

C-4380

Sub. Code

90312

DIPLOMA EXAMINATION
FIRE AND INDUSTRIAL SAFETY
APRIL 2021 EXAMINATION
&
APRIL 2020 ARREAR EXAMINATION
First Semester
FIRE PREVENTION AND PROTECTION
(2019 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Define Fire.
2. Define fire triangle.
3. What is meant by initiating device?
4. What is meant by notification device?
5. What are the types of hydrant system?
6. What is meant by water flow alarm?
7. Define static electricity.
8. Who is national testing laboratory?
9. What is a flammable liquid?
10. What is a combustible liquid?

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) Explain about fire prevention system and its types.

Or

- (b) Explain about fire protection system and its types.

12. (a) Explain about heat sensing detectors and its function.

Or

- (b) Explain about smoke sensing detectors and its function.

13. (a) What is fire sprinkler? What are its types?

Or

- (b) Explain about water supply and distribution system for hydrant.

14. (a) What are the major components of a fire hydrant system?

Or

- (b) What are the storage guidelines of flammable and combustible liquids?

15. (a) Discuss about fire extinguisher distribution and mounting.

Or

- (b) Explain about :

- (i) PASS method.
- (ii) Firefighting methods.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) What are the different sources of heat? Explain each with example.

Or

- (b) Explain :

(i) Fire Tetrahedron

(ii) Explosion pentagon.

17. (a) Explain about testing and lifetime of fire extinguishers.

Or

- (b) What are the different types of fire extinguishers? Mention the merits and demerits of each.

18. (a) Explain about safety precautions of above ground and underground storage tanks.

Or

- (b) Electricity is an ignition source. Explain how.

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90313

DIPLOMA EXAMINATION
FIRE AND INDUSTRIAL SAFETY
APRIL 2021 EXAMINATION
&
APRIL 2020 ARREAR EXAMINATION
First Semester
PERSONAL PROTECTIVE EQUIPMENTS
(2019 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. What are types of PPE?
2. What are the types of eye protections?
3. What are the hazards to leg while working in construction?
4. What are the types of hand protection?
5. What is housekeeping?
6. What are the hazards of chemicals?
7. What is SCBA and SAR?

8. What is oxygen deficient atmosphere?
9. What is meant by active fall protection system?
10. What is meant by passive fall protection system?

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) What are the hazards to head? Explain about head protection.

Or

- (b) Explain about machine guarding.

12. (a) What are the hazards to hand? Explain about hand protection.

Or

- (b) Explain about types of RPE.

13. (a) What are the hazards to ear? Explain about hearing protection.

Or

- (b) Explain about SCBA and SAR.

14. (a) What are the hazards to leg? Explain about leg and foot protection.

Or

- (b) What are effects of exposure to loud noise?

15. (a) What are the hazards to body? Explain about body protection.

Or

- (b) Discuss about factories act.

Part C (3 × 10 = 30)

Answer **all** questions.

16. (a) Discuss in detail about hierarchy of controls.

Or

- (b) Explain about work at height and fall protection.

17. (a) Explain about selection, usage and care of RPE.

Or

- (b) Write about ventilation requirements of a hot work zone.

18. (a) Prepare a checklist for PPE at construction site.

Or

- (b) What are the responsibilities of employer and employee with respect to PPE?

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90314

DIPLOMA EXAMINATION
FIRE AND INDUSTRIAL SAFETY
APRIL 2021 EXAMINATION
&
APRIL 2020 ARREAR EXAMINATION
First Semester
ELECTRICAL SAFETY
(2019 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Define current.
2. What is hazard analysis?
3. What are the hazards of electricity?
4. What is static electricity?
5. What is earthing?
6. What are the types of fuse?
7. Define insulation.
8. What is LOTO?
9. Define grounding.
10. What is ELCB?

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) Explain about the hazards of electricity.

Or

- (b) What are the types of electrical faults?

12. (a) What are the safety is use of electricity?

Or

- (b) Explain about safe limits of current.

13. (a) What are the different types of breakers? Explain.

Or

- (b) How to protect the equipment against over voltage and under voltage?

14. (a) Explain about LOTO.

Or

- (b) What are the safety precautions in use of power tools?

15. (a) Explain about selection of equipment for different zones.

Or

- (b) Discuss about barriers and isolators.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Discuss in detail about Indian electricity rules.

Or

- (b) What are the statutory requirements from electrical inspectorate?

17. (a) Explain about arc flash. Discuss in detail about arc flash protection.

Or

(b) What are the hazards of lightning? Explain about lightning arrestor.

18. (a) What is circuit breaker? What are its types? What is the use of circuit breaker?

Or

(b) Explain about classification of hazardous zones.

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90321

DIPLOMA EXAMINATION
FIRE AND INDUSTRIAL SAFETY
APRIL 2021 EXAMINATION
&
APRIL 2020 ARREAR EXAMINATION
Second Semester
SAFETY IN MATERIAL HANDLING
(2019 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. What is Cryogenic liquids?
2. What is ergonomic?
3. What is derricks?
4. What is rail road car?
5. What is stockless?
6. List out types of ropes in rigging.
7. List out some powered industrial trunk.
8. What is escalator?
9. What is job haggard analysis?
10. What is safe road indicator?

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) List out some problem with hazards material, liquid and solids.

Or

- (b) Explain about safety considerations in manual material handling.

12. (a) List out reasons for crane accident.

Or

- (b) Explain about single road indicator.

13. (a) What is derricks and its types?

Or

- (b) Write about safety in off road vehicles?

14. (a) Explain about safe use and maintenance of sling.

Or

- (b) How to select wire rope sling?

15. (a) Safety in battery operated truck.

Or

- (b) Explain about maintenance of powered industrial truck.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Explain about forklift safety.

Or

- (b) Explain in detail about escalator safety.

17. (a) Explain in detail about powered elevator.

Or

(b) Explain in detail about derricks safety.

18. (a) How the remove the counter weight system?

Or

(b) Explain the chain pulley block safety precautions.

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90322

DIPLOMA EXAMINATION
FIRE AND INDUSTRIAL SAFETY
APRIL 2021 EXAMINATION
&
APRIL 2020 ARREAR EXAMINATION
Second Semester
CHEMICAL SAFETY
(2019 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Define Hazards.
2. Explain about Radioactive Hazards.
3. Define Hazchem code.
4. Define PPE.
5. Define water reactive substance with example.
6. Define Risk assessment.
7. How should LPG cylinder to be stored?
8. What are the types of Hazard?
9. What are the 5E to prevent accident?
10. What is meant by personal safety?

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) Explain about safety data sheet.

Or

- (b) How do chemical enter into the body?

12. (a) Explain Hazchem code.

Or

- (b) How to classify the hazardous chemical?

13. (a) Write about requirement for storage of various chemicals.

Or

- (b) List of ground guidelines for safe storage and handling.

14. (a) Explain about recommended precautions for handling and storage of LPG.

Or

- (b) What about investigation of incident?

15. (a) List out some general lab rules.

Or

- (b) Explain in detail about Housekeeping.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Explain about atmosphere monitoring.

Or

(b) Explain about radius active hazard.

17. (a) Explain about hierarchy of risk control.

Or

(b) Explain in detail about PPE for chemical.

18. (a) Explain in detail about chemical storage tank and design contribution.

Or

(b) Explain in detail about labelling and beholding of chemicals.

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90323

DIPLOMA EXAMINATION
FIRE AND INDUSTRIAL SAFETY
APRIL 2021 EXAMINATION
&
APRIL 2020 ARREAR EXAMINATION
Second Semester
BASICS OF SAFETY MANAGEMENT
(2019 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Define JSA.
2. What is Safety Inspection?
3. Write down the steps to identify risk in HIRA.
4. Abbreviation :
 - (a) NFPA, NBC
 - (b) CFR, NDSC
 - (c) ISO, OHSAS
 - (d) ILO, CAPA.
5. Write some example of unsafe act and conditions.
6. What is safety committee?
7. Different between temporary total and temporary partial disabilities.

8. What is safety monitoring?
9. What is communication and its types?
10. What is safety t-s core?

Part B

(5 × 5 = 25)

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

11. (a) Explain incident recall technique.

Or

- (b) Explain safety committee.

12. (a) Different between :

- (i) Reportable and non-reportable accident.
- (ii) Direct and Indirect cost.

Or

- (b) Explain principles of accident prevention.

13. (a) Draw one safety audit check list.

Or

- (b) Explain about domino sequence.

14. (a) Explain about how to calculate accident ideas and accident rate.

Or

- (b) Explain brief about :

- (i) Temporary total disability
- (ii) Temporary partial disability
- (iii) Permanent total disability
- (iv) Permanent partial disability.

15. (a) Explain safety training and its importance.

Or

(b) Explain steps in developing training methods.

Part C

(3 × 10 = 30)

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

16. (a) Explain about roles and responsibilities of safety officers in Industry.

Or

(b) Explain about

(i) Unsafe act and Unsafe conditions with example.

(ii) Fire road calculation as per the categories of industry.

17. (a) Explain about :

(i) Fire prevention and protection with example.

(ii) Accident prevention and protection with example.

Or

(b) Explain about JSA.

18. (a) How we calculate safety performance monitoring?

Or

(b) Explain :

(i) Domino sequence

(ii) 55

(iii) CA, PA with example.

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90324

**DIPLOMA EXAMINATION
FIRE AND INDUSTRIAL SAFETY
APRIL 2021 EXAMINATION
&
APRIL 2020 ARREAR EXAMINATION
Second Semester
ENVIRONMENTAL STUDIES
(2019 onwards)**

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Define environmental science.
2. Define manmade environment.
3. What is deforestation?
4. Explain energy components.
5. Define monoculture.
6. Define xerosere.
7. Define range.
8. Where the mudumalai sanctuary is situated?
9. What is noise?
10. Explain pesticide pollution.

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) What is an atmosphere? Explain its types.

Or

- (b) Explain biosphere and give examples.

12. (a) Give any five direct uses of forest to human society.

Or

- (b) Give the impacts of dams.

13. (a) Explain drought.

Or

- (b) Explain non-renewable energy resources.

14. (a) Classify India based on its biography.

Or

- (b) Summarize the problems caused by fertilizers and pesticides.

15. (a) Explain the types of water pollution.

Or

- (b) Write an account on rain water harvesting.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Explain environmental pollution and the need for public awareness on environmental studies.

Or

- (b) Write an essay on water resources.

17. (a) Write short note on food chain and food web.

Or

(b) Write an essay on pond ecosystem.

18. (a) What are the salient features of wild life protection Act 1972 and forest conservation Act 1972?

Or

(b) What are the merits and demerits of biomass energy?

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90331

DIPLOMA EXAMINATION
FIRE AND INDUSTRIAL SAFETY
APRIL 2021 EXAMINATION
&
APRIL 2020 ARREAR EXAMINATION

Third Semester

**INDUSTRIAL SAFETY MANAGEMENT AND
CONTINUOUS IMPROVEMENT CONCEPTS**

(2019 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. What is the purpose of employee compensation?
2. Define safety audit.
3. What is NDT?
4. What is a layout?
5. Define industrial hygiene.
6. Define RPE.
7. What are the types of crane?
8. What is confined space?

9. Name any two sources of static electricity.
10. What is GEMBA?

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) What are the costs of an accident? Explain.

Or

- (b) What is an accident? Why is it important to investigate and report the accidents?

12. (a) What are the guidelines to store chemicals safely?

Or

- (b) What are the fire protection system required for an industrial building? Discuss briefly.

13. (a) What are the hazards and control measures of vibration? Explain.

Or

- (b) Discuss about the minimum welfare facilities to be provided to employees.

14. (a) Narrate the hazards of machineries and the types of machine guarding.

Or

- (b) What is a hot work? What are the safety measures to be taken during grinding?

15. (a) Explain about KAIZEN.

Or

- (b) Explain about 5 S.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Give any 10 safety features/measures required for an industry.

Or

- (b) Explain in detail about safety in handling and safe disposal of hazardous materials.

17. (a) Define noise. What are the effects of noise exposure? How to control it?

Or

- (b) Discuss in detail about safety in selection and use of cranes.

18. (a) Explain in detail about welding safety.

Or

- (b) Explain :

- (i) 5 GEMBA principles.
(ii) POKA YOKE.
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90332

DIPLOMA EXAMINATION
FIRE AND INDUSTRIAL SAFETY
APRIL 2021 EXAMINATION
&
APRIL 2020 ARREAR EXAMINATION
Third Semester
SAFETY IN CONSTRUCTION SECTOR
(2019 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. What is PPE?
2. What are the effects of noise?
3. What are the effects of vibration?
4. Define first aid.
5. What is excavation?
6. What is trench?
7. What is rigging?
8. What is SWL?
9. What is SLI?
10. Mention any two types of scaffolding.

Part B

(5 × 5 = 25)

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

11. (a) What are the health risks to construction workers?

Or

- (b) What are the effects of lead poisoning and exposure to toxic fumes?

12. (a) What are the types of soil? What are the types of soil test?

Or

- (b) What are the safety precautions while blasting?

13. (a) What are the hazards of excavation?

Or

- (b) What are the control measures of confined space hazards?

14. (a) Explain about safety in demolition projects.

Or

- (b) What are the requirements for testing and examination of cranes?

15. (a) What are the hazards of compressed air tools?

Or

- (b) What are the hazards of cartridge operated tools?

Part C

(3 × 10 = 30)

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

16. (a) Explain in detail about :
- (i) Head protection
 - (ii) Hand protection
 - (iii) Foot protection
 - (iv) Hearing protection
 - (v) Skin protection.

Or

- (b) Explain in detail about requirements of respiratory protection in construction.
17. (a) What are the safety to be followed while handling, storage and transportation of explosives?

Or

- (b) What are the hazards in tunneling? Explain how to control.
18. (a) Discuss in detail about manual handling.

Or

- (b) What are the types, hazards and control measures of scaffolding.
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90333

DIPLOMA EXAMINATION
FIRE AND INDUSTRIAL SAFETY
APRIL 2021 EXAMINATION
&
APRIL 2020 ARREAR EXAMINATION
Third Semester
EHS LAWS AND ACTS
(2019 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. What is a factory?
2. Who is an occupier?
3. Give any two hazards of batteries.
4. What is the maximum sound level permitted at residential area during day time and night-time?
5. What are the sources of air pollution?
6. What is emergency response plan?
7. What is MSDS?

8. What is SMPV?
9. What is ANSI?
10. What is environmental management system?

Part B (5 × 5 = 25)

Answer **all** questions.

11. (a) Explain about the provisions relating to hazardous processes.

Or

- (b) What are the duties of inspecting staff?

12. (a) Discuss about biomedical waste management rules 1989.

Or

- (b) Discuss about prevention and control of air pollution.

13. (a) How to prepare emergency response plan? Discuss.

Or

- (b) What are the safety responsibilities of employees handling hazardous chemicals?

14. (a) Explain about Indian boiler act 1923.

Or

- (b) Explain about pesticides act.

15. (a) Explain about workmen compensation act.

Or

(b) Explain about mines act, 1952.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Discuss in detail about Indian Factories Act, 1948.

Or

(b) Explain in detail about noise pollution rules, 2000.

17. (a) What is MSIHC rules, 1989? Explain.

Or

(b) What is SDS? Explain about its sections.

18. (a) What are the safety considerations mentioned in electricity rules? Explain.

Or

(b) Discuss in detail about petroleum rules.

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90334

DIPLOMA EXAMINATION
FIRE AND INDUSTRIAL SAFETY
APRIL 2021 EXAMINATION
&
APRIL 2020 ARREAR EXAMINATION
Third Semester
ACCIDENT INVESTIGATION CONTROL,
INVESTIGATION AND REPORTING
(2019 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. What is meant by reportable accident?
2. What is meant by non-reportable accident?
3. What is SHELL model?
4. Mention heinrich triangle.
5. What is elimination?
6. What is substitution?
7. What is SCAT?
8. What is STEP?
9. What is non disabling injury?
10. What is incidence rate?

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) What are the accident types?

Or

(b) What is multi causation theory?

12. (a) What is MORT?

Or

(b) What is root cause analysis?

13. (a) What is accident analysis and barrier function?

Or

(b) What are the different types of PPE?

14. (a) What is barrier analysis and change analysis?

Or

(b) How to carry out work place injury assessment?

15. (a) How to calculate frequency rate and severity rate?

Or

(b) Explain about factories act, 1948.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Explain the importance of accident investigation and reporting.

Or

(b) What are the various theories of accident investigation?

17. (a) What are the steps to carry out accident investigation?

Or

(b) Discuss in detail about domino theory.

18. (a) Why it is important to report accidents to internal management?

Or

(b) How to motivate employees towards accident reporting?

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90341

DIPLOMA EXAMINATION
FIRE AND INDUSTRIAL SAFETY
APRIL 2021 EXAMINATION
&
APRIL 2020 ARREAR EXAMINATION
Fourth Semester
FIRE DESIGN ENGINEERING
(2019 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. What are Class of fire?
2. What are the types of Heat transfer?
3. What are the types of Fire Extinguisher?
4. Explain about Fire Blanket method.
5. What are the types of Fire Hydrant?
6. What is Fire hydrant system?
7. Explain CO₂ Suppression System.
8. Expand Fire.
9. Define Smoke detector.
10. What is the use of Flame detector?

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) What are the classes of Fire? With example.

Or

- (b) Explain about the Fire Fighting Techniques.

12. (a) Draw and explain the parts in Fire Extinguishers.

Or

- (b) Types of Fire Extinguisher and uses.

13. (a) Checklist for fire hydrant system.

Or

- (b) Explain any 3 types of sprinkler system.

14. (a) Explain detail about installation of clean agent suppression system.

Or

- (b) Explain about installation of CO₂ suppression system.

15. (a) Explain the types of Fire alarm system.

Or

- (b) Draw the layout of
- (i) Addressable Fire alarm
 - (ii) Conventional Fire alarm.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Classification of occupancies as per NBC norms.

Or

- (b) Explain of class of fire with example.

17. (a) Explain about Fire extinguishers, it parts and types.

Or

- (b) Make the check list for fire extinguisher service and maintained.

18. (a) Explain about installation of Fire pump room.

Or

- (b) Explain about types of sprinklers system.

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90342

DIPLOMA EXAMINATION
FIRE AND INDUSTRIAL SAFETY
APRIL 2021 EXAMINATION
&
APRIL 2020 ARREAR EXAMINATION
Fourth Semester
PROCESS SAFETY MANAGEMENT
(2019 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Define Hazard.
2. What is Block flow diagram?
3. What is PHA?
4. Expand HAZOP, FMEA, FTA–PHA.
5. What is mechanical integrity?
6. What is safety training?
7. What is incident?
8. Define accident.

9. Define Hot work.
10. What is safe work permit?

Part B (5 × 5 = 25)

Answer **all** questions.

11. (a) Explain about process chemistry.
Or
(b) Explain about electrical classification.
12. (a) Explain about limitations of PHA.
Or
(b) What are the elements of operating procedure.
13. (a) Explain about compliant audit.
Or
(b) Explain in detail about safety training.
14. (a) Explain about the investigation technique.
Or
(b) Explain about the investigation questionnaire.
15. (a) Explain about employer responsibilities.
Or
(b) Explain about on site emergency plan.

Part C (3 × 10 = 30)

Answer **all** questions.

16. (a) Explain about piping and instrumentation diagrams.
Or
(b) Explain about all elements of PSM.

17. (a) Explain in detail about Air.

Or

(b) Explain in detail about derricks safety.

18. (a) Explain about deciding the methods of PHA.

Or

(b) Explain about description of operating procedure.

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90343

DIPLOMA EXAMINATION
FIRE AND INDUSTRIAL SAFETY
APRIL 2021 EXAMINATION
&
APRIL 2020 ARREAR EXAMINATION
Fourth Semester
HAZARD IDENTIFICATION, RISK ASSESSMENT AND
RISK CONTROL
(2019 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. What is human reliability analysis?
2. Define : SIL.
3. Write about computer HAZOP.
4. Give examples of flammable gases.
5. Write about third party certification of instruments.
6. What is Hazard?
7. Define : Risk register.

8. What is risk estimation?
9. Define : HAZID.
10. Write about “What if analysis”?

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) Draw and explain Risk matrix and risk ranking.

Or

- (b) Explain : ALARP.

12. (a) Write about evaluation of plant hazard selecting techniques.

Or

- (b) What are the steps in risk assessment?

13. (a) Explain : Layer of protection analysis.

Or

- (b) Write about fault tree analysis.

14. (a) Explain : FMEA methodology.

Or

- (b) Write about SIL calculation for safety instrument 100 p.

15. (a) Explain: Explosion protection.

Or

- (b) Write about electrical area classification.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) SIL determination techniques.

Or

(b) Write about automated FMEA concepts.

17. (a) Explain : SIL Certifications and standards.

Or

(b) Write about HAZOP methodology.

18. (a) Give the comparison of various PHA methods.

Or

(b) Explain in detail about functional safety.

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90344

DIPLOMA EXAMINATION
FIRE AND INDUSTRIAL SAFETY
APRIL 2021 EXAMINATION
&
APRIL 2020 ARREAR EXAMINATION
Fourth Semester
SAFETY INSPECTION AND AUDIT
(2019 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Give the general principles of environmental audit.
2. What is EIA?
3. What is OH & S Policy?
4. Write about IS 14489 : 1998.
5. Write about Closing meeting in audit.
6. Give the importance of workplace inspection.
7. What is Hazard?
8. Give the objectives of safety audit.
9. Write the pre audit activities.
10. What is environmental policy?

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) Write about hazards in work place.

Or

- (b) Explain : Safety inspection team.

12. (a) Write about emergency planning.

Or

- (b) How to report audit findings? Explain.

13. (a) Explain the steps in ISO 14001.

Or

- (b) Explain : General principles of LCA.

14. (a) How to develop OH & S Policy? Explain.

Or

- (b) Explain the key changes in ISO 45001.

15. (a) Give features of explosion index.

Or

- (b) Draw the safety audit questionnaire.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Explain : High Level Structure (HLS).

Or

- (b) Give the comparison between ISO 45001 & OHSAS 18001.

17. (a) Explain : ISO 14020.

Or

(b) Write about ISO 14024.

18. (a) Explain : EIA in EMS.

Or

(b) Explain the post audit activities.

C-4395

Sub. Code

90311

DIPLOMA EXAMINATION

FIRE AND INDUSTRIAL SAFETY ENGINEERING

APRIL 2021 EXAMINATION

&

APRIL 2020 ARREAR EXAMINATION

First Year

COMMUNICATIVE ENGLISH

(2016 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. What is education compared to?
2. What strengths and achievements are pinpointed by Kalam?
3. What makes Nehru own himself as an Indian and a Hindu?
4. Who are wobblers and turn-coats?
5. What vision, according to Sarojini Naidu, finds an echo in the hearts of all?
6. What inedible dishes were described in Seton's "Wildwood Wisdom"?

7. Define Noun.
8. Give two examples for co-ordinate conjunction.
9. Fill in the blanks :
 - (a) _____ elephant is the biggest animal.
 - (b) The boy is _____ wise one.
10. The policeman said to the man, "Do you see the thief" –
Change into indirect speech

Part B (5 × 5 = 25)

Answer **all** questions.

11. (a) What is the duty of society to the artist and the artist to society?

Or

- (b) Write a note on creative and intellectual education.

12. (a) Why was Balfour agonized when he had to make a speech?

Or

- (b) How does the teacher try to repair the damage done and with what result?

13. (a) What is the shortcoming of new curricula, according to Margaret Atwood?

Or

- (b) What does Sarojini Naidu say about the vision of love?

14. (a) Write a note on the types of sentences.

Or

(b) Write a note on pronoun and its types.

15. (a) Explain the uses of definite articles.

Or

(b) Write the basic rules of reported speech.

Part C (3 × 10 = 30)

Answer **all** questions.

16. (a) What advice does Indira Gandhi give the youth?

Or

(b) Write an essay on the conflict between the state and artist.

17. (a) Show how the title “Crime and punishment” is a satire on the new-fangled notions of teaching that a teacher has to practise.

Or

(b) Write an essay on Sarojini Naidu’s vision of Love, Religion and Patriotism.

18. (a) Fill in the blanks with the suitable forms of the verb : (am, is, are, was, were, shall be, will be, etc)

(i) Neither she nor I ————— fond of cheap film songs.

(ii) All the sums you did ————— wrong.

(iii) The poor ————— always with us.

(iv) You ————— happy, if you do your duty.

- (v) The British _____ the rulers of India thirty years ago.
- (vi) One of them _____ a rascal; the others _____ good.
- (vii) Many a man _____ selfish and thoughtless.
- (viii) They _____ ready tomorrow morning.
- (ix) Last year he _____ the captain of the college team.

Or

- (b) Write an essay on uses and omission of articles.

C-4396

Sub. Code

90312

DIPLOMA EXAMINATION
FIRE AND INDUSTRIAL SAFETY ENGINEERING
APRIL 2021 EXAMINATION
&
APRIL 2020 ARREAR EXAMINATION
First Year
FIRE SAFETY – PREVENTION AND CONTROL
(2016 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Define jet fire.
2. What is pool fire?
3. What is meant by flammable and combustible?
4. What is fire extinguishers?
5. What is temporary occupancies?
6. Define fire load.
7. Expand LPG, CNG, LNG.
8. What is fire hydrant system?

9. What is ELCB?
10. What is spontaneous combustion?

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) What is fire and explain about class of fire?

Or

- (b) What is fire point, flash point, jet fire and pool fire?

12. (a) Explain about fire extinguisher parts with diagram.

Or

- (b) Create maintenance and inspection checklist for fire extinguisher.

13. (a) Write short notes on fire safety in public places.

Or

- (b) Write short notes on fire safety in shopping malls.

14. (a) Explain about fire safety in transportation of hazardous goods.

Or

- (b) Explain about safety in luxury bus.

15. (a) Write short notes on invertor's safety.

Or

- (b) Explain in detail about fire safety in ELCB, RCCB.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Explain in detail about classification of fires and its extinguishers method.

Or

- (b) Illustrate in detail about fire control measures in educational buildings.

17. (a) Explain in detail about fire safety in temporary occupancies.

Or

- (b) Explain in detail about fire safety measures in vehicles operated by CNG, LNG and LPG.

18. (a) Explain in detail about safety in transformers, DG sets, Sub-stations and cable gallery.

Or

- (b) Explain about hot wok safety.

C-4397

Sub. Code

90313

DIPLOMA EXAMINATION

FIRE AND INDUSTRIAL SAFETY ENGINEERING

APRIL 2021 EXAMINATION

&

APRIL 2020 ARREAR EXAMINATION

First Year

LIFTING EQUIPMENT AND TRANSPORT SAFETY

(2016 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Define stop sign.
2. Define Hazards.
3. What is EIP?
4. What are the types sling?
5. Define Shackles.
6. What is SMPVR?
7. Name some Cranes.

8. What do you mean by Blind Spot?
9. Define safe working load.
10. List out the types of Hitch.

Part B

(5 × 5 = 25)

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

11. (a) Explain about TREMCARD.

Or

- (b) Write the methods of manual handling.

12. (a) Write the Advantages and Disadvantage of electrical forklift.

Or

- (b) Explain the EIP.

13. (a) What are the factors influencing the selection of handling materials?

Or

- (b) Explain the Crane safety inspection.

14. (a) List out some common defects in Sling.

Or

- (b) Explain Defensive Driving and its Elements.

15. (a) Explain the breaking distance and total stopping distance.

Or

- (b) Explain Vehicles Maintenance.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) List out the UN classification of Hazardous (or) Dangerous goods.

Or

- (b) Write the Do's and Don't's in forklift.

17. (a) Explain the Storage of corrosive substances.

Or

- (b) Briefly explain about Manual handling.

18. (a) Explain Maintenance tips.

Or

- (b) Explain Safe driving tips.

C-4398

Sub. Code

90314

DIPLOMA EXAMINATION

FIRE AND INDUSTRIAL SAFETY ENGINEERING

APRIL 2021 EXAMINATION

&

APRIL 2020 ARREAR EXAMINATION

First Year

**OCCUPATIONAL HEALTH AND
SAFETY MANAGEMENT**

(2016 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Define accident.
2. What is first aid?
3. What is Noise?
4. What is Illumination?
5. What is Acute and Chronic conditions?
6. What is ventilation?
7. Define Ergonomics.
8. What are the disadvantages of shift work?

9. What is the aim of check list?
10. What is housekeeping?

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) Explain in details about welding safety.

Or

- (b) Explain in details about electricity and its risks at workplace.

12. (a) Explain about body heat balance.

Or

- (b) Explain about lighting in workplace.

13. (a) Write short notes on occupational exposure limits.

Or

- (b) Discuss about preventing measures of chemicals.

14. (a) Explain about work at height.

Or

- (b) Explain in details about way to improve work organisation.

15. (a) Write about objectives for safety, health and well being at work.

Or

- (b) Explain in detail about safety and hygiene practices.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Explain in detail about good housekeeping and methods of order and cleanliness.

Or

- (b) Explain about first aid.

17. (a) Explain in detail about methods of noise control.

Or

- (b) Explain in detail about atmospheric pollution.

18. (a) Explain in detail about safe working position standing and sitting.

Or

- (b) Create the checklist on PPE.
-

C-4399

Sub. Code

90315

DIPLOMA EXAMINATION

FIRE AND INDUSTRIAL SAFETY ENGINEERING

APRIL 2021 EXAMINATION

&

APRIL 2020 ARREAR EXAMINATION

First Year

SAFETY ON ELECTRICAL AND CHEMICAL HAZARDS

(2016 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Define burns and its types.
2. What is fuse?
3. What is static electricity?
4. What is conductivity?
5. Expand IDLH.
6. What is current?
7. Define acid and base.

8. List out any three electrical safety standards and regulations.
9. What is MSDS?
10. What is PSDC?

Part B

(5 × 5 = 25)

Answer **all** questions

11. (a) How to avoid electrical injuries?

Or

- (b) Explain in details about ELCB.

12. (a) List out effect of the static charge.

Or

- (b) Explain about electro static hazards and their controls.

13. (a) Explain the way to chemical entering into our body.

Or

- (b) Discuss about types and effects of chemicals.

14. (a) Explain about statutory information of electrical installation.

Or

- (b) Explain in detail about OSHA of USA.

15. (a) Write about safety in handling and storage of hazardous chemicals.

Or

- (b) Explain in detail about Rule 14 preparation of off – site emergency plan.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Explain in detail about electrical injuries and its first aid procedures.

Or

- (b) Explain about methods for controlling the static electricity.

17. (a) Explain in detail about PPE for chemical.

Or

- (b) Explain about MSDS with all elements.

18. (a) Explain in detail about management responsibility for electricity installations.

Or

- (b) Explain about the petroleum Act 1934.

C-4400

Sub. Code

90321

DIPLOMA EXAMINATION

FIRE AND INDUSTRIAL SAFETY ENGINEERING

APRIL 2021 EXAMINATION

&

APRIL 2020 ARREAR EXAMINATION

Second Year

COMMUNICATIVE ENGLISH — ADVANCE

(2016 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Define communication.
2. Mention any two telephone etiquettes.
3. What is homonyms?
4. What is gerunds?
5. What is meant by controlled compositions?
6. What is adverb?
7. Define skimming.
8. What is stress?

9. What is gesture important for non verbal communication?
10. What is note – making?

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) How to you avoid barriers of communication?

Or

- (b) Explain different kinds of verbal communication.

12. (a) Differentiate relative clause and conditional clause.

Or

- (b) Explain about kinds of composition with examples.

13. (a) Write five sentence stressing falling and rising intonation.

Or

- (b) Write short notes on gesture and posture.

14. (a) Write a short notes on wrong position of adverbs.

Or

- (b) Illustrate on confusion of number in English.

15. (a) Draft a telegram to your friends about your birthday.

Or

- (b) Explain on preparing portfolios.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Write an essay on different kinds of communication.

Or

- (b) Explain on relative clauses and conditional clauses.

17. (a) Change the following into passive voice.

- (i) Some one has cleaned the cars.
- (ii) I did not beat her.
- (iii) She has written a book.
- (iv) Did she do her cooking?
- (v) I gave him a book for his birthday.
- (vi) His grand mother looked after him.
- (vii) Mother made a cake yesterday.
- (viii) Does your mum pick you up?
- (ix) The police have caught the thief.
- (x) I will never forget this experience.

Or

- (b) Write an essay on parts of speech.

18. (a) Explain in detail about visual aids.

Or

- (b) Write an essay on different types of reading.

C-4401

Sub. Code

90322

DIPLOMA EXAMINATION

FIRE AND INDUSTRIAL SAFETY ENGINEERING

APRIL 2021 EXAMINATION

&

APRIL 2020 ARREAR EXAMINATION

Second Year

**GENERAL SAFETY MANAGEMENT (PRINCIPLES AND
POLICIES)**

(2016 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Define frequency rate.
2. What is safety tag?
3. Expand LPG, CNG.
4. Give some fuel saving tips to kitchen workers.
5. What is noise pollution?
6. What is reportable accident?
7. Define PPE and its types.

8. What is occupational diseases?
9. What is safety training and education?
10. What is housekeeping?

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) List out the responsibilities of supervisor for safety at work place.

Or

- (b) Explain in details about safety tags.

12. (a) Explain about safety aspect of LPG in domestic use.

Or

- (b) Explain about home safety.

13. (a) List out some notifiable occupational diseases.

Or

- (b) Discuss about MSME development act.

14. (a) Explain about PPE for foot and leg protections.

Or

- (b) Explain in details about PPE for gas and electrical welding.

15. (a) Write about safety induction training.

Or

(b) Explain in detail about tool box talk.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Explain in detail noise pollution (regulation and controls) rules 2000.

Or

(b) Explain about housekeeping and safety cleaning procedures at work sites.

17. (a) Give some safety instructions for kids, Elders and Physically challenged persons.

Or

(b) Explain in detail types of PPE.

18. (a) Explain in detail about reportable accident and non reportable accidents.

Or

(b) Briefly explain about brainstorming session.

C-4402

Sub. Code

90323

DIPLOMA EXAMINATION

FIRE AND INDUSTRIAL SAFETY ENGINEERING

APRIL 2021 EXAMINATION

&

APRIL 2020 ARREAR EXAMINATION

Second Year

**HEALTH ASPECTS, FOOD HYGIENE AND SAFETY
(HACCP)**

(2016 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Define body mass index.
2. What is occupational stress management?
3. Mention few infections disease.
4. Mention few food borne micro organisms.
5. What is food microbiology?
6. What are the steps in HACCP?
7. Define borne illness.
8. What are the types of contaminants in food?

9. What is food labeling?
10. List out few HACCP benefits.

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) What is bird flu? How to prevent it?

Or

- (b) Explain in details about benefits of physical exercise.

12. (a) What are the seven principles in HACCP?

Or

- (b) Explain about food contamination and spoilage.

13. (a) Write short notes on micro nutrient.

Or

- (b) What are the special rules for bar tenders and bar waiters?

14. (a) Explain about personal hygiene.

Or

- (b) List out some tips for healthy diet.

15. (a) Write about food allergies and control of food borne illness.

Or

- (b) Explain in detail about recent trends in food packaging and technology.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Explain in detail about occupational stress management.

Or

- (b) Explain about bird flu and prevention.

17. (a) Explain in detail about food additives.

Or

- (b) Explain in detail about food poisoning.

18. (a) Explain in detail about hygiene food handling.

Or

- (b) Discuss in details about ISO 22000.

C-4403

Sub. Code

90324

DIPLOMA EXAMINATION

FIRE AND INDUSTRIAL SAFETY ENGINEERING

APRIL 2021 EXAMINATION

&

APRIL 2020 ARREAR EXAMINATION

Second Year

**EHS LAWS – (INTERNATIONAL STANDARDS AND
REGULATIONS)**

(2016 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Define safety policy.
2. What is PTW?
3. What is fire?
4. What is Emergency response plan?
5. What is machine guard?
6. What is SOP?
7. Define crane and its types.

8. What is WAH?
9. What is radiation?
10. What is noise?

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) Explain in details EHS committee.

Or

- (b) Explain in details about SMPV rules.

12. (a) Explain about Lighting and ventilation.

Or

- (b) Explain about Rest pause in work place.

13. (a) Write short notes on safe operating practices and procedure.

Or

- (b) Discuss about fire prevention and protection.

14. (a) Explain about manual material handling with steps.

Or

- (b) Explain in details about compressed gas cylinders.

15. (a) Write about first aid.

Or

(b) Explain in detail about ISO 9001.

Part C (3 × 10 = 30)

Answer **all** questions.

16. (a) Explain in detail about Tamilnadu safety officer rules 2005.

Or

(b) Explain about factory act 1948.

17. (a) Explain in detail about permit to work.

Or

(b) Explain in detail about machinery build in safety designing in aspects.

18. (a) Explain in detail about safety in handling and storage of hazardous chemicals.

Or

(b) Explain in detail about OHSAS 18001.

C-4404

Sub. Code

90325

DIPLOMA EXAMINATION

FIRE AND INDUSTRIAL SAFETY ENGINEERING

APRIL 2021 EXAMINATION

&

APRIL 2020 ARREAR EXAMINATION

Second Year

**ENVIRONMENTAL SAFETY AND HAZARDOUS WASTE
MANAGEMENT**

(2016 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Define environment.
2. What is water pollution?
3. What is Noise?
4. What are the types of environmental standards?
5. What is CREP?
6. What is 3R?
7. Define TREM Card.
8. What is hazardous waste?

9. What are the major pollutants from vehicle?
10. List out some GOI scheme.

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) Write objectives of environmental police.
Or
(b) Explain in details about environmental impact assessment.
12. (a) Give some important Indian environmental standards.
Or
(b) Explain about the hazardous waste rules 2008.
13. (a) Write objectives / goal of Eco-labelling scheme.
Or
(b) Discuss about corporate responsibilities for environmental protection.
14. (a) Explain about Bio-medical waste treatment methods.
Or
(b) Explain the composition and contamination of electronic waste.
15. (a) Write about PUG test.
Or
(b) Explain in detail about noise pollution.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Explain about hazardous waste treatment methods.

Or

- (b) Explain about environmental categorization.

17. (a) Explain in detail about rain water harvesting.

Or

- (b) Explain about biomedical waste management and handling rules 1998.

18. (a) Explain about key environmental challenges, causes and its impacts.

Or

- (b) Explain about the implementation and certification of OHSAS 18001.

C-4405

Sub. Code

90331

DIPLOMA EXAMINATION
FIRE AND INDUSTRIAL SAFETY ENGINEERING
APRIL 2021 EXAMINATION
&
APRIL 2020 ARREAR EXAMINATION
Third Year
DISASTER MANAGEMENT
(2016 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. What is disaster plan?
2. List out any three organizations related to disaster management.
3. What is chemical disaster?
4. What is crisis management plan in hospital?
5. What is ERP?
6. What is earthquake?
7. Define mock drill.

8. List out some benefits of mock drill exercise.
9. What is flood?
10. List out few disaster management web resources.

Part B

(5 × 5 = 25)

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

11. (a) Explain in details about the disaster management Act 2005.

Or

- (b) Explain in details about salient features of disaster management.
12. (a) How to create awareness and facilities in chemical disaster.

Or

- (b) Explain about the plan for evacuation.
13. (a) Write short notes OCHA.

Or

- (b) Explain the general structural safety for cyclone.
14. (a) Explain about emergency organisation.

Or

- (b) Explain in details about emergency mock drill.
15. (a) List out the some major disaster in India.

Or

- (b) Explain in detail about Do's and Don'ts under risk of Tsunami.

Part C

(3 × 10 = 30)

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

16. (a) Explain in detail about duties of communities, private sectors, enterprises and other agencies in disaster management.

Or

- (b) Explain about IS 1893 protection of earthquake.
17. (a) Explain in details about On-Site emergency plan and drill.

Or

- (b) Explain in detail about Do's and Don'ts during and after earthquake.
18. (a) Explain about medical preparedness in national disaster management.

Or

- (b) Explain in details about disaster management plan for districts.
-

C-4406

Sub. Code

90332

DIPLOMA EXAMINATION
FIRE AND INDUSTRIAL SAFETY ENGINEERING
APRIL 2021 EXAMINATION
&
APRIL 2020 ARREAR EXAMINATION
Third Year
CONSTRUCTIONAL SAFETY MANAGEMENT
(2016 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Define Excavation.
2. What is crane?
3. What is First aid?
4. What is hoist?
5. What is side housekeeping?
6. List out type of sand in Excavation safety.
7. What is PPE?
8. What is WAH?

9. What is scaffolding erection?
10. Define welfare facilities.

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) Explain in detail about daily work cycle.

Or

- (b) Explain about hoist, crane and lifting appliances safety.

12. (a) Write about safety in working of fragile materials.

Or

- (b) Explain about PPE and its types.

13. (a) Explain in detail NBC 2005.

Or

- (b) Write in details about Part four in IS 1893.

14. (a) Write about common causes for fire at site.

Or

- (b) Explain in details about Elevators / lift safety.

15. (a) List out all parts in scaffolding.

Or

- (b) Write short notes on portable ladder safety.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Explain in details about safety work cycle.

Or

(b) Explain in details about scaffolding safety.

17. (a) Explain the salient features of NBC 2005.

Or

(b) Explain about Excavation hazards and safety in construction.

18. (a) Explain in detail about design for earthquake structure in BIS standards.

Or

(b) Explain in detail about Emergency preparation in case of fire in construction.

C-4407

Sub. Code

90333

DIPLOMA EXAMINATION

FIRE AND INDUSTRIAL SAFETY ENGINEERING

APRIL 2021 EXAMINATION

&

APRIL 2020 ARREAR EXAMINATION

Third Year

INDUSTRIAL HYGIENE AND SAFETY AUDITING

(2016 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. What is safety audit?
2. What is external audit?
3. List out two key occupational health programs.
4. What is closing meeting in audit?
5. What is gap analysis?
6. What is follow – up in safety audit?
7. Define corrective action.
8. What auditor verification?

9. What is Noise?
10. What is PPE?

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) Explain in detail about benefits of audit process.
Or
(b) Explain in details about audit plan.
12. (a) Explain the scope of occupational health compliance audit.
Or
(b) Explain about audit team communication.
13. (a) Write about qualification to audit management system.
Or
(b) Discuss about On-Site audit activities.
14. (a) Explain about post audit activities.
Or
(b) Explain in details about audit recommendation and corrective action.
15. (a) Write about the response to hazardous chemical emergencies.
Or
(b) Explain in detail about emergency use and supplied air respirators.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Explain in detail about Audit reporting, findings, recommendation and corrective actions.

Or

- (b) Explain about safety audit and its types.

17. (a) Explain in detail about executive summary, statement of findings.

Or

- (b) Explain in detail about pre audit and post audit activities.

18. (a) Explain in detail about facility preparation (Record keeping systems).

Or

- (b) Create the checklist shop floor.
-

C-4408

Sub. Code

90334

DIPLOMA EXAMINATION

FIRE AND INDUSTRIAL SAFETY ENGINEERING

APRIL 2021 EXAMINATION

&

APRIL 2020 ARREAR EXAMINATION

Third Year

SAFETY AT OIL, GAS AND NUCLEAR PROJECTS

(2016 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Define accident.
2. What is first aid?
3. What is LOTO?
4. What is confined space?
5. What is Excavation?
6. What is hot work area?
7. Define manual material handling.
8. What is conveyor?
9. What is fire?
10. What is housekeeping?

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) Explain in rules of safety.

Or

(b) Explain in details about safety induction training.

12. (a) Explain about LOTO safety.

Or

(b) List out major hazards in confined space.

13. (a) Write short notes on excavation hazards and safety.

Or

(b) Explain in details about safety in crane operations.

14. (a) Explain about safety portable hand and power tools.

Or

(b) Explain in details about WAH.

15. (a) Write about housekeeping.

Or

(b) Explain in detail about environmental care.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Explain in detail about ERP.

Or

(b) Explain about confined space.

17. (a) Explain in detail about scaffolding safety.

Or

(b) Explain in detail about compressed gas cylinder safety.

18. (a) Explain in detail about office safety.

Or

(b) Explain about abrasive blasting and painting .

C-4417

Sub. Code

90331

DIPLOMA EXAMINATION

FIRE AND INDUSTRIAL SAFETY ENGINEERING

APRIL 2021 EXAMINATION

&

APRIL 2020 ARREAR EXAMINATION

Third Year

PRINCIPLES OF SAFETY MANAGEMENT

(Upto 2015 Batch)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(5 × 3 = 15)

Answer **all** questions.

1. What is Incident Recall Technique?
2. List out types of audit.
3. What is meant by accident?
4. Expand ANSI.
5. Define safety training.

Part B

(5 × 12 = 60)

Answer **all** questions.

6. (a) Discuss about the JSA.

Or

- (b) Discuss about :
 - (i) Safety policy
 - (ii) Safety sampling and
 - (iii) Safety survey.

7. (a) Discuss in detail about NCR.

Or

(b) Explain in detail about unsafe action and unsafe condition with example.

8. (a) Explain in detail about AIR.

Or

(b) Discuss in detail about domino sequence.

9. (a) Explain about Permanent disabilities and Temporary disabilities.

Or

(b) Explain about Frequency rate, Severity rate and Incident rate.

10. (a) Explain about safety training and methods of safety training.

Or

(b) Explain about domestic safety and training.

C-4418

Sub. Code

90332

DIPLOMA EXAMINATION
FIRE AND INDUSTRIAL SAFETY ENGINEERING
APRIL 2021 EXAMINATION
&
APRIL 2020 ARREAR EXAMINATION
Third Year
SAFETY INSPECTION AND AUDIT
(Upto 2015 Batch)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(5 × 3 = 15)

Answer **all** questions.

1. What is Safety Inspection?
2. What is NCR and its types?
3. What is IMS?
4. What are the steps in audit?
5. Define proactive and reactive.

Part B

(5 × 12 = 60)

Answer **all** questions.

6. (a) How to make the safety inspection report?

Or

- (b) Write about the purpose of safety inspection procedure inspection team and the obligations?

7. (a) Explain UA and VC with and the contributing factors.

Or

- (b) Write a short notes on audit methodology.

8. (a) Explain the specification, scope of OHS-MS.

Or

- (b) How to develop OH and S policy and give the guidelines?

9. (a) Explain the general principles of environmental audit.

Or

- (b) Give the specification and objectives, guidelines and principles of ISO 14001?

10. (a) Explain the safety training needs for workers.

Or

- (b) Give the safety responsibilities of directions and senior managers, supervisors and employers.

C-4419

Sub. Code

90333

DIPLOMA EXAMINATION

FIRE AND INDUSTRIAL SAFETY ENGINEERING

APRIL 2021 EXAMINATION

&

APRIL 2020 ARREAR EXAMINATION

Third Year

CONSTRUCTIONAL SAFETY

(Upto 2015 Batch)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(5 × 3 = 15)

Answer **all** questions.

1. What is a confined space?
2. What is a high-rise building?
3. What is fragile roof?
4. What are the types of cranes?
5. What are the types of ladder?

Part B

(5 × 12 = 60)

Answer **all** questions.

6. (a) Explain in detail about safe working in confined spaces.

Or

- (b) Explain in detail about PTW system in construction work.

7. (a) Explain about types, hazards and control measures of scaffolding.

Or

(b) Write in detail about the importance and types of training in construction work.

8. (a) What are the types of earth moving Equipments? Discuss about the safety in operating them.

Or

(b) How to work safety in cranes? Explain.

9. (a) Describe in detail about safety in working at height.

Or

(b) What are the safety features required in demolition work? Explain.

10. (a) Prepare a checklist for selection and maintenance of crane.

Or

(b) How to work safely in contaminated areas?
