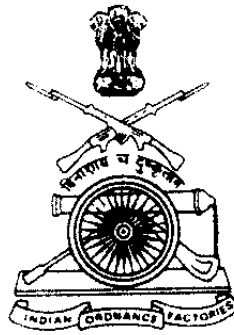


**GUIDELINES ON
PRE-EMPLOYMENT MEDICAL
EXAMINATION**

IN

ORDNANCE & ORDNANCE EQUIPMENT FACTORIES



ORDNANCE FACTORY BOARD

MINISTRY OF DEFENCE

(Department of Defence Production)

10A, SHAHEED KHUDIRAM BOSE ROAD

KOLKATA-700 001

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Issued By:

Director General, Ordnance Factories,
Calcutta

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Foreword

It has been a long felt need that this Organisation should have its own guideline on Pre-employment Medical Examination. Till now the examining authority has been banking on the standing instructions on the subject and their clinical acumen to ascertain the fitness of candidates for a particular job. Since there is scope for individual discretion, as an Organisation, that has been telling on the consistency of the outcome of the Pre-employment Medical Examination carried out in different Ordnance & Ordnance Equipment Factories spread across the country.

It is a great pleasure to find that a fantastic job has been done by the Committee under the Chairmanship of Dr. B. Rajendran, CMO, Ordnance Factory, Bolangir with Shri Gurudutta Ray, Director, Industrial Relations (IR), Ordnance Factory Board, Kolkata, Dr. S. Halder, Deputy Director Health Services, Ordnance Factory Board, Kolkata and Dr. (Ms.) P. Bandyopadhyay, Specialist Medical Officer, Grade-II (Senior Scale), Metal & steel Factory, Ishapore, as members.

This document should be used as a guideline for Pre-employment Medical Examination and must be made available with all the individuals concerned with conduct of Pre-employment Medical Examination in Ordnance & Ordnance Equipment Factories.

*(P. K. Misra)
Director General, Ordnance Factories &
Chairman, Ordnance factory Board*

Kolkata, the May, 2006

Contents

1. GENERAL GUIDELINES	11
INTRODUCTION	11
Need for guidelines	11
Purpose of the Guidelines	12
Recent developments affecting Pre-employment Medical Examinations	12
STATEMENT OF PRINCIPLES	13
Medical officer as the Medical Examiner	13
Legal Issues	13
Ethical issues	13
Principles of beneficence and non-maleficence	13
Conduct	13
Competence	14
Professional independence	14
Autonomy/Free and informed consent	14
Professional secrecy / Confidentiality	14
Bolam's principle	15
PURPOSE / OBJECTIVE	16
Employer's Concern	16
Primary Purpose/ Objective	16
Notion of relevancy	17
THE CONDUCT OF MEDICAL EXAMINATIONS	18
1. Prior instruction to the candidates	18
2. Request for pre-employment medical examination	18
3. The identity of the person to be examined	18
4. Occupational and medical history	19
5. Physical examination	19
6. Investigations	19
7. Referrals	20
8. Assessment of Fitness	20
9. Result	23
10. Report	23
11. Immunisation requirements for candidates	23
12. Preventive health care advice/measures	24
13. Information to candidate	24
14. Maintenance of records	24
OTHER ISSUES	25
Medical Officers authorized to carry out pre employment medical examination	25
Appeal by the candidate declared unfit against the findings of the medical authority	25
Re-examination on change of job	25
2. STANDARDS	26

INTRODUCTION	26
Conditions which make candidates unfit for job	26
GENERAL	27
Height	27
Weight	27
Chest expansion and Girth	27
Body Temperature	28
Mouth	28
Lymph Nodes	28
ENT	29
Ear	29
Hearing	29
Nose	29
Throat	29
CARDIO VASCULAR SYSTEM	30
Pulse	30
Evaluation	30
High BP	31
Low BP	31
Heart Size	31
Malposition of the Heart	31
Vascular System	31
Varicose Veins	32
RESPIRATORY SYSTEM	33
• Lung abscess or empyema	33
• Pneumothorax	33
• Chronic obstructive pulmonary disease	33
• Bronchial Asthma	33
• Chronic bronchiectasis	33
• Pneumonectomy / Lobectomy	33
• Pulmonary tuberculosis	34
• Evidence of past TB	34
• Known occupational lung disorder	34
• Other conditions	34
GASTRO INTESTINAL SYSTEM	35
• Peptic Ulcer	35
• Others	35
GENITO-URINARY SYSTEM	36
MENTAL DISORDERS	36
CENTRAL NERVOUS SYSTEM	37
• Gait	37
• Epilepsy	37

• Cerebro vascular accident	37
• Speech	38
EXAMINATION OF THE EYE	39
• Acuity of vision.	39
• Classification of Jobs for Visual Standards	39
• Standard of Visual acuity with or without glasses will be as follows	40
• Myopia	40
• Hypermetropia	41
• Radial Keratotomy	41
• Excimer laser treatment for reducing the power of spectacles	41
• Contact lenses	41
• One eyed person	41
• Squint	42
• Colour Blindness	42
• Night vision	43
• Field of vision	43
• Cataract	43
• Other conditions	43
VENEREAL DISEASES	43
SKIN DISEASES	44
• Allergic contact dermatitis	44
• Leprosy	44
• Atopic dermatitis (endogenous eczema)	44
• Chronic dermatitis	44
• Congenital ichthyosis	44
• Albinism	44
• Haemangioma	44
• Vitiligo	44
• HIV testing	44
PERSONS WITH DISABILITIES	45
CONTAGIOUS AND INFECTIVE DISORDERS	45
Haematopoietic and Lymphatic	45
ENDOCRINE DISORDERS	46
• Diabetes Mellitus	46
• Thyroid	46
• Other endocrine disorders	46
TUMOURS AND MALIGNANT DISEASE	47
• Malignant tumours	47
• Benign tumours	47
• Other Conditions	47

EXAMINATION OF FEMALE CANDIDATES	47
• Pregnancy	47
MUSCULO-SKELETAL SYSTEM	48
• Head and Skull	48
• Neck and Cervical Spine	48
• Thoracic/lumbar/sacral Spine	48
• Extremities	48
CATERING STAFF	49
3. TESTING PROCEDURES	50
List of equipment required for pre-appointment medical examination	50
Peak Flowmetry	50
Measurement of Height	50
Measurement of Weight	50
Blood Pressure	50
Near vision method	50
Distant vision Method	50
Visual field	51
Colour Vision	51
Speaking voice test	51
Tuning Fork Test	51
Rinne's Test	51
Weber's Test	51
4. PROFORMA OF REQUISITION FOR PRE-EMPLOYMENT MEDICAL EXAMINATION	52
5. EXAMPLES OF WORKING CONDITIONS	55
6. MODEL PRE-EMPLOYMENT MEDICAL EXAMINATION FORM	57
7. PROFORMA FOR PRE-EMPLOYMENT MEDICAL EXAMINATION REPORT	67
8. CONCLUSION	68

GUIDELINES ON PRE- EMPLOYMENT MEDICAL EXAMINATION

1. GENERAL GUIDELINES

INTRODUCTION

Need for guidelines

Pre-employment medical examination is a part of the recruitment process of candidates for jobs and is conducted in the final stage of this process. Job applicants are required to fulfil requirements in terms of qualification and experience as well as passing the pre-employment medical examination. The qualification and experience, as well as the selection process, are normally well defined. However, the medical fitness assessment and the interpretation of “Fitness” is left largely to the discretion of the medical officer.

Though there are Govt. orders/decisions on the subject, there are no comprehensive guidelines to assist the medical officers in conducting pre-employment medical examination. Consequently, there are wide differences in medical standards and pre-employment medical examination procedures followed by various Ordnance Factory hospitals and individual medical officers. The medical officers do not seem to adhere to any explicit or uniform criteria in performing this task. There is also lack of uniformity in the information collected through history, physical examination protocol, investigations carried out and the forms used. When a candidate is detected to suffer from any disease or disability there is often confusion and controversy in deciding whether the disease or disability renders the candidate unfit for the job.

Further, there is lack of occupational focus in carrying out the pre-employment medical examination. Medical officers performing such examinations are often not provided with and do not take into consideration information regarding the special requirements of medical fitness for the job, which the candidate will be carrying out, the occupational health and safety hazards at the workplace, and specific features of working conditions.

The context and the methods they use to conduct these examinations lay medical officers open to ethical and legal questions, which have not been fully dealt by any instruction at present.

The medical boards or medical officers from other organisations called upon to give second medical opinion are also similarly constrained.

When a candidate is declared medically unfit for the job, factory management often receives representation from the candidate for reconsideration and has to take a decision against the background of contradictory medical opinions from factory MO and civil Govt / private medical officers, and also representations from trade unions and other sources. Though Govt orders exist on the subject, there is no comprehensive guideline to help the management to take a reasoned decision.

Consequently, pre-employment medical examination, as being conducted in OF organisation at present does not fully meet the objectives. It has, therefore, become necessary that organisational guidelines be developed for pre-employment medical examination of candidates for employment in Ordnance Factories Organisation.

Purpose of the Guidelines

These guidelines aim to provide medical officers with guidance concerning pre-employment medical examinations. These guidelines seek to reduce wide differences in medical requirements and examination procedures and to ensure that medical certificates which are issued to candidates are a valid indicator of their medical fitness for the work they will perform. Ultimately, the aim of the guidelines is to contribute to improved health and safety of employees. To achieve the above purpose these guidelines address the following objectives:

1. To describe the specific characteristics that distinguish pre-employment medical examination from those in everyday clinical practice
2. To determine what information medical officers should possess to properly discharge their professional obligations when carrying out pre-employment medical examination
3. To determine the relevant legal and ethical issues involved in pre-employment medical examination
4. To describe the role of medical officer as the medical examiner
5. To study recent concepts and developments in practice affecting pre-employment examinations and to adapt them
6. To describe the methodology of pre-employment medical examination
7. To lay down fitness standards for various jobs
8. To prescribe various forms to be used in connection with pre-employment medical examination

These Guidelines are intended for use by medical officers, administration authorities, and others concerned with the conduct of pre employment medical fitness examination of candidates.

Recent developments affecting Pre-employment Medical Examinations

There is need to adapt to new policies bringing in changes in the present practice of pre-employment medical examination. To cite a few developments paving the way to change:

- Ensuring equal opportunities for people with disabilities and their full participation in the nation building. - The Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995
- The concept of pre-placement medical assessment has replaced that of the pre-employment medical examination. . The first concept is broader, and also includes examinations done when job-related tasks are reassigned or reorganized, whereas the latter is a limited, one-time activity.
- The pre-placement medical assessment is part of an ongoing process of medical monitoring when a job involves health risks.

Although we elected to use the term pre-employment medical examination in this document, it should be noted that it extends to the concept of pre-placement medical assessment.

STATEMENT OF PRINCIPLES

Medical officer as the Medical Examiner

A medical examiner is defined as a medical practitioner tasked with examining his patient/candidate for reasons other than for diagnosis and treatment, usually for statutory, regulatory or forensic reasons.

In order to meet the objectives of pre-employment medical examination, it is essential that the examining doctor be familiar with the physical and mental requirements of the job and the health status of the applicant.

Legal Issues

Government instructions require every candidate for appointment to a post (including appointment on part time basis) under Government to produce a medical certificate of fitness from the appropriate medical authority except in cases where the appointment is made specifically for a period not exceeding three months in a non-pensionable establishment.

Pre-employment medical examination is not, otherwise, a legal requirement except for those employees who will be employed in hazardous processes. Factories Rules formulated by State Governments under Factories Act, oblige such employees to have their fitness to work certified by certifying surgeon, when they are appointed, and periodically during the course of employment.

The Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995 has been referred to above.

Ethical issues

The pre-employment medical examination and the acts the medical officer performs within this mandate do indeed come under the practice of medicine and are subject to Code of ethics. These amount to obligations with respect to his conduct, professional independence, competence, respect for professional secrecy and free and informed consent. However, the principles of beneficence and non-maleficence do not apply.

Principles of beneficence and non-maleficence

Medical ethics call for attitude of beneficence (Do good) and non-maleficence (Do no harm) on the part of the medical officer when patients consult them. Indeed, this attitude forms the basis of the doctor - patient relationship. It requires that the medical officer place the protection of his patient's interest above all other considerations.

This benevolence principle is not applicable in the context of pre-employment medical examination. A doctor conducts medical examination of a job applicant on the request of the potential employer. In carrying out the examination, the doctor becomes an agent of the employer. The usual doctor - patient relation does not exist.

Conduct

The medical officer must at all times display a professional attitude and project an image of competence and objectivity. The medical officer is also obliged to be discreet.

Competence

Although all doctors are trained to conduct medical examination, not all are familiar with occupational health issues sufficiently to allow them to conduct the pre-employment medical examination effectively. Some training in occupational health is considered essential for all doctors who are involved in conducting pre-employment medical examination and in the care of the working population.

It is incumbent upon every medical officer to keep his knowledge in his field of practice up to date. He may update his knowledge through continuing education activities on the subject of occupational health and related spheres of activity, and by soliciting the opinion of consultants, when necessary.

Professional independence

The medical officer must safeguard his professional independence and reject any external attempt to influence his assessment process or opinion. He is required to give his recommendations without fear or favour. He must therefore display the strictest objectivity in his assessment and be ready to justify his opinion.

Autonomy/Free and informed consent

The ethical principle of autonomy requires the examining doctor to obtain consent from the candidate, not only with regard to ensuring that the candidate freely submits himself to the examination and is willing to undergo investigations but also with regard to the disposal and consequences of the results of the examination and test results.

Such consent is implied when the candidate reports for medical examination on referral by the authority concerned. However, before beginning to assess the candidate, the medical officer is advised to clearly explain the context of the assessment, its purpose and his role in it. He must make sure that the candidate fully understands all aspects of the assessment. A written consent is not obligatory.

However, if the candidate refuses to consent or objects to medical examination or any part of it, the medical officer is advised not to proceed with the medical examination or the part of it to which the candidate withheld consent. Under such circumstances, it may not be possible to give opinion.

Professional secrecy / Confidentiality

Even when mandated by a third party such as an employer, the medical officer is still bound by professional secrecy. In his report to the employer, the medical officer will limit himself/herself to the subject of fitness to work.

The ethical principle of confidentiality requires that the candidate gives consent to the medical examiner to allow the employer to have access to the details of the medical examination and investigation results. Disclosure of such information is justified only in light of specific job requirements, where more specific information is needed in order to make a decision on the status of the applicant. In such circumstances, specific consent for releasing that information should be obtained from the candidate.

Release of information may also be required for reasons of public health or safety, in which case consent of the person is not mandatory. Other persons such as his well-wishers, trade union

representatives cannot have access to medical information about the candidate without consent of the candidate.

Bolam's principle

The doctor cannot be deemed to be in dereliction of his professional duties if what he is doing has his peers' professional support even if there is another body of opinion that the certification and examination could be done in another manner.

PURPOSE / OBJECTIVE

Employer's Concern

The employer's expectation from the pre-employment medical examination may be dual-purpose.

1. Productivity and Efficiency

The employer would legitimately like to count on the candidate's assiduous, continuous and effective attendance at work

2. Cost

In the case of candidates for permanent appointment, early pension or payment may have to given in case of premature death.

Every worker's compensation incident costs money in terms of employee training/ retraining, administrative time, loss of production, equipment damage, and employee morale, not to mention the actual claim cost. The cost of medical treatment is escalating. As government service provides extensive free medical coverage, there is concern about employing job applicants who suffer from medical conditions that has high medical cost potential.

Primary Purpose/ Objective

The ILO and WHO recommend "Adoption of work to man and each man to his job". It is therefore imperative that while assessing physical fitness, the ability rather than disability should be a guiding factor. With the advances in modern medicine, there are few ailments which are likely to form absolute contraindications for employment. Unrealistic and needlessly stringent standards of physical fitness for employment defeat the purpose of pre-employment examination, prevent maximum utilisation of the vast available work force and burden the society to support them.

The medical officer should not base the content of the assessment on an evaluation of the probability of the employee's regular attendance at work, which he cannot in fact guarantee. The purpose is not to identify and employ only – super workers, who are free from any disease or disability and will never have a medical problem or accident.

The primary purpose of pre-employment medical examination is determination of the medical fitness of individuals to carry out essential functions of their occupations safely with minimal risk to themselves, fellow workers, and the public, including the ability to work while wearing protective equipment, and to identify small number of individuals who do not meet these requirements and prevent them entering into a career unsuitable to them.

Pre-employment medical examination has the following major objectives

1. Ability

- To determine whether the applicant has the physical requirements required to be able to perform the inherent requirements of the job
- To ensure that the applicant has no pre-existing medical condition that would prevent him or her from performing essential tasks involved in a given job.

2. **Safety** - To ensure that the applicant has no pre-existing medical conditions that could result in sudden incapacitation that can lead to an accident, especially, for safety positions. Safety position is a job in which incorrect decision and/or action by the incumbent would result in an incident with high potential of injury, plant and environmental damage, harm to company reputation and financial loss. Examples of such a position are driving, piloting, climbing, working at height or over a body of water, etc. In these positions, sudden incapacitation would expose the worker himself and his colleagues to great danger.

3. Health status

a) **Job related** - Pre-employment medical examination is a means to

- Establish baseline health data against which future health status of the worker be compared to detect the effects of harmful working conditions and advise corrective measures
- Identify existing medical conditions which could be adversely affected by occupational exposures.

b) **General** - The results of the examination are useful

- To advice individuals in the maintenance or improvement of their health
- To establish a baseline record of the general health condition of the individual
- To take measures to correct or mitigate medical conditions which could adversely affect the health of candidates
- To take measures of a preventive character e.g. tetanus prophylaxis

Notion of relevancy

The 'Notion of relevancy' means in conducting pre-employment medical examination, the medical officer must ensure that the information sought and obtained through the questionnaire, examination and additional examinations will be relevant the health requirements needed to perform the duties of a given job, and the work related risks. He should not submit the candidate to an exhaustive history-taking and physical examination to obtain information not necessarily relevant to his state of health.

THE CONDUCT OF MEDICAL EXAMINATIONS

The following procedures are suggested in order to bring about uniformity, effectiveness and efficiency in the conduct of pre-appointment medical examinations. They do not aim to replace in any way the judgement or experience of the medical examiner. A model medical examination form has been provided in the **Annexure D**.

A pre-employment medical examination provides an opportunity to prevent a person from embarking on a career unsuitable for his health condition as apparent at that time. It is therefore more stringent in nature than other types of medical examination. By its very nature, this examination may occur only once, and it is very important that the medical examiner conducts it thoroughly.

1. Prior instruction to the candidates

All individuals who are required to undergo pre-employment medical examination should be informed invariably in the appointment letter about the pre-employment medical examination. They should be advised to bring their past medical records including investigation reports. They should also be advised to bring at least six recent passport size photos for the purpose of medical examination.

2. Request for pre-employment medical examination

A model request form for pre-employment medical examination of candidates has been provided in the **Annexure C**. The request form is intended to provide the following information to the medical officer, which is essential for the proper conduct of medical examination.

- The candidate's intended job
- A sufficiently detailed, accurate and current 'job description' listing the specific tasks the worker will be required to accomplish
- Physical requirements of the job
- The health and safety hazards at the workplace
- Specific features of working conditions (a sample list of working conditions is provided in **Annexure F**).

If needed, medical officer may call for further information. He may also visit the job site to become familiar with the job and working conditions.

With this prior knowledge of the work involved, the medical officer should be able to tailor the pre-employment medical examination specifically to the requirements, in terms of health, to execute the work safely (for example, adequate vision, absence of pathology that could cause loss of consciousness), and to the known inherent risks associated with the job.

3. The identity of the person to be examined

- a) The medical officer should correctly identify the person presenting for the medical examination as the person whose name and particulars are on the medical examination form.
- b) At least two important marks of identification must be noted and described in detail. The description should include all relevant particulars e.g. mole - the situation with reference to anatomical landmark, size, colour and other characteristics such raised or flat, fixed to skin or

free, hairy or non-hairy. When no distinct mark is available left thumb impression may be taken.

- c) Photographs of the candidate should be affixed in the medical examination form and report form and attested by the medical officer. The signature of the candidate is also obtained in these documents and attested by the medical officer.

4. Occupational and medical history

- a) A medical and occupational history questionnaire is the first step in acquiring necessary information from the prospective worker. The questionnaire should preferably be in non medical language covering personal information, personal history, known illnesses, surgical procedures, trauma, medication use, allergies, family history, health habit history, immunisation history and reproductive history. Symptoms review is also important for detecting early indication of illness.
- b) An occupational history should also be obtained to collect information about the person's past occupational and environmental exposures. It may lead to closer attention on potential occupational health hazards
- c) The questionnaire will be signed by the candidate as a declaration to certify it is a true statement, so that the onus of concealing any required information will be on the candidate. A thorough review, by the medical officer, is required to identify past illnesses and diseases that may prevent the individual from satisfactory performance of job requirements.
- d) The candidate's previous medical records, where appropriate, should be reviewed.

5. Physical examination

The physical examination and the necessary additional examinations should be carried out and recorded. Examiners will use their own discretion as to the scope of the physical examination and investigations in each case and will judge cases on their merits, taking into consideration the prospective duties of the examinee as also the age of the examinee and need for continued fitness for the remaining years of service.

6. Investigations

- a) Appropriate equipment (such as PEFR meters, Ishihara's chart etc.) should be used in the assessment of hearing capacity and visual acuity, colour vision etc particularly regarding those candidates whose job requires specific standards in this regard.
- b) Delegation of technical work to unauthorised persons (even doctors) must be avoided. All findings must be personally seen and recorded and decision given personally. The decisions given must be capable of being defended later.
- c) The medical officer should ensure that the blood and urine specimens collected, tested and reported upon belong to the person examined. The medical officer should get the tests done in his presence to the possible extent. He shall bear the responsibility to ensure that the investigations and results/reports are not manipulated by the candidate or other interested parties.
- d) The following tests are recommended for applicants for all type of jobs:

- Haemoglobin.
- Urine – albumin, sugar.
- Random blood sugar
- PEFr
- Chest X-ray - should be done as a routine in all cases for detecting any abnormality of the heart and lungs which may not be apparent by ordinary physical examination.
- Pregnancy diagnostic test (all the female candidates).

e) Additional tests are to be conducted if clinically indicated and if work exposures require certain tests to be done to establish baseline data based on the exposures at work. The following are examples of tests related to work exposures:

- ECG
 - *for those who have abnormal cardiovascular findings such as hyper-tension, tachycardia and bradycardia.*
 - *For certain jobs involving public safety like drivers, OMHE*
 - *If age > 35*
- Pregnancy test for female applicants.
- HbsAg – for nursing and paramedical staff
- Complete blood count – chemical exposure
- Liver function tests– chemical exposure
- Renal function tests - chemical exposure
- Audiometry - if the workers are exposed to noise level of more than 90dB, hearing impairment
- Spirometry – dusty or fummy work environment, suspected lung disease

7. Referrals

- a) At times, when a medical condition/ abnormality is detected, it may become necessary to obtain investigations or opinion of the specialists. The individual may be referred to an authorized medical facility for the same. The patient will be referred only for investigation or opinion regarding the medical condition/ abnormality and not for opinion regarding fitness for the job. It is the responsibility of the factory medical officer to give opinion regarding fitness taking into consideration the investigation result/ opinion of specialist.
- b) In difficult cases, the medical officer may consult specialists of their hospital, senior colleagues or medical officer I/C of the hospital.
- c) Under no circumstance, opinion of an outside medical officer or specialist should be sought or accepted regarding fitness.

8. Assessment of Fitness

General principles

- *The assessment of a candidate's fitness to work must focus on the candidate's state of health at that particular time.*

For example, a person should never be excluded because he or she was treated in the past for tuberculosis or neoplastic pathology, if the treatment eradicated tuberculosis or the neoplasm,

even though theoretically, there is a risk of recurrence in the more or less distant future. Standards of physical fitness are provided in **Annexure A**.

- *The recommendation for an applicant's medical suitability is based on the results of the exam in relation to the requirements of the job.*
- *Applicants will not be medically disqualified on the basis of a diagnosis or disease or disability unless*
 - *It renders the candidate unfit for carrying out the essential functions of the job, or may reasonably be expected to render the candidate unfit to continue to perform the essential functions of the job.*
 - *The job (work exposure/ environment) is likely to aggravate the disease*

In making the assessment, function is more important than diagnosis and individual case-by-case determination is more important than broad exclusions based on diagnosis.

Risk to co-workers, the company, and the candidate (job applicant) have to be significant and scientifically, statistically or medically proven. It cannot be simply hypothetical or negligible. This requirement attempts to prevent candidates from being excluded on the basis, for example, of a radiological anomaly that has no clinical correlation and which is associated with a favourable prognosis.

If the candidate is found to be suffering from a disease (e.g. epilepsy) /risk factor (e.g. hypertension) which carries risk of disease or injury in future, the following should be considered in determining the fitness:

- A. The examination, test or procedure used to evaluate a candidate against the standard has a high predictive value and is the most accurate test that is feasible to use.
 - B. The results of the test or procedure are unequivocal.
 - C. The injury or illness to which the candidate is predisposed is severe.
 - D. There is a high probability that the candidate will develop an injury or illness.
 - E. The candidate's individual risk of illness, upon which the exclusionary practice is based, represents a significant variation from the general population.
 - F. The adverse effects on health of the candidate will be manifested in the reasonably foreseeable future.
- *The age and experience of the person to be examined, and the nature of the duties to be performed should be considered.*

The standard may be different for different age groups as the expected period of service will be different. The individual may have a medical condition that may impose difficulty in doing the job in general, but, if the individual has already made adaptations to overcome the condition and has been doing the job this should be considered.

Impairment / disability

The medical officer can categorize the individuals with physical or mental impairment as having stable impairment, progressive impairment and intermittent impairment. This will help to deploy the person in a suitable job.

Stable Impairment

Stable impairment that causes some limitations but is unlikely to progress or be worsened by job activity if the employee is properly placed. Some of the examples are

- Amputations
- Ankylosis
- Blindness
- Deafness
- Residual effects of poliomyelitis

For these conditions the major consideration is whether the employee can perform the job with reasonable efficiency and safety and without undue stress or harm himself and to others.

Progressive Impairment

The examples of progressive conditions are:

- Chronic obstructive lung diseases
- Congestive cardiac failure
- Arthritic diseases of spines

Although placed in sedentary work; progression of the condition may make necessary a future rehabilitation in less demanding job.

Intermittent Impairment

Examples of intermittent impairment are

- Uncontrolled and inadequately treated epilepsy
- Poorly controlled diabetes.

Employees with these conditions suddenly could become unable to perform their job and become a grave risk to himself/herself and to co-workers.

Certain impairments are likely to become worse by work exposure and examples of these are chronic skin diseases such as psoriasis, certain eczemas and liver disorders. These are likely to be worsened when they are placed in jobs that may involve solvent exposure.

Determining if a person with disability can carry out the inherent requirements of a job

In determining whether or not a person with a disability can carry out the inherent requirements of a job, the employer is required to take into account:

1. The Government guidelines on the subject of employing handicapped persons (List Of Identified Jobs For Person With Disabilities Notified by Ministry Of Social Justice & Empowerment)
2. The person's past training, qualifications and experience relevant to the particular employment

Many people with a disability can perform jobs without any need for accommodation. But there are others who are excluded from jobs, which they are capable of doing simply because of unnecessary barriers in the workplace. Reasonable accommodation - any modification or adjustment to a job, an employment practice, or the work environment - makes it possible for an individual with a disability to enjoy equal employment opportunity and overcome physical and other barriers that restrict his/her employment opportunities.

Where the provision of accommodation imposes an unjustifiable hardship on the employer, the employer is not obliged to provide it and the candidate has to be **disqualified**.

9. Result

Result categories for pre-employment medical examinations are:

- a. Medically fit for the job
- b. Medically temporarily unfit for the job
- c. Medically unfit for the job

If the candidate is found fit for the job, this opinion may take any of the following forms:

- a. Unconditional acceptance of the applicant
- b. Fitness despite the presence of limitations not entirely incompatible with the job, accompanied by a description of these limitations
- c. Fitness conditional upon aids such as glasses for refractory errors, hearing aid, callipers because of incompatible limitations.

10. Report

The report regarding fitness of the candidate for the job will be forwarded to the authority who requested the assessment. A model report form is provided in **Annexure E**.

The candidates found to be temporarily unfit will be intimated in writing by the Medical Officer that they are temporarily unfit stating the reason, the nature of treatment/medical evaluation to be completed and the date of next medical examination. The authority requesting the medical examination will only be intimated through report form, as in Annexure E.

If the candidate is found permanently unfit for service, the admin. authority will inform the candidate, as per Government instructions regarding the unfitness and advice on the right to appeal and how to make an appeal.

The candidates who are found to have medical abnormality the same should be disclosed to the candidate alone (see below under 'information to candidate'). It cannot be stressed too strongly that the details of the medical examination are strictly confidential and this fundamental basis of the doctor patient relationship should not be violated. The medical officer should not release this information to the third party without the consent of the candidate except when directed by a court of law.

The medical officer need not mention the diagnosis in his report, unless the candidate's condition requires it health and safety of the candidate or others. Under these circumstances the diagnosis can be disclosed even without the consent of the candidate, since under the terms of the Code of ethics there is "a just and imperative motive related to the health of the patient or the welfare of others."

11. Immunisation requirements for candidates

- a) The candidate's vaccination record should be examined.
- b) All candidates should be enquired about their vaccination status against Tetanus and those who are not immunised or whose immunisation status is doubtful should be immunised against tetanus.

c) Health care personnel who are HbsAg negative will be vaccinated against Hepatitis B.

12. Preventive health care advice/measures

As appropriate, the candidate should be counselled on lifestyle (to limit alcohol intake, stop smoking, modify diet, lose weight, etc.), on the dangers and methods of prevention of malaria, hepatitis, HIV/AIDS⁷ and other communicable diseases. Printed health educational materials on drug and alcohol abuse prevention, smoking cessation, diet, communicable diseases prevention, backache prevention etc. should also be provided, as necessary.

13. Information to candidate

- a) The contents of the medical examination form and report form should be shown to candidate and his signature obtained on the report form. In case of unfitness, a copy of the medical examination form may be given to the individual for obtaining second medical opinion regarding the findings if required, to take it to the next medical examination or when he or she is treated for an illness or injury.
- b) The blood group and other vital information should also be given to the candidate to facilitate emergency treatment.

14. Maintenance of records

The medical examination records (requisition, medical examination form, report) should be clearly marked "**CONFIDENTIAL**".

While the record of pre-employment medical examination does not have the scope and meaning of the medical record of patients, it is nonetheless a record of medical acts and medical opinion. Thus, this type of record is subject to the same rules as the medical record and is protected by professional secrecy.

If a candidate were to bring an action against an employer to obtain damages, claiming that the latter's refusal is discriminatory because it is based on a handicap, the candidate would relinquish his right to confidentiality, the medical officer would no longer be obligated to professional secrecy, and the record would be rendered accessible.

The medical examination form along with requisition for the medical examination and a copy of the medical certificate should be kept in the files of the hospital and preserved for future reference.

OTHER ISSUES

Medical Officers authorized to carry out pre employment medical examination

For all non gazetted posts the pre employment medical examination will be carried out by medical officer of the rank of Senior Medical Officer or above. In case of non availability of any medical officer of suitable rank, the medical examination may be carried out by an AMO under the supervision of MO I/c factory hospital.

Female candidates will be examined only by female medical officer. If no female medical officer is available in the factory hospital, or in any of the Ordnance Factories in the station, then the medical examination will be carried out by a male medical officer in the presence of female nurse.

Appeal by the candidate declared unfit against the findings of the medical authority

Such cases will be treated as per the existing Govt instructions. The following points should be satisfied before considering the appeal

1. Whether the prescribed fee has been paid?
2. Whether the appeal was submitted within one month of the date of communication to him of the medical unfitness?
3. Whether the appeal contains specific possibility of an error of judgment on the part of medical officer who conducted medical examination?
4. Whether the above contention of the candidate is supported by a medical certificate from a qualified medical practitioner?
5. Does the medical certificate contain a note the effect that it has been given in after perusal of the copy of the medical examination document made available to the candidate?
6. Has the candidate enclosed a copy of the medical examination document provided to him by the medical officer examining the candidate?

The appeal may be decided by the General Manager in consultation with Medical Officers I/c.

If the appeal is accepted, the candidate will be directed undergo fresh medical examination. Such medical examination can be carried out by State Govt. medical board. The medical fitness standards and other relevant information as was furnished for the initial medical examination will be made available to the medical board.

Re-examination on change of job

When a serving employee is selected for appointment to a post requiring higher/ specific medical standard than that of the previous post, it is desired that the employee undergoes fresh medical examination to assess his fitness for the new job. This may particularly be necessary if employee is to be employed under hazardous jobs categorised under Factory rules. Under the above circumstances, he is not eligible for exemption from producing medical certificate of fitness for appointment to that post.

Employees with less than six years of service should be examined according to the standards of examination applicable on appointment. Employees with six years, or more of continuous service are eligible for relaxed standards wherever specified.

2. STANDARDS

INTRODUCTION

- The standards are based upon the definition of the tasks involved in the job tasks and associated working conditions and reflect the minimum qualifications necessary to effectively perform the essential function of the job.
- The medical standards do not apply to those persons already serving for whom some allowance in standard may be made for age and shorter duration of remaining service.
- Since there can be a wide variation in the functional capacity of individuals with a given diagnosis, the se guidelines give the Medical Officer considerable latitude in making a placement recommendation.
- The medical officer should bear in mind that it is not possible to develop a comprehensive list of standards for every job. Even if such a list is made available, it cannot replace sound medical judgement.

Conditions which make candidates unfit for job

Any disease which is likely to

- *Render the candidate unfit for service eg constitutional and progressive diseases, chronic diseases liable to recurrent exacerbation of a disabling kind*
- *Preclude an individual from performing the essential functions of the job*
- *Seriously enhance candidate's liability to occupational risk*
- *Be aggravated by service in the particular job*
- *Endanger the health (eg, contagious & infective diseases) or safety of others*

When conditions need treatment or surgery, these should be carried out prior to appointment to avoid absenteeism and medical expenses.

GENERAL

Height

Permissible limits:

- Minimum height: Male 152cm; Female 150 cm
- Maximum height = 200cm

If height is > 200 cm

- Rule out pituitary dysfunction
- They are also **unsuitable** for jobs involving frequent loading and lifting of weight with chronic backache and prolapsed inter-vertebral disc.

(Minimum height prescribed can be relaxed in case of candidates belonging to races such as Gorkhas, Garhwalis, Assamese, Nagaland tribal whose average height is low)

Weight

Weight will be recorded in kg. fraction of less than half a kg will be ignored.

Calculate BMI: BMI in kg/m² = Body wt. in kg / (Ht. in meter)²

- The desirable BMI is 18.5 - 24.9

If underweight (BMI ≤ 18.5 kg/m²): Carry out complete physical examination and investigations to rule out acute/chronic diseases. **Routine Blood, Urine and Stool; Mantoux, CXR-PA, Blood. Sugar, Serum Creatinine, Blood Urea, Liver Function Tests, Thyroid Function Tests.**

If the tests are normal, and if otherwise fit for job, declare the individual temporary **unfit** for 2 wks.

After 2 weeks,

- Recheck weigh to ensure that there is no loss of weight.
- Re-examine.

If no loss of weight and no abnormality found, the candidate can be declared **fit**.

If overweight (BMI ≥ 25 kg/m²): Investigate for diabetes, hypertension, cholesterol

If no abnormality found,

- BMI 25-30 = fit
- >30 - Hinders mobility and are not suitable for regular employment as durwan, fireman etc which require quick mobility.

Chest expansion and Girth

Actual measurement of chest girth and chest expansion is of little value and is not recommended

Body Temperature

Any deviation from normal (98 – 99.0 F) would need detailed examination of the cause.

Mouth

Examine teeth, gums, tongue, buccal mucosa.

- There should be no oral sepsis.
- There should be sufficient no. of natural teeth (in healthy state) for mastication. (any 04 of the 06 anteriors and any 06 of the 10 posteriors in good functional apposition in each jaw). Well filled teeth will be considered as sound. Missing teeth causing reduced chewing or testing efficiency must be replaced by well designed bridges, partial dentures, or implants in good condition.

The candidates with the following conditions will be TEMPORARILY UNFIT till investigation/treatment is completed. All dental treatment to be completed before appointment

- *Leukoplakia & submucous fibrosis - precancerous conditions and a biopsy should be done to r/o malignancy.*
- *Infections and chronic diseases of mouth or gums (eg, Severe or extensive apical or periodontal infection)*
- *Severe dental defects that interfere with proper mastication - Unsatisfactory restorations, bridges, dentures or implants.*
- *Marked malocclusion*
 - *that requires early or prolonged treatment.*
 - *Involves tissue impingement on either the facial or lingual/palatal gingiva.*
- *Perforations from oval cavity into nasal cavity or maxillary sinus.*
- *Tumors or cysts of the oral tissues that can be expected to require treatment in the foreseeable future.*

Lymph Nodes

There should be no evidence of active tuberculosis or other disease. Any significant Lymphadenopathy needs evaluation.

ENT

Ear

Examine both ears with an auroscope.

The candidate should be free from any active disease of the ear.

Hearing

The candidate should have good hearing in both ears - should be able to hear whispering voice separately in both the ears at a distance of 6 meters in a quiet room without hearing aid (see annexure for procedure). If there is any deficiency of hearing in either or both the ears, audiometry will be done. Hearing deficit if any will be less than 35 dB at 500, 1000, 2000, and 3000 Hz.

Deaf or partially deaf: assess as mentioned under disability

Temporarily unfit till ENT evaluation and treatment:

- Perforation of tympanic membrane of central or marginal type – one or both ears
- Persistently discharging ear-operated/non-operated:

Other conditions requiring evaluation and treatment before consideration for fitness:

- Auditory canal - atresia, severe stenosis, or tumor
- Severe external otitis
- Auricle - severe agenesis or traumatic deformity,
- Mastoid - severe mastoiditis or surgical deformity,

Meniere's disease, labyrinthitis or any disorder of equilibrium - **unfit** for jobs involving working at heights, driving etc

Nose

Candidate should be free of any active disease of nose.

Severe congenital or acquired defects of nose, mouth, throat like deviated nasal septum *with symptoms*, polyp, hypertrophic rhinitis, chronic severe rhinitis that cause significant reduction of flow through either airway or which interfere with drainage of a sinus - **temporarily unfit** and surgical correction before fitness

Anosmia - **unsuitable** for chemical industry, places of excess fumes, heat.

Any condition of trachea, larynx or esophagus that interferes with breathing or speech or otherwise results in individual not being able to perform his duties is **disqualifying**.

Throat

Throat, jaws, temporo-mandibular joints, palate, gums should be within normal limits. Acute inflammatory conditions of tonsils and naso-pharynx should be treated before employment. Hoarseness of voice of severe degree - **temporarily unfit** till treated.

CARDIO VASCULAR SYSTEM

Pulse

Count pulse rate for 30 seconds, if irregular for one minute. Also note rhythm, volume and character.

Abnormal rate (< 60 or > 100), irregular pulse, or dependence on pacemaker needs further investigation in detail.

Evaluation

Any cardiac condition/ abnormality should be evaluated further with X-ray chest, ECG, ECHO, colour Doppler. Cardiology opinion may be obtained if necessary for proper evaluation of cardiac status.

UNFIT

If their condition is likely to improve to the required standards with treatment, they will be temporarily unfit for treatment. After successful treatment they can be considered for supervisory/sedentary jobs as per their functional status but will remain **unfit** for physically demanding jobs

- *Current angina pectoris*
- *Aortic aneurysm or congenital or acquired lesions/aneurysm of a major vessel*
- *Ch. Pericarditis*
- *3^o AV block without pacemaker.*
- *Recurrent syncope*
- *Haemodynamically significant valvular heart disease, Congenital abnormalities*
- *Mitral valve prolapse if symptomatic or associated with haemodynamically significant regurgitation*
- *Congestive heart failure*
- *'Automatic implantable cardioverter defibrillator' implantation*
- *Cardiac condition with functional capacity <8 METS or Ejection fractions < 40%.*
- *Marked circulatory instability as indicated by orthostatic hypotension, persistent tachycardia, and severe peripheral vasomotor disturbances,*
- *History of sudden cardiac death syndrome (need cardiological evaluation before fitness)*
- *Cardiac or multi organ transplant*

UNFIT FOR PHYSICALLY DEMANDING JOB, BUT FIT FOR SUPERVISORY/SEDENTARY JOB

- *CABG, coronary angioplasty, stent placement or atherectomy*
- *Significant arrhythmias*
- *LVH*
- *H/o Myocardial Infarction*
- *Significant congenital or acquired valvular heart disease without evidence of decompensation or who have undergone successful surgical correction.*
- *Pacemaker implantation*

High BP

SBP should be < 140 and DBP should be < 90 with or without drugs.

Hypertension will not be routine cause for unfitness.

Untreated hypertension or hypertension controlled through medication should be clinically evaluated and investigated for

- Other risk factors for Coronary heart disease like Diabetes mellitus, smoking, dyslipidaemia, obesity, family history of premature CHD
- Secondary causes of hypertension (especially candidates aged < 35 y; they will be examined and investigated to rule out various causes of secondary hypertension)
- Complications of hypertension – cardiac, Cerebro-vascular, peripheral vascular, renal etc

Candidates with newly detected high BP or uncontrolled hypertension will be made **temporarily unfit** (minimum 1 month) for confirmation of hypertension and control of BP.

Those patients with hypertension, newly detected or known with other risk factors and complications will be evaluated for fitness on the basis of overall evaluation of all conditions.

Low BP

Persons with systolic blood pressure of less than 90mm of Hg have a tendency for attacks of dizziness and syncope. **These persons should not be employed on jobs where temporary disturbance of consciousness may cause harm to the individual or others (see under epilepsy)**

Heart Size

All cases of cardiomegaly should be thoroughly evaluated before employment

Malposition of the Heart

Dextrocardia per se does not cause any symptoms. However, evaluation should be made for any associated congenital defect which may prove serious.

Vascular System

- Deep vein thrombosis, thrombophlebitis; or embolism – **EVLAUTE FOR CAUSE**
- Varicocele, symptomatic – **TEMPORARY UNFIT** for treatment
- Peripheral vascular disease, including intermittent claudication, and buerger's disease - **UNFIT** for physically demanding jobs and jobs requiring mobility; evaluate for other risk factors for Coronary heart disease, other cardiovascular complications of atherosclerosis.
- Raynaud's disease – evaluate for cause. Rule out connective tissue disorders. **UNFIT** for jobs involving use of vibrating tools.
- Recurrent thrombophlebitis - **UNFIT**
- Chronic lymphedema – **UNFIT** for physically demanding jobs and jobs requiring mobility

Varicose Veins

Candidates should not suffer from varicose veins or venous insufficiency. Individuals with varicose veins are not suitable for the jobs which require prolonged standing – eg, Durwan, Nurses.

For other jobs - Severe or symptomatic varicose veins or venous insufficiency - **temporarily unfit** till surgical correction.

Operated Varicose veins - investigate with Doppler study - if deep veins are patent, candidate can be considered **fit**.

RESPIRATORY SYSTEM

CXR- PA and PEFr measurement will be carried out for all candidates

- Any abnormality in contour or size of chest
- High respiratory rate
- Abnormal breath sounds, added sound e.g. crepitations, pleural rub

The above cases will be evaluated further. Specific investigation to assess the severity and activeness of the disease will be carried out (eg, sputum for AFB, ESR etc for Pulmonary TB; spiral CT for pulmonary fibrosis; Spirometry for functional capacity)

In case of chronic lung diseases, individualised decision has to be taken about fitness depending on functional capacity as assessed by spirometry, the severity of the disease, and the nature of the job and environmental conditions: in cases where control is possible as in case of bronchial asthma the decision will be made after treatment of the individual.

- Lung abscess or empyema
temporarily unfit
- Pneumothorax
temporary unfit for treatment and evaluation. Decision about fitness will be taken based on underlying disease
- Chronic obstructive pulmonary disease
Moderate to severe chronic obstructive pulmonary disease (Frequent exacerbation of symptoms, cough and low grade wheezing between exacerbations, diminished exercise tolerance, signs of significant airway obstruction using Spirometry) - **Unfit** for job requiring physical exertion/ manual work
- Bronchial Asthma
Unfit for any work where dust and fumes, known allergies are present. If symptomatic, **temporary unfit** till treatment; If well controlled **fit** for other jobs. Otherwise **unfit** for physically demanding jobs. If severe despite adequate treatment, **unfit** for any job.

The assessment of severity and functional capacity will be based on frequency of daytime and nocturnal exacerbations and percentage of PEFr compared to normal. Such assessment will be made after full treatment. Due allowance will also be given for seasonal variations of the disease and potential exacerbations.

- Chronic bronchiectasis
 - **Unfit** for food handlers
 - If severe-**unfit** for all
- Pneumonectomy / Lobectomy
 - **Unfit** for manual work
 - May be **fit** for sedentary work – assess individually

- Pulmonary tuberculosis
 - Acute P.T. – **temporary unfit**
 - **Fit** if:
 - has completed specified treatment
 - 3 successive sputum tests are negative for AFB
 - Serial CXR – PA do not show changes.
- Evidence of past TB

Unfit for jobs where pneumoconiosis is a potential hazard. Lesion of doubtful activity - unfit for atleast 6 weeks for observation and repeat CXR – PA
- Known occupational lung disorder

Unfit for job in dusty environments.
- Other conditions

Require evaluation to assess the severity and functional capacity

GASTRO INTESTINAL SYSTEM

No routine rectal examination required unless there is a positive history suggestive of rectal pathology.

Enlargement of spleen or liver or both should be further evaluated.

If both liver and spleen are grossly enlarged – **unfit**.

Carry out LFT for jobs involving, exposure to hepatotoxic agents like; Vinyl chloride, Benzene, Tri-nitro-toluene.

TEMPORARY UNFIT

Temporary unfit till medical/ surgical treatment and recovery:

- Hernia
 - Fit within 3 - 4 weeks after surgery for sedentary jobs.
 - 8 weeks after surgery for heavy manual job.
- III or IV degree Piles
- Hydrocele -. Fit 2 weeks after surgery
- Recurrent appendicitis
- Gall stone – assess need for surgery; if surgery is required, temp unfit; otherwise fit
- Active gastrointestinal bleeding. Temp unfit; investigate/ obtain specialist opinion
- Acute hepatitis
- Cholecystitis - temp unfit till surgery and recovery
- Diverticulitis, – temp unfit till recovery
- History of gastro-intestinal bleeding/perforation – if no current pathology, fit.
- Intestinal stoma – not unfit on its own. depending on the primary condition and nature of the job.

UNFIT

- Pancreatitis, recurrent
- chronic pancreatitis
- Liver or multi-organ transplantation
- Cirrhosis
- Chronic hepatitis
- Inflammatory bowel disease – Ulcerative colitis, Regional enteritis
- Extensive bowel resection
- Peptic Ulcer

H/o Peptic ulcer, no bar to employment. Active peptic ulcer like symptoms require investigations and treatment – **temporarily unfit**.
- Others

Candidates with chronic intestinal complaints should not be rejected if health is otherwise good. Persons suffering from ulcerative colitis and malabsorption syndrome should not be employed for heavy manual jobs.

GENITO-URINARY SYSTEM

Temporary unfit

- Severe phimosis.
- Undescended testes
 - Unilateral – temp unfit till surgery
 - Bilateral - if surgery is required.
- Pilonidal sinus – Fit 3-4 weeks after surgery.
- Urinary tract obstruction.
- Prostatism
- Genito-urinary tract infections, specific and non-specific.

Unfit

- Renal failure
- Urinary incontinence
- Renal transplantation.

Urine – Non-orthostatic albuminuria will be a cause of rejection. If sugar is detected during routine chemical tests, further laboratory tests such as standard blood sugar tolerance test will be undertaken.

MENTAL DISORDERS

Any abnormality requires further evaluation.

Individuals with schizophrenia, paranoid disorders, anxiety and panic disorders, and dementia are **unfit**

Persons with aggressiveness, history of alcohol abuse or drug addicts – **unfit**.

Other conditions shall be evaluated based on that individual's history, current status, prognosis, and ability to respond to the stressors of the job.

CENTRAL NERVOUS SYSTEM

Smell, speech, motor and sensory systems should be carefully examined in relation to job requirement.

- **Gait**

Fully expose legs with candidate wearing only underwear. Feet should be bare. Ask candidate to walk away from examiner, turn around at a given point and then come back. Joints, extremities, and back should be examined.

- **Epilepsy**

It is almost impossible to detect epilepsy during pre-employment medical examination unless candidate volunteers the history of fits or gets a seizure during the course of medical examination. Effect of seizure at work: Sleepiness due to anti-epileptic medicines.

Job factors increasing risk of seizures:

- Shift work with loss of sleep
- Exposure to flashing lights.
- Exposure to solvents, heavy metals (e.g. lead) chlorinated hydrocarbons, carbon di sulphide, methyl bromide, benzene, styrene can exacerbate the underlying seizure disorder.

Candidates suffering from epilepsy will be declared **unfit** for the following jobs:

- Machine operators - Shop floor jobs where moving machinery may cause risk to life if they suffer from a fit in the vicinity.
- Work in tunnels
- Compressed air work (risk of air embolism)
- Drivers
- Crane operators
- Electricians
- Work in isolation
- Work at height, near water
- Cooks
- Fire brigade
- Security duties
- Divers

However these patients can be considered for the above jobs if:

- Complete control during previous five years with either no medication or a constant dose of the same medication,
- Normal neurological examination, and
- Definitive certificate from qualified neurologist.

- Those with recurrent syncope, insulin taking patients prone to hypoglycaemia and other patients prone to syncope/ loss of consciousness will also be **unfit** for the above jobs

- **Cerebro vascular accident**

History of Cerebro-vascular accident including transient ischaemic attack requires careful assessment of current functional status and other risk factors for cardio vascular disease.

- **Speech**

Stammering is not to be considered a serious defect disqualifying a candidate for clerical duties, especially such of them as do not have to come in direct contact with the public.

Severe speech impediment – **unfit** for jobs which require direct contact with the public or communication with others. Fit for isolated jobs without need for much oral communication with others.

UNFIT

- Ataxia
- Multiple sclerosis with activity or evidence of progression within previous three years
- Muscular dystrophy
- Myasthenia gravis
- ALS
- Dementia
- Any disorder affecting equilibrium which is acute, episodic, chronic, or recurrent
- Organic diseases of the nervous system or disorders due to metabolic disease causing disturbance of muscular function, balance, coordination or alertness.

The following cases require careful individual evaluation of residual effects, severity and consideration in relationship to the requirements of the job to decide upon the fitness:

- Congenital conditions and malformations,
- Migraines, frequent attacks causing incapacity
- Clinical disorders with paresis, paralysis, loss of coordination, abnormal motor function, or abnormalities of sensation,
- History of subdural, subarachnoid, or intracerebral hemorrhage,
- Recent severe head contusion or concussion

EXAMINATION OF THE EYE

Specific vision tests may be required in the interest of:

- A. Public safety.
- B. The employee himself so that he can carry out his duties effectively.

The following should be tested:

For all

- General examination of the eye
- Acuity of vision : distant and near vision.
- Colour vision

Where specifically indicated

- Field of vision
 - Binocular vision
 - Fundus/ full ophthalmology examination
- Eyes should be free of disease.
 - There should be no evidence of any morbid condition of either eye or the lids of either eye which may be liable to risk of aggravation or recurrence.
 - Any permanent or progressive morbid condition of eyes, eyelids of contiguous structure without recovery – **unfit**.
 - Any organic disease or a progressive refractive error which is likely to result in lowering of the visual acuity shall be considered as a **disqualification**.
 - Trachoma, unless complicated, shall not ordinarily be a cause for disqualification.
 - In glaucoma there is field loss– **unfit** for shop floor jobs.
- Acuity of vision.
 - Both distant vision and near vision will be tested.
 - Each eye will be examined separately.

A set system of visual standards does not exist in industry. Visual standards differ from industry to industry as the visual requirements for different jobs are different. It is recommended that, in case of doubt the medical officer should go to shop floor and see what are the actual visual requirements for a particular job.

• Classification of Jobs for Visual Standards

Class: A

Driver OMHE Rigger Durwan

Class: B

Fire fighting staff Technical IEs Lab. Technicians Radiographers

Class: C

Clerical staff NIEs Store staff Teachers
Medical, Nursing, Paramedical staff (other than Radiographers and Lab. Technicians)

- Standard of Visual acuity with or without glasses will be as follows

Class	Distant vision	Near vision
A	6/9, 6/9	Sn 0.6, 0.6
B	6/9, 6/12	Sn 0.6, 0.6 when reading or close work is required
C	6/9, 6/36; 6/18, 6/18; 6/12, 6/24	Sn 0.6, 0.6 when reading or close work is required

(**Note: Sn 0.6 = N 6**)

When the age of the candidate at the time of first appointment is 35 years or more the visual acuity standards are reduced as below:

Class	Distant vision	Near vision
A	6/12, 6/18 Naked eye vision not below 6/60, 6/60.	The combined vision with or without glasses should be the ability to read ordinary print. Where reading or close work is required, the combined near vision should be Sn 0.6, 0.6
B	6/9, 6/36; 6/18, 6/18; 6/12, 6/24	The combined vision with or without glasses should be the ability to read ordinary print. Where reading or close work is required, the combined near vision should be Sn 0.6, 0.6
C	6/12, 6/60; 6/24, 6/24; 6/18, 6/36	The combined vision with or without glasses should be the ability to read ordinary print. Where reading or close work is required, the combined near vision should be Sn 0.6, 0.6

- Myopia

Healthiness of retina is more important in assessing the health of the eye than the refractive power of the spectacles. High myopia carries risk of complications like retinal detachment and degenerative changes.

- The total amount of myopia (including the cylinder) should not exceed – 4.0 D.
- When the power of lenses exceeds – 4.0 D, the candidates should be examined by an Ophthalmologist to assess whether this myopia is pathological or not.
- Fundus and Media should be healthy and within normal limits.
- No degenerative signs of vitreous or chorioretina to be present suggesting progressive Myopia.
- Should have good binocular vision, fusion faculty and full field of vision in both the eyes.
- There should be no organic disease likely to cause exacerbation or deterioration.
- In case the myopia is not pathological, the candidate may be declared fit, if he fulfills the visual requirements as prescribed.
- Myopia with degenerative changes in the retina irrespective of power of glasses are unsuitable for any job.

- **Hypermetropia**

It is by far the most frequent error or refraction and is congenital and often hereditary. These candidates may have amblyopia in one eye and squint in other eye. Hypermetropia upto +6 should be accepted provided their corrected vision improves upto 6/9 and have a binocular vision. If vision does not improve then such candidates should not be considered for employment.

- **Radial Keratotomy**

Candidates who have undergone Radial Keratotomy may not be considered for recruitment to A category. The long term results radial keratotomy are poor and individual may revert back to his original number. However candidates with such operation may be considered for recruitment in B and C categories, if other wise medically fit.

- **Excimer laser treatment for reducing the power of spectacles**

It is possible that those with high myopia upto –18 may undergo the excimer laser treatment and report for medical examination later on. In all such cases it is advisable to get expert opinion from the ophthalmologist before considering the fitness.

- **Contact lenses**

Correction with contact lenses is no bar for employment provided the prescribed standards are fulfilled.

Whenever a candidate with contact lenses presents for examination, it is important to know:

1. Whether the individual can tolerate contact lenses comfortably for more than 8 hours or more each day.
2. Whether there is any appreciable amount of dust, smoke, irritating fumes or liquid irritants that could splash into the eyes.

Candidates with contact lenses should not be recommended for employment in certain jobs involving exposure to strong acids and alkalis.

Candidates having marked difference in power in both eyes could have diplopia and hence such candidates are not suitable for employment.

- **One eyed person**

The main consideration in such cases is whether the candidate's vision is adequate for the performance of the duties. A job applicant with monocular vision i.e. able to see only with one eye is **UNFIT** to perform jobs which require good depth perception. Candidates in class A and B in general require binocular vision and one eyed persons are not suitable for such posts.

The cause of blindness and its possible effects on the sound eye in course of time should also be considered. Protection of his remaining eye is important and he should not be given job where there is a great danger of flying particles.

Candidates with monocular vision **should not be considered** for employment on shop floor as they do not have depth perception. However, they can be considered for office and clerical jobs.

Examples of other jobs which require **normal depth perception** are:

- Driver
- Process Cameraman
- Rigger
- Optical worker
- Jobs that require climbing and jumping
- Durwan
- Fire fighting staff
- Watch and Clock Mechanic
- Surveyor
- Offshore work

- **Squint**

For the jobs mentioned above, the presence of binocular vision is essential. As persons with squint are likely to have defective binocular vision, candidates for such jobs with squint will undergo test for binocular vision. In case all tests carried out indicate the presence of binocular vision, the mere presence of squint should not disqualify the candidate. 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.

- **Colour Blindness**

The colour vision shall be tested for all candidates with Ishihara's Isochromatic plates in good light. Most cases of this type are characterized by a Red-Green deficiency. Colour deficient applicants are able to safely perform all jobs except those that require ability to differentiate colours correctly such as;

- Industrial staff dealing with machines involving recognition of coloured signals.
- Technicians engaged in Laboratory work and Chemists.
- Crane Operators and Points men.
- Draughtsmen.
- Drivers of all categories.
- Electricians.
- Doctors.
- Lab. technicians and chemists
- Scientific assistants,
- Durwan/ Security personnel
- Pilots, Certain ground staff
- Occupations in shipping, railways, design and art
- Cloth and paper production
- Electronic assembly
- Navigation
- CAD operators
- Job involving coloured cables
- Fire fighters
- Electronic technicians
- Panel operator
- Other occupations where perception of colours is considered essential.

All the above jobs require normal colour vision for proper pursuit. Colour blindness is a **disqualification** for these jobs.

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

Applicants for jobs as above be further tested by a practical test or a lantern test. On passing these tests, they should be considered as **FIT**.

- **Night vision**

Night vision need not be tested as a routine but only in special cases where person is required to work in dark eg, radiographer, photographer. No standard method to test night vision is prescribed.

- **Field of vision**

Class-A candidates will be examined by ‘confrontation method’ to ascertain that the fields of vision are not seriously restricted. If any abnormality is detected, additional assessment by perimetry will be carried out. The binocular visual field should be at least 140 degrees (at least 70 degrees temporally in each eye)

- **Cataract**

Employees with aphakia: Employees operated for cataract by conventional surgery resulting in aphakia, irrespective of acuity of vision with glasses will not be **fit** for categories other than C.

Intraocular lens implants (IOL)

Candidates operated with IOL implants either for congenital cataract or traumatic cataract at a later age, should not be rejected outright. They can be considered for employment provided their vision both distant and near, unaided or aided meets the criteria.

- **Other conditions**

Any other vision disorder or eye condition that results in an individual not being able to perform the essential functions of the job such as retinal detachment, progressive retinopathy, or optic neuritis, repair of retinal detachment will be **disqualification**.

VENEREAL DISEASES

Candidates who have suffered or are suffering from venereal diseases will be declared **temporarily unfit** unless detailed examination of urethral smear and serological test proves negative.

SKIN DISEASES

- Allergic contact dermatitis

This is caused by repeated contact with highly sensitized substances such as nickel, pigments, rubber additives, chromates, formaldehyde and mercury.

Nickel allergy is common in cashiers and dressers, where there is direct contact with nickel. Chromate allergy is less common, and hence they are unsuitable in cement industry, construction work and leather industry where dichromates are used.

- Leprosy

- All cured cases having no deformity should be accepted.
- Tuberculoid and intermediate type may be employed provided they take regular treatment under supervision and do not have any deformity. They should not be employed in canteen, food handling, drug and cosmetic industries.

- Atopic dermatitis (endogenous eczema)

There is increased susceptibility to certain diseases such as asthma, hay fever etc. Occupations with animal contacts may be **unsuitable** for atopics.

- Chronic dermatitis

Existing chronic dermatitis of any aetiology over the dorsum of hands or palms - **unsuitable** for jobs where exposure to irritants is inevitable. Same is the case for detergent dermatitis.

- Congenital ichthyosis

The skin is highly sensitive to primary irritants particularly fat solvents. Candidates with evidence of ichthyosis can be considered for employment provided that they do not work with solvents and irritants. Best job for these candidates is office job.

- Albinism

Albinos show extreme sensitiveness to ultraviolet radiation and hence they are **not suitable** for most of the jobs especially out door jobs involving exposure to sunlight.

- Haemangioma

- Those in ophthalmic nerve distribution may be associated with central nervous system abnormality and requires further evaluation.
- Nodular types have deeper vascular connections and are prone to complications hence such cases may have to be rejected.

- Vitiligo

Vitiligo should not be considered as a cause of rejection.

- HIV testing

Routine HIV testing is not recommended.

Some controversy for employment of medical and paramedical staff tends to arise due to isolated reports of HIV transmission in health care set ups, the risk of transmission of HIV in such a set up is still a debatable issue.

PERSONS WITH DISABILITIES

See disability under main document

CONTAGIOUS AND INFECTIVE DISORDERS

Provided that the condition of the candidate has been adequately treated and ceased to be contagious or infectious, such disorder will not be regarded as disqualifying, unless the sequelae, if any, are in themselves likely to interfere immediately or later with the efficient performance of the duties of their appointment. The following conditions fall under the above category –

- Pulmonary tuberculosis.
- Venereal infection.
- Trachoma and other infectious ocular diseases.
- Leprosy

Haematopoietic and Lymphatic

UNFIT FOR MANUAL JOBS

- Hemorrhagic states requiring replacement therapy, including haemophilia,
- Sickle cell disease (homozygous),
- Chronic anticoagulation therapy.

NEED EVALUATION AND INDIVIDUALISED DECISION

- Anemia, leukopenia, or thrombocytopenia,
- Polycythemia vera,
- History of thromboembolic disease

ENDOCRINE DISORDERS

- **Diabetes Mellitus**

Diabetes Mellitus as such should not be rejected outright. Each case should be evaluated in view of the state of disease, nature of job whether strenuous or otherwise, shift work, irregular meal timings and compliance of medicines. It is also necessary to consider the risk involved as a result of sudden fluctuation in blood sugar leading to hypoglycemia. Diabetics on insulin treatment are not suitable for jobs temporary disturbance of consciousness may cause harm to the individual or others (see under epilepsy)

Diabetes in young individuals has uncertain prognosis. They are prone to ketoacidosis, hypoglycemia and frequent complications and hence are suitable only for sheltered employment and where they have fixed eating hours. However in middle aged or maturity onset group the disease is stable well controlled and such cases can be considered for employment provided they continue to take regular treatment.

All these candidates should be thoroughly evaluated with glycosylated Hb, ECG and for secondary causes, complications, other cardiovascular risk factors before considering for employment.

- **Thyroid**

Thyroid should not be palpable; if palpable candidates should be evaluated thoroughly before employment.

There should be no evidence of hypo or hyperthyroidism; If found and uncontrolled, **temporarily unfit** (minimum 6 weeks) and treatment to control before making fit.

- **Other endocrine disorders**

Candidates with Acromegaly are **unsuitable** for employment.

Diseases of the adrenal gland, pituitary gland, parathyroid gland, or thyroid gland of clinical significance need careful assessment. If uncontrolled **temporary unfit**.

TUMOURS AND MALIGNANT DISEASE

- **Malignant tumours**

The medical evaluation of any candidate with malignant disease which is newly diagnosed, untreated, or currently being treated shall be deferred until treatment has been completed. Treated malignant disease shall be evaluated based on that individual's current physical condition and on the likelihood of that individual's disease to recur or progress.

- **Benign tumours**

Temporary unfit, if treatment will be required in near future or associated with functional effect.

- **Other Conditions**

Connective tissue and autoimmune diseases, including dermatomyositis, lupus erythematosus, scleroderma, and rheumatoid arthritis - **UNFIT**

EXAMINATION OF FEMALE CANDIDATES

Medical examination in general is similar to males except that specific history about menarche, menstrual cycles, Gynaecological and obstetrical history is to be sought. History of painful or heavy menses is very important as this may interfere with her work periodically.

The basic purpose of this examination is to find out any abnormality of the genital system, which might interfere with her work.

Internal examination, Pap smear and breast examination should not be carried out routinely unless indicated by clinical examination.

While considering medical fitness for employment occupational physician has to keep in mind about the safety and health status of the women of child bearing age.

Radiological examination should be carried out with utmost caution and avoided in pregnant candidates.

A female staff **must be present** when female candidates are examined by male medical officer/staff.

- **Pregnancy**

All the female candidates will undergo pregnancy diagnostic test. Pregnancy on its own **will not** render the candidate unfit/temporarily unfit for the job.

MUSCULO-SKELETAL SYSTEM

NEED EVALUATION AND INDIVIDUALISED DECISION

Persons with disability need to be evaluated as per the guidelines for handicapped persons.

- **Head and Skull**
 - Deformities of the skull, loss or congenital absence of the bony substance of the skull which limit the ability to wear a mask and/or protective breathing apparatus,
 - Thoracic outlet syndrome sufficient to compromise required activity,
 - Congenital cysts, chronic draining fistulas, or similar lesions,

- **Neck and Cervical Spine**
 - Cervical arthrodesis/fusion,/instability
 - Cervical canal stenosis
 - Cervical radiculopathy or myelopathy
 - Herniated disc
 - Degenerative disc disease
 - Abnormal chronic contraction of neck muscles

- **Thoracic/lumbar/sacral Spine**

Symptomatic spondylolisthesis, whether or not surgically corrected. – unfit for physically demanding work.

 - Lumbar laminectomy or discectomy, with or without fusion
 - Degenerative disease/spondylolysis/pars defect
 - Structural abnormality, fracture, or dislocation
 - Degenerative disk disease
 - Herniated disk/sciatica/radiculopathy
 - Spinal stenosis

- **Extremities**
 - Hemipelvectomy,
 - Hip disarticulation,
 - Total joint arthroplasty:of shoulder, elbow, wrist, thumb, first, or second digit, hip, knee, ankle
 - Severe limitation of motion of a joint, fibrosis, or arthrodesis,
 - Amputations
 - Deformity or dislocation of a joint or limb
 - Joint reconstruction, ligamentous instability, or joint replacement
 - Chronic osteoarthritis or traumatic arthritis
 - Inflammatory arthritis
 - Osteomyelitis
 - Compressive neuropathies including carpal tunnel syndrome or ulnar nerve palsy
 - Require use of stabilizing orthopedic braces

Ankylosing spondylitis	Unsuitable to work on shop floor as their forward bending is completely restricted.
Flat foot	Need arch support for the foot
Knock-knee	Not cause for rejection

CATERING STAFF

All food handlers in canteen should undergo a strict medical examination before starting employment. In addition to routine examination attention must be given to skin, gastro intestinal tract and ENT infections.

Skin should be examined for recurrent skin infections which may harbour germs like staphylococci. Subjects with recurrent sore throat or discharging ears or nose should not work with food for increased risk of infecting food.

Care is taken to see that a food handler also maintains a high standard of personal and dental hygiene and is not a nail biter. Finger nails should be kept short and clean. They should have reasonably short hair or keep long hair covered, and wear suitable foot wear.

The food handlers should be in good general health and not a persistent silent carrier of illnesses spread by food like typhoid, paratyphoid, hepatitis and amoebiasis.

A routine stool examination should form a part of a routine pre-employment check-up for canteen and hotel workers, cooks, bearers and workers in food industry and canning industry.

Infestations with worms and other parasites like amoeba should be thoroughly eradicated by appropriate treatment. Those involved with food handling activity, periodic check-up of stool samples must be carried out and recurrence and re-infection must be treated.

In a high accident risk environment of a busy kitchen a handicapped, disabled person may be a hazard, hence this is one area where people with disabilities should be excluded.

3. TESTING PROCEDURES

List of equipment required for pre-appointment medical examination

1. Torch light
2. Weighing machine
3. Height measurement
4. Sphygmomanometer
5. Stethoscope
6. Distant and near vision charts
7. Ishihara chart.
8. Tuning forks – 128, 256, 512 Hz
9. ECG machine
10. PEFr meter
11. Thermometer
12. Measuring tape
13. Glucometer
14. Urine examination strips
15. Auroscope

Peak Flowmetry

The peak flow rate is compared to predicted normal values for the persons height and age obtained from normograms.

Measurement of Height

Height is measured in centimetres with the individual standing barefooted, with his feet together and weight thrown on both heels and not on the toes. The candidate will stand erect with chin drawn into bring the vertex of the head in level under the horizontal bar of the stand and with heels, calves buttocks and shoulders touching the height scale with body fully relaxed and spine straight but not strained. The height will be recorded in centimetres and part of centimetres rounded to the nearest half.

Measurement of Weight

Weight will be recorded in kilograms. Fraction of less than 0.5 kg will be ignored. The candidate will be stripped of heavy clothes while taking weight.

Blood Pressure

Measure BP properly with patient seated. If first BP reading is abnormal, candidate will take rest in seated position with back supported for at least 5 minutes and then measure BP twice at 1-2 min intervals. If there is marked difference between the two readings (>10mm Hg), discard the initial reading and take further reading.

Near vision method

Visual acuity at reading distance is assessed with reading test types. The smaller print used is N5. The near vision is recorded as smallest type which can be read comfortably at distance of 35 cm.

Distant vision Method

Distant vision is measured with Snellen test types. DV is recorded as d/D, where 'd' is the distance at which the letters are read and 'D' is the distance at which they should be read. Candidate is normally at 6 meters distance and each eye tested separately. Visual acuity of less than 1/60 is recorded as counting fingers – CF, hand movements – HM, perception of light as – PL.

If candidate is wearing glasses his vision with glasses and vision without glasses should be recorded. If candidate knows the power of glasses the same should be recorded.

Visual field

A practical test to assess visual field can be performed by moving fingers – confrontation test. If any limitation is detected, perimetry shall be done.

Colour Vision

Colour vision can be tested on Ishihara Chart. The plates are designed to be appreciated correctly in a room which is lit adequately by daylight. The plates are held at a distance of 75 cm from the subject and tilted so that the plane of the paper is at right angles to the line of vision. Each answer should be given within three seconds. Limited number of plates may be read as described the instruction look accompanying the Ishihara Chart for jobs for which requirement of colour vision is not mandatory. Testing of individual colours should be carried out in candidates who are unable to read Ishihara Chart correctly. Sorting colour coded resistors, arranging fabrics in order of hue, or accurate identification of flashed signal lights can assess the functional ability to discriminate colours.

Speaking voice test

The test will be carried out in a quiet room, with the Medical Officer and the candidate standing at a distance of 6 meters from each other. Both the ears will be examined separately. The ear not being tested will be masked by a masking apparatus or 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 after full expiration). The hearing will be considered normal if the candidate can reproduce the whisper.

Tuning Fork Test

Tuning fork emits pure tones and enables more information to be obtained by comparison of AC (Air Conduction) hearing with BC (Bone Conduction) hearing. Reduced AC hearing but normal BC hearing indicates conductive deafness. If both AC and BC hearing are reduced, perceptive deafness is suspected.

Rinne's Test

A tuning fork is struck and placed on the mastoid process and candidate is asked about his response. If he hears the sound ask the candidate to indicate as soon as he stops hearing. On this indication tuning fork is held just in front of external auditory meatus and again ask for his response, whether he still hears or not. If he still hears it is again a positive response - air conduction is better than bone conduction. In case candidate is unable to hear any thing when tuning form is held in front of the external auditory meatus interpretation will be bone conduction is better than air conduction and this abnormal response indicates conductive deafness in the tested ear. The Rinne's test is negative. The test is to be performed on both ears.

Weber's Test

If tuning fork after striking is placed in the midline of skull or over vertex the sound reaches both the ears by bone conduction. A normal candidate hears equally in both ears or hears at the centre of the forehead i.e. acceptable Weber's test. In middle ear deafness and in blockage of the external auditory canal the sound is better heard on the side of diminished hearing, because of increased bone conduction i.e. positive Weber test. In unilateral nerve deafness the sound is lateralized to the normal side i.e. Negative Weber's test. However, in bilateral nerve deafness Weber's test is of no value.

Tuning fork tests often give valuable qualitative information but are unable to give quantitative estimates of auditory acuity and hence for quantitative estimation audiometric studies are more helpful.

4. PROFORMA OF REQUISITION FOR PRE-EMPLOYMENT MEDICAL EXAMINATION

ORDNANCE FACTORY, _____

ADMINISTRATION & PERSONNEL DIVISION

Ref No.....

Date :.....

To,

Chief Medical Officer / PMO(SG) I/C.
Ordnance Factory Hospital,

Sub: Requisition for pre-appointment medical examination

The under mentioned candidate has been selected for employment in Ordnance Factory, _____ .
It is requested to examine the individual to assess his medical fitness with reference to the information
given below and forward the report.

1. Name of the Candidate
2. Post to which the candidate
has been selected for appointment
3. Address of the Candidate
and phone no., if any.
4. Date of birth of the candidate
5. The classification and
nature of duties of the post
6. The categories of physically
handicapped suitable for the job.

**The photo of
the candidate to
be pasted and
duly attested by
the officer
signing the**

7. Physical abilities required for the post
8. Specific standards, if any, of physical fitness prescribed for the post
9. Is nature of medical examination prescribed under Factories Act/rules (If yes, attach extract of the relevant portion of the Factories Act) YES/NO
10. Does the job involves carrying out any notified risk operation?

Description of the working conditions of the post

ADMIN OFFICER
for **GENERAL MANAGER**

N.B.: *All the columns must be filled up with due caution.*

Sl no 5: The entries should be made from relevant recruitment rules or instruction/directive issued by O.F. Board.

Sl no 6: This information to be provided from the latest guidelines for identified jobs for person with disabilities notified by Ministry of Social Justice & Empowerment

Sl no 7: This information to be provided from the latest guidelines for identified jobs for person with disabilities notified by ministry of social justice & empowerment and from the actual requirements of a particular job. Eg Work performed by Manipulating (with fingers), Pulling & pushing, Lifting, Kneeling and crouching, Bending, Sitting (on bench or chair), Standing, Walking, Seeing, Hearing/speaking, Reading and writing, Visual Colour Discrimination

Sl no 8: This information to be provided from relevant recruitment rules.

Sl no 11: Location, Temperature, Humidity, Wetness, High Elevations, Moving Objects, Noise, Dust, Explosives, Electrical Hazards, etc. Refer to guidelines for other examples and descriptions.

ORDNANCE FACTORY, _____

ADMINISTRATION & PERSONNEL DIVISION

(To be handed over to the candidate by hand)

Ref : Requisition No. dated

To
(Name of the Candidate)

You are directed to report to O.F. Hospital for medical examination on.....
dt.

In-charge/Administration
Date :.....

5. EXAMPLES OF WORKING CONDITIONS

(Specify and quantify the conditions)

1. Location
 - Inside - Working under a roof and with all sides protected from the weather.
 - Outside - Working outside exposed to the weather - heat, cold, humidity, dryness, wetness, and dust (due to climate rather than other resources).
2. Temperature
 - Low Temperature - Working in a relatively low average degree of temperature.
 - High Temperature - Working in a relatively high average degree of temperature.
 - Sudden Temperature Changes - Working where temperature changes of more than 10 degrees may take place.
3. Humidity
 - Low Humidity - Working under conditions in which the atmosphere contains a low degree of moisture relative to temperature and air movement.
 - High Humidity - Working under conditions in which the atmosphere contains a high-degree of moisture relative to temperature and air movements.
4. Wetness - Contact with water at site of work.
5. Slippery Surfaces - Working where there is a possibility of falling or losing one's footing because of slippery surfaces.
6. Body Injuries - Possibility of cuts, bruises, sprains, fractures, or amputation.
7. High Elevations - Working above floor or ground level.
8. Confined Spaces and/or Cramped Body Positions - Positions in which the worker is narrowly hemmed in, or work which requires awkward or strained positions to perform.
9. Moving Objects - Working on or about moving machinery or equipment in the vicinity of vehicles in motion, or near any object that changes place or position whereby the well-being of the worker may be jeopardized.
10. Vibration - Exposure of the body, particularly the arms and legs, to sudden jerks and jars or vibration.
11. Noise - Working condition in which sound is produced as part of the work process or is a part of the job.
12. Burns - Possibility of injuries to the body caused by heat, fire, chemicals or electricity.

13. Non-ionizing Radiation - Possibility of exposure to radiation caused by welding flash, microwaves, or sunburn.
14. Dust - Working in an area where the air contains varying quantities of fine, dry particles of earth or matter other than free silica or asbestos.
15. Silica Dust - Working in an area which contains free silica or asbestos dust.
16. Allergenic - Working in situations with possibility of exposure to common allergy-causing agents such as bee or wasp stings and poison oak, ivy and sumac.
17. Toxic Conditions - Exposure to toxins; dusts, fumes, liquids, gasses (aldehydes, other than gasses resulting from plastics fires; or carbon monoxide. the effects of which may be multiplied by smoking or proximity to open flame) which cause general or localized disabling conditions.
18. Chemical Irritant - Working in situations where chemical irritants such as fires with plastics may be involved.
19. Oily - Using oil or grease in normal performance of work.
20. Odors - Working conditions in which worker necessarily comes in contact with noxious air.
21. Explosives - Working with or near material which, under certain conditions, is apt to rapidly burst or break up into pieces, accompanied by a noise.
22. Electrical Hazards - Possibility of contact with uninsulated or unshielded electrical equipment.
23. Ionizing Radiation - Possibility of exposure to radiation from such sources as radioactive isotopes, x-rays, and other nuclear substances.
24. Infections - Any infections caused by micro-organisms.
25. Air Pressure - Working under a high or low pressure condition caused by atmosphere or compressed air forces.
26. Working with Others - Association with others in the course of job performance.
27. Responsibility for Persons - Having responsibility for the welfare and lives.
28. Irregular or Extended Work Hours - Working under conditions that cause fluctuating work hours.
29. Continuity - Work involves activities which, if interrupted, would create a serious problem to the agency, or hazard to the employee, co-workers or the public.
30. Availability of Medications - Working conditions are such that employees unable to obtain necessary treatments or medications may create or contribute to the development of a dangerous situation of the worksite.

6. MODEL PRE-EMPLOYMENT MEDICAL EXAMINATION FORM

ORDNANCE FACTORY HOSPITAL, _____

PRE-EMPLOYMENT MEDICAL EXAMINATION

CANDIDATE'S PERSONAL DECLARATION

(To be filled in by the candidate with the assistance of hospital staff assigned for the purpose)

Please answer all questions honestly, accurately and completely. If you do not understand any question, please seek clarification from the examining medical officer or staff designated to assist you. The information provided regarding your medical history and health habits will be used to make a careful medical assessment of whether you can safely and efficiently perform the essential functions of the job for which you are a candidate and will not necessarily disqualify you from employment. Detailed medical information will be treated confidentially.

Please note that furnishing of false information or suppression of any factual information would be a disqualification for the job and will render the candidate unfit for any employment under the Government. If the fact that false information has been furnished or that there has been suppression of any factual information comes to notice at any time during the service of a person, the candidate's services would be liable to be terminated.

Candidate's personal information

1. Post for which the candidate has been offered appointment:

2. Name in full (In block letters) (last, first, middle):

3. Date of birth: _____

4. Age: _____ yrs (In completed years)

5. Sex: Male / Female

6. Marital Status: Married / Unmarried.

Paste photo of the candidate here
To be attested by the MO carrying out the medical examination

Health questionnaire

Do you now have or have ever had any of the following conditions? (*Strike out whichever is not applicable*)

- | | | | |
|-------------------------------|--------|----------------------------|--------|
| 1. High blood pressure | Yes No | 3. Irregular heart rhythm. | Yes No |
| 2. Heart/blood vessel disease | Yes No | 4. Abnormal ECG | Yes No |

5. Varicose veins	Yes	No	36. Mental illness	Yes	No
6. Chest pain	Yes	No	37. Depression	Yes	No
7. Breathlessness	Yes	No	38. Attempted suicide	Yes	No
8. Leg swelling	Yes	No	39. Eye/vision problem	Yes	No
9. Leg pain on walking	Yes	No	40. Need for corrective lenses?	Yes	No
10. Asthma	Yes	No	41. Deficiency of colour vision	Yes	No
11. Tuberculosis	Yes	No	42. Oral health problems	Yes	No
12. Cough > 1 month	Yes	No	43. Digestive problem	Yes	No
13. Coughing up of blood	Yes	No	44. Difficulty in swallowing	Yes	No
14. Blood disorder/ anaemia	Yes	No	45. Blood in motion	Yes	No
15. Abnormal blood clotting	Yes	No	46. Frequent or persistent stomach pain	Yes	No
16. High or low blood cell counts	Yes	No	47. Frequent or persistent vomiting	Yes	No
17. Enlarged spleen	Yes	No	48. Vomiting of blood	Yes	No
18. Diabetes	Yes	No	49. Jaundice	Yes	No
19. Thyroid or other endocrine problem	Yes	No	50. Hernia	Yes	No
20. Kidney problem	Yes	No	51. Piles	Yes	No
21. Urine problems	Yes	No	52. Motion problems	Yes	No
22. Skin problem	Yes	No	53. Liver, pancreas or gall bladder disease	Yes	No
23. Infectious/contagious diseases	Yes	No	54. Ear/nose/throat/ sinus problems	Yes	No
24. Genital problems	Yes	No	55. Hearing deficiency	Yes	No
25. Pregnancy	Yes	No	56. Hoarseness of voice	Yes	No
26. Frequent or persistent sleep problems	Yes	No	57. Joint problems/ Restricted mobility	Yes	No
27. Epilepsy/fits	Yes	No	58. Back problems/ pain	Yes	No
28. Giddiness/fainting	Yes	No	59. Amputation	Yes	No
29. Loss of consciousness	Yes	No	60. Fractures/dislocations	Yes	No
30. Severe/ frequent headaches	Yes	No	61. Any pins, plates or screws in legs or feet?	Yes	No
31. Speech disorder	Yes	No	62. AIDS, HIV infection or hepatitis	Yes	No
32. Balance problem	Yes	No	63. Significant injuries	Yes	No
33. Stroke, aneurysm or bleeding in head	Yes	No	64. Loss of weight > 5kg in last 6 months	Yes	No
34. Paralysis or muscle abnormality	Yes	No	65. Medical treatment in past 12 months	Yes	No
35. Any other neurological abnormality	Yes	No	66. CT scan, MRI or other special	Yes	No

tests			69. Frequent or persistent itching	Yes	No
67. Loss/ excess of appetite > 1 month in last 6 months	Yes	No	70. Organ transplant	Yes	No
68. Fever last one month	Yes	No	71. Cancer or tumour	Yes	No
72. Have you ever had any operation?				Yes	No
73. Have you ever been hospitalized?				Yes	No
74. Are you aware that you have any medical problems, diseases or illnesses?				Yes	No
75. Are you allergic to any drug, food or other substances?				Yes	No
76. Any health problem, which requires visits to doctor, or for which you take regular drugs?				Yes	No

If any of the above questions were answered "yes", please give details by referencing item number. Provide information regarding diagnosis and treatment, including dates of treatment. Please use additional sheet (s) if necessary.

Are you taking any drugs? Yes No

If yes, please list the medications taken and the purpose(s) and dosage(s).

For Female candidates only

Menstrual History

Age at which first menses occurred: yrs
Average duration of menstrual period: days.
Quantity: Normal/ clots /profuse / scanty
Pain during menses: YES / NO
Menstrual cycles: Regular / Irregular
Duration of menstrual cycle: days
Last menstrual period began on:

Obstetric History

Number of pregnancies:
Live births:
▪ Normal delivery :
▪ Caesarean :
▪ Forceps :
Still births:
Abortions:

Occupational history:

77.	Have you ever been exposed to fumes, dust, chemicals, asbestos, loud noise or radiation at work or elsewhere?	Yes	No
78.	Have you ever received worker's disability/ compensation?	Yes	No

79.	Have you been absent from work for medical reasons in the past five years?	Yes	No
80.	Have you ever required light or restricted duty?	Yes	No
81.	Have you ever had any occupational injury	Yes	No

If any of the above questions were answered "yes", please give details by referencing item number. Please use additional sheet (s), if necessary.

Do you use:

	Now		In past		Give details
	Yes	No	Yes	No	
Cigarettes	Yes	No	Yes	No	
Tobacco	Yes	No	Yes	No	
Alcohol	Yes	No	Yes	No	
Drug	Yes	No	Yes	No	

Family medical history:

Have your father, mother, any brother or sister had or has the following condition? Mark Yes / No

Asthma	Yes	No	If any "yes" answer, please give details by referencing item number If father, mother, any brother or sister is not alive, their age and cause of death
Allergic disease	Yes	No	
Epilepsy	Yes	No	
High Blood Pressure	Yes	No	
Diabetes	Yes	No	
Heart disease	Yes	No	
Cancer	Yes	No	
Stroke	Yes	No	
Tuberculosis	Yes	No	
Any other chronic or serious disease	Yes	No	

Immunisation status

Tetanus prophylaxis status:

- Total ≥ 3 injections & last < 10 yrs
- Total ≥ 3 injections & last > 10 yrs
- Total < 3 injections

Others: (e.g. hepatitis B for health workers)

Past medical examinations:

1. Have you been examined by a Medical Board before? Yes/ No
2. If answer to the above is Yes, please state
 - a) What Service/Services you were examined for?
 - b) Who was the examining authority?
 - c) When and where was the Medical Board held?
 - d) Results of the Medical Board's Examination, if communicated to you or if known.

I hereby certify that all the above answers are, to the best of my knowledge and belief, true and correct.

Candidate's Signature

Signed in my presence

(Signature of MO)

Date:

(Name & designation (seal))

Health advice given:

Additional history recorded by medical officer:

PHYSICAL EXAMINATION

After reviewing the medical history provided by the candidate, conduct a comprehensive medical examination of ALL systems necessary to determine the candidate's fitness for the post. The examination should include, but not be limited to, the areas listed below. If the candidate has conditions relevant to fitness which are not listed below the Medical officer is responsible for documenting all such conditions.

Identification Marks:

1. _____ 2. _____

Sight:

Visual acuity					<i>(Tick the appropriate)</i>		
Unaided		Aided					
	Right eye	Left eye	Right eye	Left eye	Normal	Defective	
Distant					Right eye	•	•
Near					Left eye	•	•

Colour vision:

- Normal • Doubtful • Defective

Hearing:

Whisper test (metres):

Right ear _____ Left ear _____

Systemic examination:

(Tick the appropriate)

	Normal	Abnormal			
1. General appearance	•	•	16. Sinuses, nose, throat	•	•
2. Pallor	•	•	17. Thyroid	•	•
3. Oedema	•	•	18. Lymph nodes	•	•
4. Jaundice	•	•	19. Lungs and chest	•	•
5. Clubbing	•	•	20. Heart	•	•
6. Cyanosis	•	•	21. Abdomen and viscera	•	•
7. JVP	•	•	22. Genito-Urinary system	•	•
8. Speech	•	•	23. Hernia	•	•
9. Mannerisms	•	•	24. Hydrocele	•	•
10. Attention	•	•	25. Anus (not PR), piles	•	•
11. Mood	•	•	26. Varicose veins	•	•
12. Head	•	•	27. Upper & lower limbs	•	•
13. Eyes (General)	•	•	28. Spine	•	•
14. Mouth/teeth	•	•	29. Neurologic	•	•
15. Ears (general)	•	•	30. Skin	•	•

(Breast, PR, PV examinations will be carried out only if specifically indicated).

Details of abnormality

Investigations

Copies of all investigation reports, X-ray plates etc should be attached to this form as part of the record.

Blood Group:

(Tick the appropriate)

Investigations	Result	Normal	Abnormal
Hb		•	•
Blood sugar		•	•
Urine Albumin		•	•
Urine Sugar		•	•
CXR- PA		•	•
ECG		•	•
PEFR L/min	Candidate	•	•
	Predicted		

Other investigation(s) and result(s):

Investigations	Result	Normal	Abnormal
		•	•
		•	•
		•	•
		•	•
		•	•
		•	•

Describe abnormality if any:

Specialist Opinion(s)

(Enclose the opinions)

Summary of significant findings

Summarise abnormal medical history, physical examination findings, abnormal laboratory test results and any other relevant information obtained during your evaluation. Document sufficient information so that your decision-making process is clear to any reviewer in the event that the candidate appeals an adverse fitness determination. Additional pages may be attached to this form

OPINION

- Fit

Description of disability/ required aids if any:

- Unfit
- Temporarily unfit for ____days/ weeks/ months.

Advice (if temporarily unfit):
(specialist opinion / investigation / treatment if any).

Signature of the M.O : _____

Name of MO : _____

Designation : _____

Date : _____

Remedical Examination

Date

Opinion:

- Fit

Description of disability/ required aids if any:

- Unfit

Signature of the M.O : _____

Name of MO : _____

Designation : _____

7. PROFORMA FOR PRE-EMPLOYMENT MEDICAL EXAMINATION REPORT

ORDNANCE FACTORY HOSPITAL, _____ Pre-employment medical examination

Ref : The requisition for medical examination No..... dt.....

Name of the post:

Name of the candidate:

Personal identification marks of the candidate:

1. _____

2. _____

- Initial examination
- Re-examination (refer our previous report dt _____)

The photo of the candidate to be pasted and attested by the MO carrying out the medical examination

Report

I hereby certify that I have evaluated the above candidate for medical fitness for employment in Ordnance Factory, _____ on the above post on the basis of the information provided regarding working conditions and the requirements of physical abilities for the post, candidate's personal declaration, my clinical examination and investigation results and in accordance with standing instructions of Ordnance Factory Board. On the basis of above evaluation, my opinion regarding the medical fitness of the candidate for the above post is:

- Fit
Description of restrictions/ required aids if any:
- Unfit
- Temporarily unfit for a period of _____

Date:

Signature of MO:

Name of MO:

Designation of MO:

I acknowledge that I have been advised of the content of the medical examination form. I consent to the release of medical information under description of restrictions / aids required about me given above.

Signature of the Candidate: _____

(To be signed in the presence of examining medical officer)

8. CONCLUSION

This document is expected to be useful to the medical officers, admin officers and other stakeholders in harmonization of pre-employment medical examinations. It does not pretend to provide readymade answers to all questions arising in the course of pre-appointment medical examination, but is intended to serve as a basis for working out solutions to particular problems. These Guidelines cannot and are not intended to replace the professional skill and good judgement of the medical officers that comes with training, experience, knowledge of the milieu by adherence to the precepts outlined in this document. Local circumstances and new situations may arise from time to time calling for ingenuity, higher alertness and necessary action including reference to higher quarters, if required.

Ordnance Factory Board may issue amendments to these guidelines whenever necessary, including on receipt of Govt. orders on the subject.

The guidelines will also be subjected to periodic revisions based on the feedback from factory hospitals and fresh developments in the area of pre-employment medical examination.