

CP-8088

Sub. Code

13

B.Sc. DEGREE EXAMINATION, NOVEMBER 2017

Fire and Industrial Safety Management

FIRE SAFETY — PREVENTION AND CONTROL

(2016 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Define fire load.
2. Differentiate Jet fire and flash fire.
3. Mention any four uses of natural gas.
4. List out the safety measures for petroleum products.
5. What is meant by fire safe design?
6. Give any three fire Instructions.
7. Mention any two fire precautions used in motors.
8. Define LPG and LNG.
9. List out the Application of ELCB.
10. Define DG Sets.

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) Explain the following Acts.
- (i) Factories Act (2)
 - (ii) Petroleum Act. (3)

Or

- (b) Write the Classification of fires and explain.
12. (a) Write about foam chamber.
- Or
- (b) Briefly write about fire protection system design criteria.
13. (a) Write about legislation requirements for fire safety in public places.

Or

- (b) Explain about fire Safety in small scale industries.
14. (a) Explain about transportation of hazardous goods.

Or

- (b) Explain about the fire precautions in motor vehicles.
15. (a) What are the safety measures in transformers and how it is benefit to the public?

Or

- (b) Brief about the application and use of ELCB.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Explain about Fire prevention Act 1996 and Central Rules 1993.

Or

- (b) Brief the points on
- (i) fire escape plan (5)
 - (ii) criteria for fire insurance. (5)
17. (a) Explain the fire safety measures in chemical Industries and garages.

Or

- (b) Briefly write about the safety measure in godowns and warehouses.
18. (a) Explain the fire safety in ELCB , RCCB and MLCB.

Or

- (b) How to avoid spontaneous ignition in gold storage and jute godowns?
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B.Sc. DEGREE EXAMINATION, NOVEMBER 2017

Fire and Industrial Safety Management

PERSONAL PROTECTIVE EQUIPMENTS

(2016 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. What are the hazards associated with Eye injury?
2. What are the Hazards associated with head Injury?
3. What are the emergency protections white chemical burns?
4. What is Noise?
5. What are the four things to be kept in mind while selecting PPE?
6. What are the hazards associated with leg injury?
7. What are the causes of job related skin diseases and injury?
8. List out the protective measures in skin protection.

9. Which cartridge color code is used for
- (a) Organic vapor.
 - (b) Acid gases
 - (c) Ammonia.
10. What are SCBA/BA/SCUBA/SAR/EEBD?

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) Define Personal Fall Arrest System.

Or

- (b) List out the different types of head protections.

12. (a) Explain — Mechanical, thermal and Chemical hazards.

Or

- (b) Explain about eye protection.

13. (a) Write short notes on hearing protection. What are the types of hearing protection?

Or

- (b) Explain temporary/permanent Hearing loss.

14. (a) Define PPE programme. How to successfully implement PPE programme in workplace?

Or

- (b) How to prevent Hand injury— explain?

15. (a) What are the maintenance requirements for safety Shoe?

Or

- (b) Write briefly about body protection.

Part C (3 × 10 = 30)

Answer **all** questions.

16. (a) Explain major respiratory hazards.

Or

- (b) What are the 3 basic types of PPE? Explain them in detail.

17. (a) Explain about housekeeping, ventilation and storage.

Or

- (b) Explain in detail about hand injury. What are the control measures to be taken to avoid hand injury?

18. (a) Explain about factories act 1948.

Or

- (b) Explain about health and safety at work act 1974 of UK.

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B.Sc. DEGREE EXAMINATION, NOVEMBER 2017

Fire and Industrial Safety Management

LIFTING EQUIPMENTS AND TRANSPORT SAFETY

(2016 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. What is safe lifting?
2. What are the ways to reduce forklift incidents?
3. Define factors of safety.
4. What is nicks and grazes?
5. What is a pendant control?
6. Define choker stress formula.
7. Define foresight.
8. What is the standard accident prevention formula?
9. What are the various statutory requirements in vehicle maintenance?
10. Mention any 4 fuel saving tips for two/three wheelers.

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) Write short note on stacking.

Or

- (b) Briefly explain about moving loads.

12. (a) Write a short note on defects in wire rope sling.

Or

- (b) What are the safety precautions in manual material handling?

13. (a) What are the common defects to which the wire rope slings are to be discarded?

Or

- (b) What are the duties of an appointed person in a lifting operation?

14. (a) Explain the various driving errors.

Or

- (b) Write a short note on the basic elements of defensive driving techniques.

15. (a) Write a short note on Rule 133-EIP.

Or

- (b) Explain the safety tips on vehicular use of CNG.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Explain about employees/workers.

Or

(b) Explain the safety precautions in storing corrosive substances.

17. (a) Explain the safety precautions in storing hydrocarbons (class A, B, C).

Or

(b) What are the do's and don'ts to be remembered while lifting.

18. (a) Explain the 6 conditions which an expert driver must consider while driving.

Or

(b) Explain the guidelines for transportation of hazardous wastes.

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B.Sc. DEGREE EXAMINATION, NOVEMBER 2017

Fire and Industrial Safety Management

SAFETY ON ELECTRICAL AND CHEMICAL HAZARD

(2016 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. What are the electrical injuries?
2. Write some tips to avoid dangerous shock.
3. What is static electricity?
4. What are the hazards present in static electricity?
5. What do you mean by IDLH?
6. What are routes of entry for chemicals?
7. What is the treatment for electric shock?
8. Define capacitor.
9. Write the preparation of offsite emergency plan.
10. What are the general responsibilities of the occupier?

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

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

Or

- (b) How will you save the electricity in compressed air system?

12. (a) Explain charge generating mechanism.

Or

- (b) Explain earthing and bonding.

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

Or

- (b) Write short notes on acids and bases.

14. (a) Write the general duties of the occupier under the section 7-A (1) and (2) (a) (c).

Or

- (b) Briefly explain the international standards.

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

Or

- (b) Briefly explain the flammable chemicals.

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

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

Or

- (b) Explain the static electricity, hazards associated with static electricity and also write the control measures for it.

17. (a) Explain the classification of flammable liquids and write the control measures for it.

Or

- (b) Describe the Indian Electricity Act, 1910.

18. (a) What are the details to be furnished in Offsite Emergency plan.

Or

- (b) What are the general responsibilities of:

(i) Transporter

(ii) Driver

(iii) Owner.

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B.Sc. DEGREE EXAMINATION, NOVEMBER 2017

Fire and Industrial Safety Management

ENVIRONMENTAL STUDIES

(2016 onwards)

Time : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Man made Environment
2. Biosphere
3. Non renewable energy
4. Over grazing
5. Heterotrophs
6. Pyramids
7. Hot spot
8. Particulate matter
9. Ozone
10. Pathogenic pollutants

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

11. (a) How do you make public awareness on environment issues? Explain.

Or

- (b) List out the consequences of deforestation.

12. (a) How do you conserve the fresh water resources? Define.

Or

- (b) Give an account on food problems and policy in India.

13. (a) Write a note on agricultural development and environment degradation.

Or

- (b) What are the types of ecological succession? Explain.

14. (a) Write the importance of biodiversity.

Or

- (b) What are the general methods for air pollution control? Explain.

15. (a) Brief a note on impacts of marine pollution.

Or

- (b) List out the general points to be followed during field visit.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Give a detailed account on deforestation and their effect on tribal people.

Or

- (b) Discuss the role of individual in conservation of natural resources.

17. (a) Describe the guidelines for biodiversity conservation.

Or

- (b) Explain the transmission of radioactive fall out through the food chain to human.

18. (a) Give a detailed account on the structure of a simple ecosystem from your field visit.

Or

- (b) Discuss on the major consequences of over grazing.
