

<b>CP-8507</b>
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<b>Sub. Code</b>
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<b>11</b>
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**P.G. DIPLOMA IN ENVIRONMENTAL HEALTH AND  
SAFETY MANAGEMENT EXAMINATION,  
NOVEMBER 2017**

**PRINCIPLES OF SAFETY MANAGEMENT – GENERAL  
SAFETY**

**(2016 onwards)**

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Answer **all** questions.

1. Specify the safety clearing procedures at works sites.
2. Define HSE.
3. Mention any four safety control measures against dories. Electoral appliances regard.
4. List some of the safety instruction for Physically challenged peon.
5. List some of laws and regulations relating to HSE.
6. What are the permission limits of hide noise levels?
7. Mention any four implementation of PPE among the employees.
8. What are said to be air purifying type respirators.
9. What is meant by recognitions program?
10. What is meant by insets safety training?

**Part B**

(5 × 5 = 25)

Answer **all** questions.

11. (a) Explain about the accidents preventions tags at mechanical sites.

Or

- (b) Describe about ILO convention and recommendation on opts.

12. (a) Mention the factors when are responsible for home safety and its safetyPractices.

Or

- (b) Explain about fuel saving tips for kitchen works with safety instructions.

13. (a) State and explain about noise pollution and its rule 2000.

Or

- (b) Enumerate the notices and labels required to be provided under site legislations.

14. (a) Write a note PPE for eye and face protection.

Or

- (b) Write in detail about hand protection.

15. (a) Explain about EHS in safety.

Or

- (b) Discuss about the brainstorming as a tool for training in safety.

**Part C**

(3 × 10 = 30)

Answer **all** questions.

16. (a) Write an essay on safety incidents.

Or

(b) Discuss about safety aspect of piped retuned gas supply for domestic use.

17. (a) Write note on reporting of accidents under various statutes.

Or

(b) List the check list for controlling occupational noise.

18. (a) Write an essay on cartridge respirators.

Or

(b) Discuss about behaviors based safety training.

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<b>12</b>
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**P.G. DIPLOMA EXAMINATION,  
NOVEMBER 2017.**

**Environment, Health and Safety Management**

**FIRE PREVENTION, CONTROL AND ELEMENTARY  
FIRST AID**

**(2016 onwards)**

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Answer **all** questions.

1. What is Auto-ignition and auto-ignition temperature?
2. What are the types of fire detectors?
3. State the properties of CNG.
4. State the hazards of LPG.
5. What are the common causes of fire in small scale industries?
6. How a fire safety management operate in educational institutions?
7. What are the numerical in HAZCHEM code denotes and define each numerical?
8. State the statutes applicable to transportation of hazardous goods.

9. Abbreviate the following :
- (a) ELCB
  - (b) RCCB
  - (c) MCB
  - (d) MCCB.
10. What are the general precautions to be followed while doing a gas welding?

**Part B**

(5 × 5 = 25)

Answer **all** questions.

11. (a) Explain briefly about methods of fire extinguishing.

Or

- (b) What is the need of halons to be phased out and brief note on characteristics of Halon replacement.

12. (a) Write a brief note on vehicular use of CNG.

Or

- (b) Write a short note on fire water pump, hydrant, monitors and foam system in a tank farm.

13. (a) Describe the design and constructional features in residential places with regard to fire safety.

Or

- (b) Describe the safety measures to escape from a high rise building in case of fire.

14. (a) Write a short note on common causes of fire and explosion in transportation of hazardous goods and fire safety measures in transportation through pipelines.

Or

- (b) What to do in case of a vehicle fire? Short note on maintenance and additional precautions in motor vehicles.
15. (a) Write a short note on special requirement for high-rise building regarding electrical installations.

Or

- (b) Write a description about basic requirement of firefighting equipment in DG sets or Gas turbine generators.

**Part C**

(3 × 10 = 30)

Answer **all** questions.

16. (a) Write in detail about statutory provisions on fire preventions and control in the BOCW act.

Or

- (b) Describe in detail about fire insurance.

17. (a) Describe about the safety in domestic and industrial LPG cylinder and action to be followed in case of suspecting LPG leakage.

Or

- (b) Describe in detail about the fire safety measures taken in Godowns.

18. (a) Describe about the Interpretation of HAZCHEM code for road transport.

Or

- (b) Describe about the DOs & DON'Ts for safe handling and use of inverter.

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<b>13</b>
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**P.G. DIPLOMA EXAMINATION, NOVEMBER 2017**

**Environment, Health and Safety Management**

**ELECTRICAL AND CHEMICAL SAFETY**

**(2016 onwards)**

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Answer **all** questions.

1. What are the electrical injuries?
2. Write the first aid procedures for electrical injuries.
3. What is static electricity?
4. Define conductivity.
5. What are the hazards present in static electricity?
6. List out the air contaminants.
7. What do you mean by IDLH?
8. Define capacitor.
9. What are routes of entry for chemicals?
10. What do you mean by conductor?



**Part B**

(5 × 5 = 25)

Answer **all** questions.

11. (a) Write the instructions to avoid electrical injuries in detail.

Or

- (b) What are the recommendations for better use of light energy?

12. (a) Explain charge generating mechanism.

Or

- (b) Explain earthing and bonding.

13. (a) Write short notes on solvents and their hazards.

Or

- (b) What are the precautionary measures for chemical hazards?

14. (a) Write the general duties of the occupier.

Or

- (b) Explain the general duties of the manufacturer under the section 7-B.

15. (a) Explain the notification of the major chemical accident.

Or

- (b) Explain the chemical safety reports.

**Part C**

(3 × 10 = 30)

Answer **all** questions.

16. (a) What are the steps involved in the checklist for electrical installation?

Or

- (b) What is the clearance above ground of the lowest conductor according to IE Rule 77?
17. (a) Explain the static electricity, hazards associated with static electricity and also write the control measure for it.

Or

- (b) How will you save the electricity in?
- (i) Cooling towers
  - (ii) Heat treatment furnace
  - (iii) Illumination system.
18. (a) What are the details to be furnished in Offsite Emergency Plan?

Or

- (b) Explain the classification of flammable liquids and write the control measures for it.
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<b>14</b>
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**P.G. DIPLOMA IN ENVIRONMENT, HEALTH AND  
SAFETY MANAGEMENT EXAMINATION,  
NOVEMBER 2017**

**INDUSTRIAL SAFETY AND RISK MANAGEMENT**

**(2016 onwards)**

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Answer **all** questions.

1. Why do accidents occur?
2. Define competence mapping.
3. Define human factor.
4. Define HAZOP.
5. Define industrial hygiene.
6. Write about Forklift safety.
7. Write about Mechanical aids/equipment in lifting.
8. Write Faulty Handling of Equipments.
9. What is meant by Lapse in Safety Organizations?
10. What is meant by ventilation draft?

**Part B****(5 × 5 = 25)**Answer **all** questions.

11. (a) Briefly discuss computing injury rates.

Or

- (b) Draw “stages to art accident” and analytical “SMBO” model.

12. (a) Define the following terms :

(i) Accident

(ii) Injury

(iii) Incident

(iv) Carelessness.

Or

- (b) Explain in detail about Establishment of an Industrial Safety Policy.

13. (a) Write any five points on processing new lifting tackles and maintaining them in a shop.

Or

- (b) What is chemical detoxification?

14. (a) Explain in detail about chain defects.

Or

- (b) Explain about Gas Cutting Contaminated Drum.

15. (a) Explain “Lack of Work Organization” case study.

Or

- (b) Explain about collapse of a Jib Crane in detail.

**Part C****(3 × 10 = 30)**Answer **all** questions.

16. (a) Explain the following in detail :
- (i) Education
  - (ii) Training
  - (iii) Human factors
  - (iv) Health promotion training and
  - (v) Brain storming.

Or

- (b) Explain the following :
- (i) Layered Method and its types
  - (ii) Causative factors.
17. (a) Explain case study in detail about “Machine and Equipment”.

Or

- (b) What are the preventive measures for hazardous substances?
18. (a) Explain in detail about “Bhopal Gas Tragedy” case study.

Or

- (b) Explain in detail about the following :
- (i) Causes of Accidents
  - (ii) Scope of the safety professional.

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<b>15</b>
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**P.G. DIPLOMA IN ENVIRONMENT, HEALTH AND  
SAFETY MANAGEMENT EXAMINATION,  
NOVEMBER 2017**

**OCCUPATIONAL HEALTH AND SAFETY  
MANAGEMENT**

**(2016 onwards)**

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Answer **all** questions.

1. What are boilers and pressure vessels?
2. Define CPR.
3. What are the three ways in which body loses heat?
4. Define contrast and reflection.
5. Define acute and chronic conditions.
6. What are the types of gases? Give examples.
7. What should be included in rest periods and breaks?
8. What are the problems of weekly rest?
9. What are the various checks to be followed while workplace inspection?
10. What is meant by information?

**Part B****(5 × 5 = 25)**Answer **all** questions.

11. (a) Write a short note on the safety requirements of motorized vehicles.

Or

- (b) Write a short note on the risks connected with the following machine work.
- (i) Drilling machines
  - (ii) Machines for cutting and slicing.
12. (a) What are the ways to keep body cool?

Or

- (b) What are the steps to keep the workplace cooler?
13. (a) Write a short note on the following :
- (i) Irritant eczema
  - (ii) Allergic contact eczema.

Or

- (b) Write a short note on the following :
- (i) Ventilation and maintenance
  - (ii) Ventilation in car plants and workshops.
14. (a) Write short notes on strenuous work.

Or

- (b) Explain the important points while working in a standing position.

15. (a) What is an enterprise health services? Explain the principal tasks of enterprise health services.

Or

- (b) What are the important points in carrying out workplace inspection?

**Part C** (3 × 10 = 30)

Answer **all** questions.

16. (a) Explain the following measures to :
- (i) Improve shift conditions
  - (ii) Improve conditions of work and life.

Or

- (b) Explain the important points in observing good housekeeping.

17. (a) Explain the following :
- (i) Time spent at work
  - (ii) Normal hours of work
  - (iii) Overtime work
  - (iv) Excessive hours of work.

Or

- (b) Explain in detail about a poorly organized work and a good job.



18. (a) Explain the chemical risks to health by the following categories :
- (i) Gases
  - (ii) Genetic effects
  - (iii) Metals and other hazardous chemicals.

Or

- (b) Explain the best practices for maintaining safety and hygiene for all the workers.
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<b>16</b>
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**P.G. DIPLOMA EXAMINATION, NOVEMBER 2017**

**Environment, Health and Safety Management**

**ENVIRONMENT, HEALTH AND SAFETY LAWS**

**(2016 onwards)**

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Answer **all** questions.

1. Define Ozone Depletion.
2. Define Pollution Abatement.
3. What are the Environmental Categorizations?
4. What are the color codings of bio waste containers?
5. Mention any four types of work permits.
6. Define Housekeeping.
7. Mention the types of Cranes.
8. What are the classifications of chemicals?
9. Define LOTO.
10. What are the hazards due to radiation?

**Part B**

(5 × 5 = 25)

Answer **all** questions.

11. (a) Describe in brief about environmental protection act, 1986.

Or

- (b) Describe in brief about types of pollution and its impact on environment.

12. (a) Define noise pollution. Describe about zoning related to noise and mention the acceptable noise level during day time and night time.

Or

- (b) Mention the categories of bio waste with examples.

13. (a) Discuss in detail about training requirements related to environment and mention any four raining topics related to environment.

Or

- (b) Define 5 'S' and housekeeping.

14. (a) Describe briefly about manual material handling.

Or

- (b) What are the safety requirements while working at height?

15. (a) What is First aid? Explain CPR.

Or

- (b) Explain about industrial hygiene & workplace monitoring.

**Part C**

(3 × 10 = 30)

Answer **all** questions.

16. (a) Explain in detail about Water (prevention and control) of pollution act 1974.

Or

- (b) Explain in detail about Air (prevention & control) of pollution act 1981.

17. (a) Explain in detail about public liability insurance act 1991.

Or

- (b) Explain in detail about AIR.

18. (a) Explain in detail about ERP. Prepare a sample ERP for fire.

Or

- (b) Explain in detail about handling and storage of hazardous chemicals.

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<b>Sub. Code</b>
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<b>17</b>
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**P.G. DIPLOMA EXAMINATION, NOVEMBER 2017**

**Environment, Health and Safety Management**

**CONSTRUCTIONAL SAFETY MANAGEMENT**

**(2016 onwards)**

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Answer **all** questions.

1. What are main objectives of BOCW act 1996?
2. Define excavation.
3. List out the hot works in construction site.
4. Define National Building Code.
5. Define guard rail.
6. Define morning safety meeting.
7. Define chemical hazards.
8. Write short notes on Bombay Lift Act 1939.
9. Write a short note on earthquake resistance structure.
10. What are conditions in which scaffolding cannot be erected?

**Part B****(5 × 5 = 25)**Answer **all** questions.

11. (a) Explain with briefly about crane and lifting appliances.

Or

- (b) Write short notes on :
- (i) Roof work
  - (ii) Hoist
  - (iii) Powered access equipment.

12. (a) Discuss about the working near fragile materials.

Or

- (b) Explain undermining nearby structures.

13. (a) Explain the safe use of fixed ladder.

Or

- (b) Write down the additional provisions for excavation or tunneling work.

14. (a) Explain the design of earthquake resistant structures.

Or

- (b) Write a short note about repair and seismic strengthening of buildings.

15. (a) What are the requirements for safe work platform?

Or

- (b) Discuss about the scaffolding inspections.

**Part C**

(3 × 10 = 30)

Answer **all** questions.

16. (a) Explain with briefly about Safety and Health Provisions for construction Workers under BOCW Act 1996.

Or

- (b) Discuss about the recording fire and emergencies.
17. (a) Write down the important of safety features of elevators by Bombay lift rule.

Or

- (b) List out the safety tips :
- (i) When you approach the elevator
  - (ii) When you enter and leave the elevator
  - (iii) When riding on elevator.
18. (a) Explain IS 1893-Part 1 : 2002.

Or

- (b) Write short notes on :
- (i) Roof work
  - (ii) Lighting
  - (iii) High wind collapse.
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<b>18</b>
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**P.G. DIPLOMA EXAMINATION, NOVEMBER 2017**

**Environment, Health and Safety Management**

**SAFETY AT OIL, GAS AND NUCLEAR PROJECTS**

**(2016 onwards)**

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Answer **all** questions.

1. Write any two safety rules.
2. Define LOTO.
3. Mention few hand tools.
4. Define Safety Signs.
5. Write any Four points in scaffolding.
6. Define Safety in Abrasive blasting.
7. Define MSDS.
8. Write about unsafe act.
9. Write types of fire fighting equipments.
10. Write about 5's.



**Part B**

(5 × 5 = 25)

Answer **all** questions.

11. (a) Briefly explain about emergency response procedures.

Or

- (b) What are the rules for safety?

12. (a) Briefly explain about compressed gas cylinders.

Or

- (b) Briefly explain about safety in confined space.

13. (a) Briefly explain about safety while performing Abrasive blasting.

Or

- (b) Briefly explain about safety in crane operation's.

14. (a) Briefly explain about safety in Fork lift.

Or

- (b) Explain about prevention of falling hazard.

15. (a) Explain about conveyor safety.

Or

- (b) Explain about types of fire and methods of fire fighting.

**Part C**

(3 × 10 = 30)

Answer **all** questions.

16. (a) (i) Explain in detail about accident investigation.  
(ii) Explain detail about elementary first aid

Or

- (b) What is PPE? Explain about types of PPE from head to toe with examples?
17. (a) Explain in detail about safety during welding, grinding and gas cuffing.

Or

- (b) Explain in detail about scaffolding safety and explain the types scaffolding.
18. (a) Explain in detail about accident and near miss reporting.

Or

- (b) Explain about the first aid measure to be taken during gas poisoning heart attack, chemical splash and electric shock.
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