

**WRITTEN EXAMINATION FOR THE POST OF SAFETY OFFICER IN  
P.B Rs.9300-34800 GRADE PAY Rs.4600/-(Ex-cadre)**

Date: 14.7.2012

Duration: 3hours  
Max.Marks:100

PART A

Answer all the questions

I. Fill up the blanks.

(10 x 1 = 10)

1. Adult means a person who has completed ----- years of age.
2. The quantity of drinking water to be provided for the worker in every factory shall be at least ----- litres per day.
3. -----process results in the pollution of the general environment.
4. -----load shall be plainly marked on every hoist and no load greater than such shall be lifted.
5. Chain, rope and lifting tackle should be thoroughly examined by a competent person at least once in -----months.
6. Pressure plant is the one which operates pressure above ----- pressure.
7. There should be one safety officer wherein -----or more workers are ordinarily employed.
8. There should be one Welfare Officer in every factory wherein ----- or more workers are ordinarily employed.
9. No adult worker shall be required or allowed to work in a factory for more than-----hours in any day.
10. Hindi day is celebrated on -----

II. Abbreviations

(10 x 1 = 10)

- 11) HOER    12) ISO    13) WHO    14) LPG    15) OH&S  
16) ILO    17) EMS    18) WCA    19) ETP    20) PPE

III. Match the following

(10 x 1 =10)

21) ACID	EYES
22) FLASH POINT	DESIBEL
23) PULLEY BLOCK	DRY CHEMICAL POWDER
24) GOGGLES	HERTZ
25) NOISE	IGNITABLE VAPOUR MIXTURE
26) FIRE EXTINGUISHER	LUX
27) FREQUENCY	HAZARDOUS
28) LIGHT	THINNER
29) CRANE DRIVER	LIFTING MACHINE
30) SOLVENT	MEDICAL EXAMINATION

IV. Say True or False

- 31) The worker manufacturing the dichromate shall be examined daily to see that they do not have any lesions of the skin.
- 32) Canteen staff who handles foodstuff need not be medically examined.
- 33) Each press shall be provided with a fixed guard with a slip plate on the underside enclosing the front and all sides of the tool.
- 34) Hygrometer is used measure the humidification.
- 35) All accidents are caused by unsafe acts.
- 36) The maximum permitted speed of vehicles inside the workshop is 30 kmph.
- 37) No room in any factory shall be overcrowded to an extent injurious to the health of the workers employed therein.
- 38) No woman shall, unaided by another person, lift, carry or move by hand or on head any material, article, tools or appliance exceeding 40 Kgs in a factory.
- 39) Industrial Engineers category is considered as employed in confidential positions.
- 40) Flammable gases are those which at 20<sup>0</sup> c and a standard pressure of 101.3kPa: are ignitable when in a mixture of 13% or less by volume with air.

## V

Choose the correct answer:

(10 x 1 = 10 marks)

- 41) Dry powder and carbon dioxide extinguisher are used for  
a) Class A fire, b) Class B fire, c) Class C fire, d) Class D fire
- 42) Which is not a water borne disease,  
a) Cholera, b) Hepatitis A, c) Typhoid fever, d) dengue.
- 43) Body Mass Index is calculated wherein weight of the person in KG and his height in metres (m).  
a) Kg/m. b) Kg<sup>2</sup> /m. c) Kg/m<sup>2</sup>. d) m/kg
- 44) Every pressure vessel shall be fitted with  
a) Steam boiler, b) Safety devices, c) Vacuum cleaner, d) pulley
- 45) Centrifugal machines shall not be operated at a speed in excess of  
a) 1200 rpm, b) 1500 rpm,  
c) 1000 rpm, d) the manufacturer's rating.

- 46) An application for the registration of a factory and grant of license to it shall be submitted to the Chief Inspector in form No.  
a) 1, b) 2, c) 3, d) 4
- 47) No adult worker shall be required or allowed to work in a factory for more than-----hours in a week.  
a) 46 b) 7, c) 48, d) 49
- 48) Which one of the following industries not involving hazardous Processes.  
a) Cement industries, b) Power generating industries,  
b) Petroleum industries, d) Paper industries.
- 49) The process involving manipulation of unfritted lead compound is carried out with efficient  
a) Exhaust system, b) Drainage system,  
c) Pressure system d) Rainwater harvesting system.
- 50) In fire and explosion prone areas -----tools should not be used.  
a) Sparking type, b) Non-sparking type,  
c) bending type d) Shearing type

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### PART B

Answer any FIVE questions of the following (5 x 10 = 50)

- 1) a) Explain the importance of safety officer as per factory act 1948  
b). What are the experience and qualification required for a person to be eligible for appointment as safety officer.  
c) What are the duties of a safety officer.
- 2) a) Define Environment & Environment pollution.  
b) Explain the measures taken in your workshop to protect and improve environment under environment act 1986
- 3) Write short notes on the safety of  
a) Revolving machinery  
b) Pressure plant  
c) Hoist & Lifts

- 4) a) Define Water pollution and Trade Effluent  
b) What are the water borne diseases and the preventive measures taken in your shop to provide clean drinking water
- 5) Explain in detail the rain water harvesting system adopted in your workshop and its advantages.
- 6) a) Define air pollution and reasons for air pollution.  
b) What are the actions taken in your shops to control the air pollution.
- 7) Explain in detail the provisions of the Workmen Compensation Act.
- 8) Explain in detail the various Personal Protective Equipments used by your employees and their importance.
- 9) What are the various incentives given to the Railwaymen for learning and working in Hindi.
- 10) a) What are the various hazardous substances generated in your shop floor  
b) Explain the procedure adopted for the handling and disposal of the hazardous substances.

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