion bars employment for duties into Armed Forces as it is 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.

104. **Head Injury or Concussion**. A history of severe head injury/ fracture of the skull/ history of intracranial damage or any residual bony defect in the calvaria is a cause for rejection. Presence of burr holes will be cause for rejection.

105. **Psychosis**. All candidates who are suffering from psychosis are to be rejected. Drug dependence in any form will also be a cause for rejection.

106. **Psychoneurosis**. Mentally unstable and neurotic individuals are unfit for commissioning. Juvenile and adult delinquency, history of nervous breakdown or chronic ill-health are causes for rejection.

107. **Organic Nervous Conditions**. Any evident neurological deficit will call for rejection.

108. **Tremors**. Persistent tremors even after reassuring the candidate will be unfit. On appeal only pathological tremors will render the candidate unfit.

109. **Stammering**. Candidates with stammering will be declared unfit. Stammering will be made unfit, even if it is first detected during the time of appeal medical board.

110. Any history of mental disorder in the family or in the candidate himself/ herself or signs of intellectual, emotional or conduct disorders or symptoms of psychosomatic disorders should be made unfit and subjected to detailed evaluation and appropriate investigations at the time of appeal by the psychiatrist.

111. **Hyperostosis Frontalis Interna** will be considered fit in the absence of any other metabolic abnormality.

112. **Hesitation Cuts.** Presence of scar(s) on extremities and any other body part accessible to do dominant hand, indicative of deliberate self harm, should be grounds for rejection. Mo/Spl will declare the candidate unfit at SMB and detailed evaluation to be carried out by Psychiatrist at AMB/RMB.

Ear, Nose and Throat

113. **Nose and Para-nasal Sinuses**

113.1. **External Deformity of Nose or Deviated Nasal Septum**

113.1.1. Unfit - Gross external deformity of nose causing cosmetic deformity or obstruction to free breathing as a result of a marked septal deviation

113.1.2. On appeal - Post corrective surgery with residual mild deviation with adequate airway patency will be acceptable after 04 weeks post-surgery.

113.2. **Septal Perforation - Unfit**

113.2.1. On appeal - Any anterior septal perforation/ posterior septal perforation > 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.

113.3. Atrophic rhinitis - Unfit.

113.4. Any history/ clinical evidence suggestive of allergic rhinitis/ vasomotor rhinitis are to be declared Unfit.

113.5. Any infection of the para-nasal sinuses is to be declared Unfit. Such cases may be accepted following successful treatment at the Appeal Medical Board.

113.6. **Nasal polyposis**. Unfit (treated or untreated).

113.7. **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 fit. 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 partial removal or deep extension it would entail rejection.

114. **Oral Cavity**

114.1. **Unfit**

114.1.1. Current/ operated cases of leukoplakia, erythroplakia, submucous fibrosis, ankyloglossia and oral carcinoma.

114.1.2. Current oral ulcers/ growths and mucous retention cysts.

114.1.3. Trismus due to any cause.

114.1.4. Cleft palate, even after surgical correction.

114.2. **Fit**

114.2.1. Completely healed oral ulcers after 04 weeks post-surgery with proven benign histopathology.

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

114.2.3. 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.

115. **Pharynx and Larynx and Throat**. The following conditions are unfit:-

115.1. Any ulcerative/ mass lesion of the pharynx.

115.2. Candidates in whom tonsillectomy is indicated. Such candidates may be accepted minimum 04 weeks after successful surgery provided there are no sequelae and histology are benign.

115.3. Cleft palate.

115.4. Any disabling condition of the pharynx or larynx causing persistent hoarseness or dysphonia.

115.5. Chronic laryngitis, vocal cord palsy, laryngeal polyps and growths.

115.6. Disease of throat palate, tongue, tonsil, gums and disease or injury affecting the normal functioning of the either mandibular joint.

115.7. Persistent hoarseness, dysphonia, chronic laryngitis, vocal cord palsy, laryngeal polyps and growths.

115.8. Speech defects including stammering.

116. **Eustachian Tube Dysfunction**. Unfit- Obstruction or insufficiency of Eustachian tube function. Altitude chamber ear clearance test will be carried out before acceptance in case of in-service candidates.

117. **Tinnitus**. Unfit

118. **Susceptibility to Motion Sickness**. Specific enquiry must be made for any susceptibility to motion sickness. An endorsement to this effect must 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.

119. **Hearing loss**. The following are not acceptable:-

119.1. Hearing acuity below 610 cm in CV or FW.

119.2. The audiometric loss greater than 20 db, in frequencies between 250 and 8000 Hz on PTA.

120. **External Ear**. The following defects of external ear must be declared unfit:-

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

120.2. Cases of Chronic Otitis Externa.

120.3. Any condition (ear wax, atresia/ narrowing of external auditory meatus or neoplasm, exaggerated tortuosity of the canal) preventing a proper visualization of the tympanic membrane.

120.4. **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 fit. 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 partial removal or deep extension it would entail rejection.

120.5. Granulation or polyp in external auditory canal.

121. **Middle Ear**

121.1. The following conditions of middle ear will entail rejection: -

121.1.1. Current Otitis Media of any type.

121.1.2. Evidence of healed Chronic Otitis Media in the form of Tympanosclerosis or scarring affecting more than 50% of the Pars Tensa of Tympanic Membrane (TM).

121.1.3. All cases of Tympanoplasty and Myringoplasty/ Myringotomy for Chronic Otitis Media.

121.1.4. Any residual perforation

121.1.5. Any implanted hearing devices such as cochlear implants, bone anchored hearing aids etc., are not acceptable.

121.1.6. Deafness due to any cause. Any reduction less than 610 cm in CV/ FW is not acceptable. Wherever PTA is indicated and thresholds are obtained, the hearing thresholds by air conduction at 500 Hz to 8000 Hz should be 25 dB or better. Isolated lower threshold upto 30 dB may be accepted provided the ear is otherwise normal.

121.1.7. Peripheral vestibular dysfunction. History of motion sickness or any evidence or peripheral vestibular dysfunction due to any cause.

121.2. **FIT**

121.2.1. Tympanic membrane is mobile on pneumatic otoscopy.

121.2.2. No hearing impairment on the Free Field Hearing Test (CV & FW).

121.2.3. Pure Tone Audiometric thresholds (where required) are within normal limits.

121.2.4. Tympanometry shows Type `A" Tympanogram (where performed).

121.2.5. Healed Otitis Media in the form of tympanosclerosis involving less than 50% of Pars Tensa with normal PTA and Tympanometry results.

122. **Miscellaneous Ear Conditions**. The following ear conditions will entail rejection:-

122.1. Otosclerosis.

122.2. Meniere"s disease.

122.3. Vestibular dysfunction including nystagmus of vestibular origin.

122.4. Bell"s palsy following ear infection

Ophthalmic System

123. **Clinical Examination findings**.

123.1. Candidates, who are wearing spectacles or found to have defective vision, should be properly assessed. All cases of squint are unfit.

123.2. **Ptosis**. Candidates, who meet the following criteria are **Fit**.

123.2.1. Mild ptosis.
123.2.2. Clear visual axis.

123.2.3.Normal visual field.

123.2.4. No sign of aberrant degeneration/head tilt /Horner's Syndrome.

123.2.5. Rest all cases - **Unfit**

123.2.6. On appeal - Candidates who have undergone surgical correction may be considered fit provided one year has elapsed post-surgery with no recurrence, the above-mentioned criteria are met and upper eyelid is not more than 02 mm below the superior limbus.

123.2. **Exotropia**. Unfit.

123.3. **Anisocoria**. If size difference between the pupils is >01 mm, candidate will be considered unfit.

123.4. **Heterochromia irides**. Unfit

123.5. **Sphincter tears**. Can be considered fit, if size difference between pupils is <01 mm, pupillary reflexes are brisk with no observed pathology in cornea, lens or retina.

123.6. **Pseudophakia**. Unfit

123.7. **Blepharitis**. Candidates with blepharitis, particularly with loss of eyelashes, must be rejected.

123.8. **Ectropion/Entropion**. These cases are to be made unfit. On appeal, mild ectropion and entropion which in the opinion of ophthalmologist will not hamper day to day functioning in any way, may be made fit.

123.9. **Pterygium**. All cases of pterygium are to be made unfit. On appeal, regressive non-vascularised pterygium occupying ≤ 1.5 mm of the peripheral cornea may be made fit by Eye Specialist after measurement on a slit lamp.

123.10. **Nystagmus**. All cases of nystagmus are to be made unfit except for physiological nystagmus.

123.11. Naso-lacrymal duct occlusion producing epiphora or a mucocele entails rejection.

123.12. Active Uveitis (iritis, cyclitis and choroiditis) will be grounds for rejection. Candidates giving a history of this condition should be made unfit.

123.14. **Cornea**.

123.14.1. Unfit

123.14.1.1. Corneal scars/opacities. On appeal small nebular corneal opacities/scars in the periphery not affecting vision/visual filed in day and night may be considered fit by the specialist.

123.14.1.2. Any candidate with progressive corneal disorders viz, Corneal dystrophies, Keratoconus, Keratoglobus, any corneal degenerations.

123.14.1.3. Any active corneal disorder.

123.15. **Lenticular opacities**. Any lenticular opacity detected while being examined during rallies/SMB should be considered Unfit and be assesses in detail during AMB/RMB

123.15.1. **On appeal. Unfit.** Any lenticular opacity that is causing visual deterioration or is in the visual axis or central area of 04 mm around the pupils is unfit. The propensity of the opacities not to increase in size or number should also be considered when deciding fitness.

123.15.2. **Fit.** Small stationary lenticular opacities in the periphery like congenital blue dot cataract, not affecting the visual axis/ visual field (should be less than 10 in number and central area of 04 mm should be clear).

123.16. Optic Nerve Drusen. Unfit.

123.17. **High Cup - Disc ratio**. Unfit, if any of the following conditions exist:-

126.17.1. Inter-Eye asymmetry in cup disc ratio > 0.2.

126.17.2. Retinal Nerve Fiber Layer (RNFL) defect seen by RNFL analysis on Optical Coherence Tomography (OCT).

126.17.3. Visual Field defect detected by Visual Field Analyzer.

123.18. Migraine with visual symptoms are not a strictly ocular problem and should be assessed in accordance with para 101.

123.19. 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 C to this guidelines. A proven case of night blindness is unfit.

123.20. Restriction of movements of the eyeball in any direction and undue depression/prominence of the eyeball are unfit.

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

123.22. **Lattice degeneration**. The following lattice degeneration will render a candidate unfit:-

123.22.1. Single circumferential lattice extending more than two clock hours in either or both eyes.

123.22.2. Two circumferential lattices, each more than one clock hour in extent in either or both eyes.

123.22.3. Radial lattices.

123.22.4. Any lattice with atrophic hole/flap tears (Unlasered).

123.22.5. Lattice degeneration posterior to equator.

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

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

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

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

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

123.24. **Keratoconus**. Keratoconus is unfit.

124. **Myopia**.

124.1. Unfit, if outside the prescribed visual limits.

124.2. Unfit even if the corrected visual acuity is within the acceptable limits when: -

124.2.1. There is a strong family history of high myopia, and that the visual defect is recent onset.

124.2.2. If physical growth is still expected.

124.2.3. If the fundus appearance is suggestive of progressive myopia.

125. **Refractive Surgeries**. The disposal of candidates who have undergone Kerato refractive Surgeries (PRK, LASIK, Femto LASIK, SMILE or equivalent procedures) for commissioning in the Air Force in all branches is as follows: -

125.1. **Fit**

125.1.1. Candidates for IAF meeting the visual requirements for the branch as laid down in Appendix D. Residual refraction after such procedure should not be more than +/- 1.0 D Sph or Cyl for branches where correctable refractive errors are permitted.

125.1.2. Keratorefractive Surgery must not have been carried out before the age of 20 years.

125.1.3. At least 12 months must have elapsed post uncomplicated stable Keratorefractive Surgery with no history or evidence of any complication.

125.1.4. The axial length of the eye must not be more than 26 mm as measured by IOL master.

125.1.5. The post Keratorefractive Surgery corneal thickness as measured by a corneal Pachymeter must not be less than 450 microns.

125.1.6. **LASIK or Equivalent**. In order to be made Fit, the following criteria will have to be met: -

125.1.6.1. Age more than 20 yrs at the time of surgery.

125.1.6.2. Minimum 12 months post LASIK.

125.1.6.3. Central corneal thickness equal to or more than 450 µ.

125.1.6.4. Axial length by IOL master equal to or less than 26 mm.

125.1.6.5. Residual refraction of equal to or less than +/ - 1.0 D including cylinder (if acceptable for category applied for). Normal healthy retina.

125.1.6.6. LASIK and equivalent procedures will be permitted. However, procedures like Radial Keratotomy or equivalent will be permanently unfit.

125.1.6.7. Any candidate who has undergone any Keratorefractive procedure will have to produce a certificate from the Centre where he/ she has undergone the procedure specifying the date and type of surgery.

125.2. **Unfit**

125.2.1. Radial Keratotomy (RK) surgery for correction of refractive errors

125.2.2 Individuals with high refractive errors (> 6 D) prior to Keratorefractive Surgery.

126. **Cataract Surgeries**. Candidates having undergone cataract surgery with or without IOL implants will be declared unfit.

127. **Other Eye Surgeries**. Candidates having undergone any invasive surgeries viz, Implantable Collamer Lens (ICL), Trabeculectomy, Glaucoma surgeries with or without implants, Corneal Collagen Crosslinking with Riboflavin (C3R), INTACS, any intra ocular injections, retinal surgeries etc, will be declared unfit.

Ocular Muscle Balance

128. Individuals with manifest squint are not acceptable for commissioning.

129. 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.

129.1. **Convergence (as Assessed on RAF rule)**.

129.1.1. **Objective Convergence**. Up to 10 cm- Fit. More than 10 cm - Unfit.

129.1.2. **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.

129.1.3. **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 years	**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

130. **Visual Acuity/Colour Vision**. The visual acuity and colour vision requirements are detailed in Appendix D to this chapter. Those who do not meet these requirements will be rejected.

131. 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. Standards for assessment of Ocular Muscle Balance are detailed in Appendix E to this chapter.

132. 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.

Appendix C

[Refers to para 123.19. Ophthalmology standards]

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)

Appendix D

(Refers para 130 of Ophthalmology standards)

VISUAL STANDARDS FOR CANDIDATES AT INITIAL ENTRY

Ser No.	Med Cat	Branch	Maximum Limits of Refractive Error	Visual Acuity (VA) with Limits of Maximum Correction	Colour Vision
1.	A1G1	F(P) including WSOs/CSOs, Flying Branch Cadets at NDA and AFA	**Hypermetropia**: +1.5 D Sph **Manifest Myopia**: Nil **Astigmatism**: + 0.75 D Cyl (within +1.5 D Max) **Retinoscopic Myopia**: Nil	6/6 in one eye and 6/9 in other, correctable to 6/6 both eyes only for Hypermetropia	CP-I
2.	A4G1	Adm/ATC/FC/ WS	**Hypermetropia**: +3.5 D Sph **Myopia**: -3.50 D Sph **Astigmatism:** ±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:** ±2.50 D Cyl	Corrected visual acuity must be 6/6 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:** ±2.50 D Cyl	Corrected visual acuity must be 6/6 both eyes. Wearing of glasses will be compulsory.	CP-II
5.	A4G1	Accts/ Lgs/ Edn	**Hypermetropia**: +3.5 D Sph **Myopia**: -3.50 D Sph **Astigmatism:** ±2.50 D Cyl	Corrected visual acuity must be 6/6 both eyes. Wearing of glasses will be compulsory.	CP-II
6.	A4G1	10+2/ NDA Entry to ground Duty Branches of IAF.	**Hypermetropia**: +2.5 D Sph **Myopia**: -2.50 D Sph **Astigmatism:** ±2.0 D Cyl	Uncorrected VA 6/ 36 and 6/ 36 Corrected VA 6/ 6 and 6/ 6	CP-II

Note: -

1. Ocular muscle balance for personnel covered in Ser No. 1 and 2 must conform to Appendix E to this Chapter.

2. 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.

3. Visual standards of Air Wing Cadets at NDA and Flt Cdts of F(P) at AFA must conform to A1G1 F(P) standard (Ser No. 1 of Appendix D).

Appendix E

(Refer para 131)

STANDARD OF OCULAR MUSCLE BALANCE FOR FLYING DUTIES

Ser. No.	Test	Fit
1	Maddox Rod Test at 06 m	Exo - 06 Prism D Eso - 06 Prism D Hyper - 01 prism D Hypo - 01 prism D
2	Maddox Rod Test at 33 cm	Exo -16 Prism D Eso - 06 Prism D Hyper - 01 Prism D Hypo - 01 Prism D
3	TNO Test or Titmus Fly Test	All of BSV grades
4	Convergence	Up to 10 cm
5	Cover Test for Distance and Near	Latent divergence/convergence recovery rapid and complete

Haemopoietic System

133. All cases of anemia (<13 g/ dL in males and <12 g/ dL in females) will be declared unfit. Hemoglobin of more than 16.5 g/ dl in males and more than 16g/ dl in females will be considered as Polycythemia and deemed unfit. Any history of tiredness, lassitude, easy fatigability, general weakness, haemorrhage into the skin like ecchymosis/ petechiae, epistaxis, bleeding from gums and alimentary tract, persistent bleeding after minor trauma/ lacerations/ tooth extraction or menorrhagia in female should be elicited and carefully analysed.

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

135. Candidates with history of hemophilia or von Willebrand"s disease are to be declared unfit. Candidates with clinical evidence of purpura or evidence of thrombocytopenia are to be considered unfit. Cases of Purpura Simplex (simple easy bruising), a benign disorder seen in otherwise healthy women, may be accepted.

136. **Monocytosis**. Absolute monocyte counts greater than 1000/ cumm or more than or equal to 10% of total WBC is to be deemed unfit.

137. **Eosinophilia**. Absolute eosinophil counts greater than or equal to 500/ cumm is deemed unfit.

138. **Hemoglobin**. More than 16.5 g/ dL in males and more than 16 g/ dL in females will be considered as Polycythemia and deemed Unfit.

139. Current or past history of any heredity blood disorder will be cause for rejection.

140. **Dental Standards. Sequence of examination for reference by Recruiting Medical Officers**

140.1. **Extra oral examination**

140.1.1. **Gross facial examination**. Presence of any gross asymmetry or soft/ hand tissue defects and pathological condition of the jaws will be made unfit.

140.1.2. **Functional examination**

140.1.2.1. **Temporomandibular Joint**. TMJs will be bilaterally palpated for tenderness and/ or clicking. Candidates with symptomatic clicking and/ or tenderness or dislocation of the TMJ on wide opening will be **declared unfit.**

140.1.2.2. **Mouth Opening**. A mouth opening of less than 30 mm measured at the incisal edges will be **declared unfit.**

140.2. **Intra oral examination**

140.2.1. **Teeth.** Number of teeth present is to be counted for award of points as mentioned above. Points will not be awarded in case of the following:

140.2.1.1. **Dental Caries**. Teeth with caries that have not been restored or teeth associated with abscesses and / or sinuses will not be counted for award of dental points.

140.2.1.2. **Restorations**. Teeth having **inadequate restorations** will not be awarded dental points.

140.2.1.3. **Mobile teeth**. Mobile teeth will not be awarded dental points.

140.2.1.4. **Retained Deciduous Teeth**. Retained deciduous teeth will not be awarded dental points.

140.2.1.5. **Morphological Defects**. Teeth with gross structural defects will not be awarded dental points.

140.2.2. **Periodontium**. The condition of gums, should be healthy.

140.2.3. **Malocclusion**. Candidates with malocclusion affecting masticatory efficiency and phonetics will be declared unfit. 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 or reverse overjet will be declared UNFIT**.

140.2.4. **Hard & Soft tissues**. Soft tissues of cheek, lips, palate, tongue ad sublingual region and maxilla/ mandibular bony apparatus must be examined for any swelling, discoloration, Ulcers, scars, white patches, sub mucous fibrosis etc. Individual with any hard or soft tissue lesion **will be declared UNFIT**.

140.2.5. **Orthodontic appliances.** Candidates wearing fixed or removable orthodontic appliances will be declared **UNFIT**.

140.3. **Implants/ Fixed Partial Dentures (FPD)/ Implant Supported FPDs**. Will not be awarded any dental points.

141. **Sequence of examination for reference by Dental Officers**. DO will assess all cases referred by the Rtg MO as per the guidelines elucidated in the succeeding paras:

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141..1. Cases will be assessed using clinical examination and diagnostic aids, as deemed necessary, for providing a thorough professional opinion on the case. DOs must familiarize themselves thoroughly with the existing recruiting standards and exercise due caution before declaring a candidate unfit to avoid rejections being overturned during RMB, as far as possible.

142.2. If any additional condition that renders the candidate dentally unfit, other than that for which the candidate has been declared unfit by the Rtg MO, is observed during the course of examination by the DO, it will be endorsed in the Medical Examination Form.

142.3. **Extra oral Examination**

142.3.1. **Gross facial examination**. Candidates must be seated upright in a chair. Any gross asymmetry, soft or hard tissue defects/ scars must be noted. If present, relevant history must be elicited. Congenital malformations must be clearly identified and any progressive co-morbidity is to be noted. Candidates with incipient pathological conditions of the jaws, which are known to be progressive or recurrent, will be declared unfit. Significant jaw discrepancies between upper and lower jaw which may hamper efficient mastication and/ or speech will render the candidate **UNFIT**.

142.3.2. **Functional examination**. Candidates will be asked to open the mouth fully TMJs will be bilaterally palpated for tenderness and/ or clicking. Candidates with symptomatic clicking and tenderness will be declared unfit. A mouth opening of less than 30 mm measured at the incisal edges will render the candidate unfit Dislocation of the TMJ on wide opening will render the candidate **UNFIT**.

142.4. **Intra oral examination**

142.4.1. **Dental Caries**. Carious teeth with broken down crowns, pulp exposure, residual root stumps, teeth with contiguous abscesses, sinuses will not be counted for award of dental points.

142.4.2. **Restorations**. The DO will judge the soundness of restorations and award points accordingly. Teeth restored by use of inappropriate materials, temporary or fractured restorations and restorations with doubtful marginal integrity or peri-apical pathology will not be counted for award of dental points.

142.4.3. **Loose teeth.** Teeth with clinically demonstrable mobility will not be counted for award of dental points. Periodontally splinted teeth will not be counted for award of dental points.

142.4.4. **Retained deciduous teeth.** Retained deciduous teeth will not be awarded dental points.

142.4.5. **Morphological Defects**. Teeth with developmental defects or any pathological condition of teeth which compromise efficient mastication will not be awarded dental points.

142.4.6. **Periodontium**

142.4.6.1. The periodontal health of the teeth included for counting dental points should be satisfactory. Clinical parameters such as color, contour, consistency, texture, etc should be examined.

142.4.6.2. Individual teeth with localized periodontitis will not be awarded dental points.

142.4.6.3. Candidates with severe periodontal disease will be declared unfit. If periodontal disease is not severe and the teeth are otherwise sound, the candidate may be accepted if in the opinion of the DO he/ she can be cured by simple periodontal therapy excluding extraction.

142.5. **Malocclusion**. Any malocclusion of teeth like excessive overjet, reverse overjet will be assessed with respect to masticatory efficiency, phonetics and performance of duties. If malocclusion of teeth is in the opinion of the dental officer not hampering efficient mastication, phonetics, maintenance of oral hygiene or general nutrition or performance of duties efficiently then candidates will be declared **FIT**. Otherwise, reasons for rejection for malocclusion will be specified. The following criteria will be considered in assessing malocclusion: -

142.5.1. **Edge to edge bite**. Edge to edge bite will be considered as functional apposition and awarded dental points.

142.5.2. **Anterior open bite**. Anterior open bite is to be taken as lack of functional apposition of involved teeth and render the candidate **UNFIT**.

142.5.3. **Cross Bite**. Posterior Teeth in cross bite may still be in functional occlusion and may be awarded points.

142.5.4. **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 and render the candidate **UNFIT**.

142.6. **Hard & soft tissues**. Soft tissues of cheek, lips, palate, tongue and sublingual region must be examined for any swelling, discoloration, white patches, sub mucous fibrosis, ulcers, scars etc. All potentially malignant lesions will be cause for rejection. Clinical diagnosis for sub mucous fibrosis with or without restriction of mouth opening will render the candidate unfit. Bony lesion(s) will be assessed for their pathological nature and commented upon accordingly.

142.7. **Orthodontic 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. Candidate wearing active fixed or removable orthodontic appliances will be declared **UNFIT**.

142.8. **Implants**. Implants and Implant Supported Prosthesis will not be awarded any dental points.

142.9. **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 for the natural tooth (abutments).

Note: Any prosthesis removable/ fixed or implant borne, the natural tooth/ teeth in that component will be awarded dental points.

Assessment of Women Candidates

143. **History**. General method and principles of medical examination candidates will be the same as for male candidates. However, special points pertaining to medical examination of women candidate are given in succeeding paragraphs. A detailed menstrual and gynaecological history in the form of a questionnaire as per Appendix 'F' to this chapter is to be obtained from the candidate and attached with AFMSF - 2. If a history of menstrual, obstetric or pelvic abnormality is given, an opinion of Gynaecologist is to be obtained.

143.1. **General Medical and Surgical Standards**

143.1.1. Any lump in the breast will be a cause for rejection. Cases of f ibroadenoma breast after successful surgical removal may be considered fit after 04 weeks of surgery, with the opinion of a surgical specialist and a normal histopathological report.

143.1.2. Galactorrhea will be cause for unfitness. Fitness after investigation/ treatment may be considered based on merits of the case and opinion of the concerned specialist during AMB.

143.1.3. Amazia, Polymazia and Polythelia (Accessory nipple) will be considered unfit during SMB. Operated cases of Polymazia/ Polythelia will be considered fit after 04 weeks of post-operative period after excision, if there is a well healed surgical wound and no post-operative complications.

144.2. **Gynaecological Examination**. Any abnormality of external genitalia will be considered on merits of each case.

144.2.1. Following conditions are acceptable:-

144.2.1.1. Congenital elongation of cervix which comes up to introitus.

144.2.1.2. Arcuate type of congenital uterine anomaly.

144.2.2. Following conditions will entail rejection:-

144.2.2.1. Amenorrhea will be grounds for rejection.

144.2.2.2. Severe menorrhagia or/ and severe dysmenorrhea.

144.2.2.3. Stress urinary incontinence.

144.2.2.4. 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).

144.2.2.5. Acute or chronic pelvic infection, Endometriosis and Adenomyosis.

144.2.2.6. Disorders of sexual differentiation.

144.2.2.7. Significant hirsutism especially with male pattern of hair growth.

144.3. Any other gynaecological condition not covered above will be considered on merits of each case by Gynecologist.

144.4. All women candidates should be subjected to examination of Hernial orifices & perineum.

144.5. All women candidates are to be subjected to Ultra Sound Examination of the abdominal and pelvic organs for detecting any abnormalities of the internal organs. They should not be pregnant and should also be free from gynaecological disorder such as primary or secondary Amenorrhea/ Dysmenorrhea/ Menorrhagia etc. List of gynaecological condition which are the cause for rejection: -

144.5.1. Ultrasound detected Poly Cystic Ovarian Syndrome (PCOS), with clinical evidence of significant hirsutism.

144.5.2. Complex ovarian cyst of any size.

144.5.3. Simple ovarian cyst more than 06 cm.

144.5.4. Submucous fibroid of any size.

144.5.5. Broad ligament or cervical fibroid of any size causing pressure over ureter.

144.5.6. Endometriosis and Adenomyosis.

144.5.7. Single fibroid uterus more than 03 cm in diameter; fibroid more than two in no. (Each fibroid not more than 15 mm in diameter) or fibroid causing even after the corrective distortion of endometrial surgery.

144.5.8. Congenital elongation of cervix or prolapse which comes outside the introitus even after the corrective after the corrective surgery.

144.5.9. Congenital uterine anomalies except arcuate uterus.

144.5.10. Acute or chronic pelvic infection.

144.5.11. Disorder or sexual differentiation.

144.5.12. Any other condition will be considered on merit of each case by the Gynaecologist.

144.6. Unilocular clear ovarian cyst upto 06 cm and Minimal fluid in pouch of Douglas will be considered as FIT.

144.7. Medical Fitness after laparoscopic or laparotomy: -

144.7.1. Candidates reporting after undergoing Laparoscopic cystectomy or myomectomy may be considered for fitness after 12 weeks of surgery if she is asymptomatic and has a well healed transverse scar.

144.7.2. In case of history and event of Laparotomy candidates" fitness will be considered after 24 weeks after surgery to a well healed scar.

144.7.3. In case of history and event of Caesarean Section, the candidate will be considered for fitness after 52 weeks of the surgical procedure with a vertical scar.

Pregnancy

145. Current pregnancy would be a cause for rejection. The minimum period after which the candidate will be reviewed for appeal post pregnancy would be as follows:-

145.1. **Vaginal Delivery.** 24 weeks after an uncomplicated vaginal

145.2. **MTP/ Abortion.** Minimum 04 weeks and up to 12 weeks

145.3. **Caesarean section.** 24 weeks after uncomplicated caesarean section delivery.

146. The individual would then be examined by the gynaecologist and assessed regarding her fitness. In cases wherein more than 06 months have elapsed, after the initial medical examination, the candidate would be subjected to repeat complete medical examination as per the existing regulations.

147. **Ultrasonography of Lower Abdomen and Pelvis for Women Candidates**. This would be done as per existing orders:-

147.1. **Fit**

147.1.1. Single small fibroid uterus (03 cm or less in diameter) without symptoms.

147.1.2. Unilocular clear ovarian cyst less than 06 cm in diameter.

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

147.1.4. Arcuate uterus type of congenital uterine anomaly.

147.1.5. Minimal fluid in Pouch of Douglas.

147.2. **Unfit**

147.2.1. Candidates with fluid in Pouch of Douglas with internal echoes.

147.2.2. **Uterus**. Absence of uterus or any congenital structural abnormality, except Arcuate uterus.

147.2.3. **Fibroids**

147.2.3.1. Multiple fibroids more than two in number, with larger one > 15 mm in size.

147.2.3.2. Single fibroid larger than 03 cm in size.

147.2.3.3. Any fibroid causing distortion of endometrial cavity.

147.2.4. Adenomyosis.

147.2.5. **Adnexa**

147.2.5.1. Simple ovarian cyst 06 cm or more in size.

147.2.5.2. Complex ovarian cyst of any size.

147.2.5.3. Endometriosis.

147.2.5.4. Hydrosalpinx.

147.3. 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:-

147.3.1. 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.

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

Appendix F

(Refers to Paragraph 143)

QUESTIONNAIRE TO BE ATTACHED TO AFMSF–2

1. Menstrual History.
   - 1.1. Age of menarche.
   - 1.2. Cycle Length.
   - 1.3. Duration
   - 1.4. Blood Loss
   - 1.5. LMP

2. Gynaecological History. Answer in Yes or No and give age, if yes.
   - 2.1. Premenstrual Tension.
   - 2.2. Dysmenorrhoea (Congestive/ Spasmodic).
   - 2.3. Urinary Incontinence.
   - 2.4. Pelvic Inflammatory Disease.
   - 2.5. Breast Lump/ Operation.
   - 2.6. Medication e.g., Oral Pills etc.
   - 2.7. Any Gynaecological Surgery.

Date: (Signature of the Candidate)

COUNTERSIGNED

(Medical Officer)