

**INSTRUCTIONS TO THE COMPETENT MEDICAL AUTHORITY REGARDING PHYSICAL EXAMINATION OF CANDIDATES FOR APPOINTMENT IN OIL AND NATURAL GAS CORPORATION LIMITED.**

1. Before taking up the Examination of a candidate, please verify that you are examining the same person whose photograph has been attested by the authorised officer of the Personnel Department who has directed the candidate to you for the medical examination.
2. Advise the candidate to complete the statement and declaration duly signed, in the prescribed proforma in your presence.
3. Go through the information/declaration given by the candidate and make a note of anything significant relating to his physical fitness. Countersign candidate's declaration thereafter.
4. Procedures to be followed for observing various parameters and their significance has been given below:

**I. AGE:** Co-relate age as certified in the Birth date certificate with the appearance of the candidate and note if the candidate's age appears to be more than what is certified.

**II. HEIGHT:** The candidate's height will be measured as follows:

He will remove his shoes and be placed against the standard with his feet together and the weight thrown on the heels and not on the toes or on the sides of the feet. He will stand erect without rigidity and with the heels, calves, buttocks and shoulders touching the standard. The chin will be depressed to bring the vertex of the head level under the horizontal bar, and the height will be recorded in cms/inches.

**III. WEIGHT:** The candidate will also be weighed on a standard scale, and his weight recorded in Kilograms, fractions will be ignored.

A table of standard weight for various age groups in relation to height is given below as a guide:

**HEIGHT - WEIGHT TABLE**

**A. MALE (GENERAL) :**

Height in Cms.	(Weight in Kilograms)			
	(Age in Years)			
	18 – 22 years	23 - 27 years	28 - 32 years	33 - 37 years
	Kgs.	Kgs.	Kgs.	Kgs.
140-145	48	49	51	52
146-150	50	52	54	55
151-155	53	54	57	58
156-160	55	57	58	61
161-165	58	60	63	64
166-170	62	64	67	68
171-175	66	68	71	73
176-180	70	72	76	78
181-185	74	77	80	82
186-190	80	82	86	88

**Add 2 Kgs. in weight for every additional 3 cms. in height.**

**B. FEMALE :**

Height in Cms.	(Weight in Kilograms)			
	(Age in Years)			
	18 - 22 years Kgs.	23 - 27 years Kgs.	28 - 32 years Kgs.	33 - 37 years Kgs.
140-145	44	45	47	48
146-150	47	47	49	50
151-155	49	50	51	53
156-160	52	52	53	55
161-165	55	55	57	58
166-170	58	59	61	62
171-175	62	63	64	66
176-180	66	67	69	71
181-185	70	71	72	75
186-190	74	75	78	80

In the matter of co-relation of age, height, weight, and chest of candidates of Indian race, it is left to the discretion of the medical authority to use whatever co-relation figures are considered most suitable. The medical authority will be empowered to marginally relax the standards so long as such relaxation does not impede the performance of the job.

**IV. CHEST:** The candidate's chest will be measured as follows:

He will be made to stand erect with his feet together and to raise his arms over his head. The tape will be so adjusted round the chest that its upper edge touches the interior angle of the shoulder blades behind and lies in the same horizontal plane when the tape is taken round the chest. The arms will then be lowered to hang loosely by side, and care will be taken that the shoulders are not thrown upwards or backwards so as to displace the tape. The candidate will then be directed to take deep inspiration several times and the maximum expansion of the chest will be carefully noted and the minimum and maximum will then be recorded in centimeters. In recording the measurements, fractions of less than one centimetre should be ignored.

**V. EYES:** The candidate's eyes will be examined in detail in accordance with the following rules. The result of each test will be recorded.

- a) **Acuity of vision :** The naked eye vision of the candidate shall be recorded, as it will furnish the basic information in regard to the condition of the eyes.

The standards for distant and near vision with or without glasses shall be as follows:

Distant Vision		Near Vision	
Better eye	Worse eye	Better eye	Worse eye
(1)	(2)	(3)	(4)
6/9	OR 6/9	0.6	0.8
6/6	6/12		

**NOTE :**

When the age of the candidate at the time of first appointment is 35 years or more the corrected visual acuity will be reduced by one step i.e.

Distant Vision		
Better eye		Worse eye
(1)		(2)
6/12	OR	6/12
6/9		6/18

**NOTE :**

i) In respect of new appointees in the Drilling, Operations, Technical Services, the total amount of myopia (including the cylinder) shall not exceed – 4.00 D and total amount of Hypermetropia (including the cylinder) shall not exceed + 4.00 D.

ii) In case of Exploration Group and Non-Technical Personnel, above the age of 20 years, the total amount of myopia shall not exceed –6.00 D and the total amount of Hypermetropia shall not exceed +6.00 D, provided there are no degenerative changes in the vitreous or retina and where the disease is not likely to progress.

The total amount of myopia shall not exceed –6.00 D and the total amount of Hypermetropia shall not exceed +6.00 D in the case of those upto the age of 20 years.

iii) The candidate should have good Binocular Vision. For regular appointment one-eyed persons are to be regarded as unfit except in case of the erstwhile non-technical Class-IV posts.

**b) Fundus Examination:** In every case of Myopia and wherever possible, Fundus Examination should be carried out and results recorded. Fundus and media should be healthy and within normal limits. No degenerative signs of vitreous or choroidoretinitis should be present suggesting progressive Myopia.

Retinal diseases in diabetes, hypertension and atherosclerosis will be considered a disqualification for all categories.

In the event of a Pathological condition being present which is likely to be progressive and affect the efficiency of the candidate, he should be declared unfit.

**c) Field of vision :** Appointees having grossly affected field of vision or where it is likely to deteriorate further will be considered disqualified for all categories.

**d) Night blindness :** Acceptable in all categories, if curable (Vitamin A deficiency). Not acceptable in all categories, if congenital.

**e) Colour Vision :** Complete or partial colour blindness :

a) Acceptable for entrants to Materials Management, Personnel and Administration, Finance and Accounts Disciplines.

b) Not acceptable for all Technical Personnel, Fire Fighting Personnel, Drivers, etc.

The candidates ability to distinguish colours must be tested and recorded. Colour blindness is a disqualification for the following :

Whenever an employee suffering from colour blindness is posted or transferred into a category wherein colour perception is required, his eyes will be re-examined for the same along with the examination for visual acuity.



f) **Other ocular conditions:**

- ) Any organic disease or a progressive refractive error, which is likely to result in lowering the usual acuity, shall be considered as a disqualification.
- ii) Trachoma: Trachoma unless complicated shall not ordinarily be a case for disqualification.
- iii) Squint: For technical services/skilled jobs, where the presence of Binocular vision is essential squint even if the visual acuity is of the prescribed standards should be considered as a disqualification. For other services, the presence of squint should not be considered as a disqualification if the visual acuity of each eye is of the prescribed standard.

VI) **CONTACT LENSES & INTRA - OCULAR IMPLANTS** : Correction with contact lenses and Intraocular Implants is not a bar for employment provided the prescribed standards are fulfilled.

VII) **EXAMINATION OF HEAD & NECK** : The examination of the head and neck will be made from above down-wards. The examiner will note the intelligence character of voice, power of hearing by his replies to the questions put to him.

- a) The **scalp** is examined for any blows and cuts on the head.
- b) The examination of the nose should reveal that the candidate is free from any infectious disease of the nose.
- c) **Throat** : State of tonsils - Slight Hypertrophy without evidence of repeated tonsillitis is not a cause for rejection. Enlarged tonsils cause temporary unfitness until treated with tonsillectomy. Throat palate, gums, jaws, temporomandibular joints and dentition should be within normal limits.
- d) **Glands** : Thyroid should be normal with no evidence of hypo or hyperthyroidism or generalised enlargement of lymph glands. Scars, if any, of the previous removal of tubercular glands should be normal and there must not have been any active diseases in the last five years. The movements of the neck should be free in all possible directions.

e) **Examination of Ears** :

- 1) The candidate should be free from any active disease of the ear. The candidate should be able to hear whispering voices separately in both the ears at a distance of 20 ft. in a quiet room. A candidate with doubtful hearing capacity will be sent for audiometry test to determine his hearing capabilities. If the disease is not progressive in nature, the candidate may be declared temporarily unfit and his hearing capacity tested again after 4 weeks.

2) Procedure for hearing test :

The examining Medical Officer will test the hearing standards, of a candidate in a quiet room. The test will be carried out with the medical officer and the candidate standing at a distance of 20 feet from each other. Both the ears will be examined separately. The ear not being tested will be marked by a marking apparatus or by rubbing a piece of paper against pinna by an attendant. The candidate will face at right angles the examining medical officer with the ear under examination facing him. He will use the whispering voice (whisper produced with the residual air i.e. to say after an ordinary expiration). The hearing will be considered normal if the candidate can reproduce the whisper.

3) Audiometry : As base line hearing capacity record in case of following trades :-

- i) Fitting
- ii) Diesel
- iii) Roustabouts/Mechanical Helper
- iv) Drilling / Production
- v) Electricians
- vi) Jr.Engineers/Chargeman Class III
- vii) Welders
- viii) A.E.E.(Mech.)/A.E.E.(Elect.) working in engine room/compressor room.

4. Hearing Defects :

- i) Bilateral Nerve Deafness - Not acceptable for all categories.
- ii) Unilateral Nerve Defects - Not acceptable in Drilling, Exploration, Operations, Technical disciplines, Fire fighting staff, Security and Drivers, except in case of Materials Management, Personnel & Administration, Finance & Accounts Disciplines.
- iii) It is absolutely essential to extend due regard to candidates privacy and decency. Every part of the body must be examined and if a candidate does not submit to this even after persuasion he should be rejected. A Staff Nurse or a Female Hospital Attendant will be present when female candidates are examined.
- iv) The candidate should now be made to walk at least 50 mtrs. to judge the locomotion (gait). The candidate is then advised to stand upright with feet apart and arms extended above head. The examiner should walk slowly round the candidate carefully inspecting the whole surface of the body. The following observations shall be made and recorded:-
  - 1) General physical development
  - 2) Formation and development of limbs
  - 3) Skin diseases
  - 4) Varicose veins
  - 5) Scars or Ulcers
  - 6) Tattoo marks
  - 7) Any special marks on account of congenital or post accidental cases.

**NOTE:**

1. Candidates suffering from Leprosy or Chronic and Inveterate skin conditions will be declared unfit. Vitiligo cases are acceptable.
2. Candidates with advanced degree of varicosity of veins should be considered as a ground for temporary disqualification.
3. Congenital or acquired physical defects if any noticed will be recorded on the medical examination report with a clear information as to whether it is likely to interfere with the efficient performance of the duties for which the candidate is under consideration for employment.

The candidate is then directed to walk up and down the hall briskly 2 to 3 times, to hop about the hall on the toes of the right foot and then again on the toes of the left foot.

The examiner will observe :-

1. The power and range of movements of joints including gait.
2. The flatness of feet.
3. Formation of the toes.

#### **VIII) EXAMINATION OF THE TRUNK :**

The trunk will be examined from below upwards. The candidate will stand with his arms extended over head, the hands being in contact. The Medical Officer examines:

- a) The abdominal and parietes of the chest. He instructs the candidate to take in a full breath several times while he watches the action and notes the expansion of the chest. Careful stethoscopic examination of the lungs is made.
- b) The heart sounds, the heart rate, and its functions, size, etc are noted.
- c) Any enlargement of the spleen or liver is noted.
- d) Indication of venereal diseases are observed.
- e) The scrotum is examined to ascertain if the testicles have descended and are normal or if there be veriocele, Hydrocele or other diseases.
- f) Signs of Hernia are looked for by inserting the point of the finger into the external abdominal ring of each side and instructing the candidate to cough 2 to 3 times.
- g) The candidate is examined for Haemorrhoids, Fistulae, Condylomata etc. For this purpose the candidate is instructed to turn with his back towards the Examiner, stoop down and separate the buttocks with his hands and strain down gently.

The examination of the perineum and of the genitalia may be deferred until the end if considered desirable.

1. The candidate's chest should be well formed with several sufficient expansions and his heart and lungs should be sound.
2. The enlargement of spleen and liver should be investigated for any chronic diseases. Candidates with chronic diseases should be considered temporarily unfit or unfit depending upon the nature and severity of the disease.
3. There should be no evidence of any abdominal disease.
4. Venereal Diseases : Candidates who have suffered or are suffering from V.D. will not be declared fit unless detailed examination of urethral smear and serology tests prove negative.
5. Un-descended testicles should be considered a disqualification only when situated within the inguinal canal or at the external abdominal rings.
6. The candidate should not have suffered from Hydrocele, a severe degree of varicocele, varicose veins or piles.
7. Hernia: Candidates with Hernias will be considered temporarily unfit and will be re-examined after surgical treatment.

#### **IX) UPPER EXTREMITIES :** The examination of the upper extremities will be made from below upwards. The following directions are given to the candidates :-

- a) Stretch your arms with the palms of your hands upwards.
- b) Bend your thumbs across the palms of your hands.
- c) Bend the fingers over your thumbs.
- d) Bend your wrists backwards and forwards.
- e) Bend your elbows



- f) Turn the back of the hands upwards.
- g) Swing your arms around your head.

This examination will give an indication of defects of the wrists, elbows, shoulder joints, relational movements of the forearms.

**X) LOWER EXTREMITIES AND BACK :** The Inspection of the lower extremities and back will be made from below upwards. The candidate first faces the medical examiner and afterwards turns his back towards him. The following directions are given to the candidate:-

- a) Stand on your right foot, put the left forward.
- b) Bend the ankle-joint and toes alternately backwards and forwards.
- c) Repeat with the other foot.
- d) Kneel down on one knee.
- e) Up again
- f) Kneel down on the other knee.
- g) Up again
- h) Down on both knees and up from that position with a simultaneous spring on both legs.
- i) Turn round and separate the legs.
- j) Touch the ground with the hands.

This examination indicates any defects of the toes, ankles, knee joints and of the spine.

Deformities of the Spine, Knock knees, Flat foot and Hammer Toes may disqualify the candidate depending upon the severity and nature of duties expected to be performed by the candidate.

**XI) PULSE :** The candidates pulse is felt and its rate and rhythm as well as any other abnormality noted. The candidate, otherwise fit, who is found to have, when sitting, pulse rate persistently over 100 but responding well to the exercise tolerance test should be attended by the Medical Officer who should re-examine him the following morning. If on re-examination, the pulse rates is less than 100, he should be accepted. If still over 100, he should be declared unfit.

**XII) BLOOD PRESSURE :** The medical authority will use its discretion regarding Blood Pressure. A rough method of calculating normal maximum systolic pressure is as follows:

- i) With young subjects 15-25 years of age the average is about 100 plus the age.
- ii) With subjects over 25 years of age the general rule of 110 plus half the age seems quite satisfactory.

N.B. As a general rule any systolic pressure over 140 and diastolic over 99 should be regarded as suspicious and the candidate should be hospitalised by the Competent Medical Authority before giving his final opinion regarding the candidate's fitness or otherwise. The hospitalization report should indicate whether the rise in blood pressure is of a transient nature due to excitement etc., or whether it is due to any organic disease. In all such cases, X-Ray, and electrocardiographic examinations of heart and blood Urea test should also be done as a routine. The final decision as to fitness or otherwise of a candidate will, however, rest with the Medical Authority only.

**XIII)** The candidate should also be examined in lying down position (Supine) to feel for any masses, renal swelling, tenderness or any other abnormality in the abdominal cavity.

**XIV) Examination of Reproductive System (For Female candidate only):**

The following angles/examination shall be carried out in respect of female candidates and abnormalities/diseases if any, to be noted :-

1. History of Menstrual Cycle : Regular/Irregular
2. Breasts
3. Per abdomen examination :
4. Per Vaginal Examination : If necessary
5. Per Speculum Examination :

**XV) Pregnancy:** If at the time of medical examination, a candidate is pregnant of 12 weeks or more, she shall be declared temporarily unfit until she has completed 6 weeks after confinement. After confinement, the candidate shall be required to produce a medical certificate of fitness from a Registered Medical Practitioner before being called for a final medical examination.

**XVI) Fits:** The medical authority will question the candidate carefully in order to elucidate history of Epilepsy. Candidates suffering from epilepsy will be declared unfit. Those suffering from epileptic attacks are dangerous in certain occupations like Drivers, Crane Operators, Mechanics, Fire Brigade, Security duties and shop floor jobs where moving machinery may cause risk to life if they suffer from a fit in the vicinity. They will be declared unfit.

**XVII) Investigations:** The following investigations should be carried out as a matter of routine in all cases. The reports of these investigations should be a guide to assess the candidate for his fitness, unfitness or temporary unfitness.

1. Blood examination
  - a) Haemogram with E.S.R.
  - b) Group-Blood group
2. Urine
3. E.C.G.
4. Skiagram Chest
5. Blood Sugar - Fasting
6. Pap smear report (in case of female candidates)
7. Other investigations
  - a) X-ray lumbo sacral spine (A.P. and Lateral) and orthopaedic surgeons opinion should be obtained in respect of the following trades :
    - i) Roustabouts
    - ii) Rigman
    - iii) Topman
    - iv) Drilling Asstt.
    - v) Asstt. Driller
    - vi) Driller
    - vii) A.T.(P)
    - viii) J.T.(P)
    - ix) Chargeman (P)
    - x) J.E.(P)
    - xi) Drilling and Production
    - xii) Junior Assistant Technician
  - b) Caloric test or nystogmogram should be carried out in case of employees required to be posted on floating vessels/supply vessels/ M.S.V.S./Rigs/Geotechnical and Survey vessels/M.D.T. Vessels.



**NOTE :**

- i) Any abnormal findings on investigations should be noted. Depending upon the nature and the extent of the abnormality the tests may be either repeated or the candidates may be declared fit, unfit or temporarily unfit.
- ii) A candidate having abnormally high blood sugar should be considered unfit.