

<b>C-1562</b>
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<b>Sub. Code</b>
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<b>30611</b>
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**M.Sc. DEGREE EXAMINATION, NOVEMBER 2019**

**First Semester**

**Industrial Safety Hygiene**

**SAFETY IN FACILITY DESIGN**

**(2019 onwards)**

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Answer **all** questions.

1. What do you mean by Safe System?
2. What are the 5s?
3. List out some Hand Tools.
4. Define Fire.
5. What are the Psychological Effects?
6. What do you mean by Housekeeping?
7. What are the types of Sling?
8. Define Strapping.
9. What is Sacking?
10. What is Inspection?

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

11. (a) List out the type of crane.

Or

- (b) Explain the storage of LPG.

12. (a) Explain the storage of Explosive.

Or

- (b) Explain Equipment Layout.

13. (a) List out the defects of chain and wire rope sling.

Or

- (b) Explain Personal Protection.

14. (a) Explain Working load Inspection.

Or

- (b) Explain Alarm System.

15. (a) List out some Hazardous Material.

Or

- (b) Explain Safety Device with example.

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

16. (a) Explain the storage of LNG and CNG.

Or

- (b) Explain the Layout for Hydrant System.

17. (a) Explain the LEV.

Or

(b) Explain the storage and handling of Cryogenic Liquid.

18. (a) Explain the types of Guards.

Or

(b) Explain the types of Conveyors and it's Precaution.

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<b>30612</b>
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**M.Sc. DEGREE EXAMINATION, NOVEMBER 2019**

**# Semester**

**Industrial Safety Hygiene**

**WORK STUDY AND ERGONOMICS**

**(2019 onwards)**

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Answer **all** questions.

1. What is mean by Ergonomics?
2. Write the behavioral aspects of posture.
3. Write some motivational theory.
4. How to measure the worker's performance?
5. What is mean by static load and dynamic load?
6. Define anthropometry.
7. What is mean by WMSDS?
8. How to avoid the manual handling?
9. How to design the visual display?
10. What is mean by cognitive system?

**Part B** $(5 \times 5 = 25)$ 

Answer **all** questions, choosing either (a) or (b).

11. (a) Explain about some basic body mechanics.

Or

- (b) Write short notes about "Ergonomics".

12. (a) Write the importance of motivation.

Or

- (b) Explain about any one of the motivation theory.

13. (a) What is the usage of anthropometry in ergonomics?

Or

- (b) Write short notes on guidelines for design of static work.

14. (a) Write short notes about "WMSDS" and how to avoid it?

Or

- (b) How to carry the load manually?

15. (a) How to design the display units?

Or

- (b) What is mean by cognitive system and explain shortly?

**Part C** $(3 \times 10 = 30)$ 

Answer **all** questions.

16. (a) Explain the history of ergonomics.

Or

- (b) What are the factors affect the human behavior.

17. (a) How to design the static work?

Or

(b) How to measure the worker's performance?

18. (a) Explain about virtual environments.

Or

(b) Briefly explain the postural stability.

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<b>30613</b>
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**M.Sc. DEGREE EXAMINATION, NOVEMBER 2019**

**First Semester**

**Industrial Safety Hygiene**

**SAFETY CONCEPT**

**(2019 onwards)**

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Answer **all** questions.

1. What is meant by safety inspection?
2. Define JSA.
3. List out the components of safety audit.
4. What are the types of safety audit?
5. List out some supervisory role.
6. What should I know when making the analysis and recommendations during accident investigation?
7. What is meant by accident indices?
8. List out the types of disabilities.
9. What is meant by safety education?
10. Why the safety training is importance for worker?

**Part B**

(5 × 5 = 25)

Answer **all** questions

11. (a) Write a short note on budgeting for safety.

Or

- (b) Discuss about the importance and purpose of safety policy.

12. (a) Identify the advantages and disadvantages of carrying out a safety audit of an organization's.

Or

- (b) Write a short note on implementation of audit indication.

13. (a) Describe about the domino sequence.

Or

- (b) Write a short note on reportable and non-reportable accidents.

14. (a) Discuss about the frequency rate and severity rate.

Or

- (b) Write a short note on permanent disabilities.

15. (a) Write a short note on identification of training needs.

Or

- (b) Discuss about the domestic safety and training.



**Part C**

(3 × 10 = 30)

Answer **all** questions.

16. (a) Briefly explain the planning for safety for optimization of productivity.

Or

- (b) List the documents that are likely to be examined during a safety audit.

17. (a) Explain in detail about the accident investigation and analysis.

Or

- (b) Outline the reasons why an organization should monitor and review its health and safety performance.

18. (a) Outline the practical measures that could be taken to motivate employees to comply with health and safety procedures.

Or

- (b) Briefly explain about the types of audit carried in the workplace.

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<b>30614</b>
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**M.Sc. DEGREE EXAMINATION, NOVEMBER 2019**

**First Semester**

**Industrial Safety Hygiene**

**FIRE SAFETY – DESIGN, INSTALLATION AND  
MAINTENANCE**

**(2019 onwards)**

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Answer **all** questions.

1. Define EDP
2. What is NBC?
3. List out the types of Fire Extinguisher
4. What is known as Extinguishers?
5. Define Detectors
6. Define IR Flame Detector
7. What is known as Hydrant?
8. What is the Purpose of Pump House?
9. Define Corridors and Passageways
10. List out the Fire Zones

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

11. (a) Write Short Notes on:

(i) Fire Triangle

(ii) Explosion Pentagon

Or

(b) Explain Fire Load Calculation

12. (a) Discuss the Initial Inspection of Fire Extinguisher Installation

Or

(b) Explain the Check List for Selection of Fire Extinguisher

13. (a) Explain the UV Flame Detector

Or

(b) Explain the Optical Beam Detector

14. (a) What are Parameters are followed in Underground Static Water Tanks.

Or

(b) Draw the Check List for Fire Hydrants Installation.

15. (a) Explain Occupant Load

Or

(b) What are the source of Water Supply to the Hydrant and give brief explanation

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

16. (a) Write shorts on
- (i) Physical and Chemical Properties of Fire
  - (ii) Classification of Fire Hazard.

Or

- (b) Explain in detail about the Mode of Heat Transfer.
17. (a) Explain in detail about BLEVE.

Or

- (b) Discuss the Various type of Fire Extinguisher.
18. (a) Explain the Merits and Demerits of Various Detectors.

Or

- (b) Explain in detail the about Fire Hydrant.
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<b>30616</b>
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**M.Sc. DEGREE EXAMINATION, NOVEMBER 2019**

**First Semester**

**Industrial Safety Hygiene**

**INDUSTRIAL HYGIENE I : RECOGNITION OF  
HAZARDS**

**(2019 onwards)**

Time : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Answer **all** questions.

1. Define housekeeping.
2. What are the hazards presence in cold weather?
3. What is mean by pulmonary function test?
4. Define inspection.
5. List out the hazards presence in work equipment.
6. Mention the types of machine guarding.
7. What are hazards presence in moving vehicle.
8. What is manual handling?
9. Write the impact of physical hazards.
10. What is mean by blood poisoning?

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

11. (a) Write short notes on illumination.

Or

- (b) Briefly explain industrial hygiene.

12. (a) What is the purpose of maintaining document? and mention its merits.

Or

- (b) Short notes about employee stock option (ESOP).

13. (a) How to identified damaged equipment.

Or

- (b) Short notes on principle of guard selection.

14. (a) Short notes on good housekeeping.

Or

- (b) Briefly explain about the loading of vehicles.

15. (a) Short notes on biological waste.

Or

- (b) Distinguish between mechanical and non mechanical hazards.

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

16. (a) Explain about hot works in confined spaces.

Or

- (b) How to make safe working conditions at workplace.

17. (a) Explain in detail about hearing conservation programme.

Or

- (b) What is PUWER? and explain in detail.

18. (a) Write and develop a risk assessment related to manual handling activities.

Or

- (b) Explain in detail about chemical hazards.
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