C–3832	Sub. Code
	30711

M.B.A. DEGREE EXAMINATION

ENVIRONMENT AND INDUSTRIAL SAFETY

APRIL 2021 EXAMINATION

&

APRIL 2020 ARREAR EXAMINATION

First Semester

ORGANIZATIONAL BEHAVIOUR AND MANAGEMENT

(2019 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. List any three contributing disciplines to the field of Organizational Behaviour.

2. Write the scope of Organizational Behaviour.

3. Define Personality.

4. Write short note on Attitude.

5. What is Halo effect?

6. Differentiate between Groups and Teams.

7. Differentiate between leadership and management.

8. List the bases of personal power.

9. What is organization culture?

10. Brief the term job satisfaction.

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

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

11. (a) Explain the need and importance of Organizational Behaviour.

Or

(b) Explain the various Organizational Behaviour models.

12. (a) Explain the meaning of personality. What are the determinants of personality?

Or

(b) What do you understand by Motivation? Can you motivate people in your organization? If so, how?

13. (a) What are the various causes of conflict in organizations?

Or

(b) Explain various group decision making techniques.

14. (a) What is the role of Power and Politics in organizations?

Or

(b) Define Leadership. Critically evaluate the various theories of leadership with their pros and cons in the present content.

15. (a) Explain the determinants of Job satisfaction.

Or

(b) Describe the prevention methods and management of stress.

Part C (3 × 10 = 30)

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

16. (a) Describe the Challenges and opportunities for Organizational Behaviour.

Or

(b) Explain the concept of emotional intelligence.

17. (a) Elaborate the structure of organizations.

Or

(b) Analyse the importance of leadership.

18. (a) Describe the factor affecting culture and climate.

Or

(b) Describe objectives and characteristics of organizational development.

———————

C–3837	Sub. Code
	30715B/ 30615B

M.B.A. DEGREE EXAMINATION

ENVIRONMENT AND INDUSTRIAL SAFETY

APRIL 2021 EXAMINATION

&

APRIL 2020 ARREAR EXAMINATION

First Semester

SAFETY IN MINING INDUSTRY

(Common for M.B.A. (E & IS)/M.Sc. (ISH))

(2019 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. What is called open cast mines?

2. List the types of tools used in mines.

3. What do you mean by winding?

4. Write about water flooding.

5. Define electrical hazards.

6. Write few hazards in tunneling process.

7. Write the objectives of risk assessment.

8. What is the purpose of control charts?

9. Write the scope of safety audit.

10. What do you mean by reportable accident?

Part B (5 × 5 = 25)

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

11. (a) Explain the term accident reporting system in detail.

Or

(b) Discuss the fire prevention methods in mines.

12. (a) Write short notes on fall of roof and slides.

Or

(b) Discuss the safety acts related mines.

13. (a) Discuss the sources hazards in tunneling.

Or

(b) Write short notes on tools and machines used in mines.

14. (a) Discuss the elements of risk assessment.

Or

(b) Write short note on activity relationship analysis.

15. (a) Describe emergency preparedness.

Or

(b) Write your recommendation for improving safety in mines.

Part C (3 × 10 = 30)

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

16. (a) Discuss the recent developments in mines safety.

Or

(b) Explain the procedures for safe transportation in mines.

17. (a) Write short note on noise and vibration hazards.

Or

(b) Describe the FMEA with examples.

18. (a) Discuss mines act in detail.

Or

(b) Explain the importance of accident analysis in detail.

———————

C–3838

Sub. Code
30715C/ 30615C

M.B.A. DEGREE EXAMINATION

ENVIRONMENT INDUSTRIAL SAFETY

APRIL 2021 EXAMINATION

&

APRIL 2020 ARREAR EXAMINATION

First Semester

SAFETY IN FIRE WORKS INDUSTRY

(Common for M.B.A. (E & IS)/M.Sc. (ISH))

(2019 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. Write the properties of calcium nitrate.
2. Define Impact sensitivity.
3. Write the causes of static charge.
4. What is called dust?
5. Explain the drying process.
6. Write short note on Fire prevention and control.
7. What is called waste pit?
8. Define the term Magazine.
9. Define consumer anxiety.
10. List few major roles of fire service.

Part B (5 × 5 = 25)

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

11. (a) Discuss about the PPE used in fireworks.

Or

(b) Classify the types of hazards in fireworks.

12. (a) Write short notes on biological barriers.

Or

(b) Explain the working principle of static charge meter.

13. (a) List the hand tools used in fireworks.

Or

(b) Define process safety.

14. (a) Discuss the procedures for safe manual handling.

Or

(b) Write short note on design of vehicles for explosive transport.

15. (a) Write the concepts of waste control.

Or

(b) Write few safety methods used by other countries.

Part C (3 × 10 = 30)

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

16. (a) Discuss the explosive act and rules in detail.

Or

(b) Explain pollution prevention methods in fireworks industry.

17. (a) Describe the process of fire works with safety precautions.

Or

(b) Discuss the types of materials handling.

18. (a) Describe the fireworks waste and its disposal methods.

Or

(b) Explain the roles and responsibilities of fire safety officer.

———————

C–3839	Sub. Code
	30721

M.B.A. DEGREE EXAMINATION, APRIL 2021

ENVIRONMENT AND INDUSTRIAL SAFETY

APRIL 2021 EXAMINATION

&

APRIL 2020 ARREAR EXAMINATION

Second Semester

EHS ACTS, LAWS AND REGULATIONS

(2019 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. List the powers of Inspectors.

2. Define overcrowding.

3. What is meant by muster roll?

4. Difference between accident and dangerous occurance.

5. Define Act.

6. Write about EPA act?

7. State E-waste management.

8. What are bio-medical wastes with example?

9. What is meant by compensation?

10. What is noise? With example.

Part B (5 × 5 = 25)

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

11. (a) Write a short notes about fencing of machinery.

Or

(b) List out the roles and responsibility of safety officers.

12. (a) What are the welfare measures taken for building works?

Or

(b) Write a short note on dollies and wheel barrows.

13. (a) Explain in details about water pollution act.

Or

(b) Illustrate the importance of public liability insurance act.

14. (a) Explain battery management handling rules.

Or

(b) Describe bio medical waste management handling rules.

15. (a) Describe the importance of Indian boilers act.

Or

(b) Discuss in detail about importance of noise rules.

Part C (3 × 10 = 30)

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

16. (a) Explain in detail about safety building machinery.

Or

(b) Describe in detail about welfare measures of building workers.

17. (a) Illustrate in detail about notice of accident and dangerous occurances.

Or

(b) Discuss in detail about the important highlights covered under water act.

18. (a) Explain in detail about the waste management. Describe about its technique.

Or

(b) Explain in detail about dangerous machinery act with suitable case studies.

———————

C–3840	Sub. Code
	30722

M.B.A. DEGREE EXAMINATION

ENVIRONMENT AND INDUSTRIAL SAFETY

APRIL 2021 EXAMINATION

&

APRIL 2020 ARREAR EXAMINATION

Second Semester

INTERNATIONAL MANAGEMENT OF HEALTH AND SAFETY

(2019 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. What is meant by safety policy?

2. Define safety.

3. What are the responsibility of employer?

4. List some safety rules for contractors.

5. Define safety culture.

6. Differentiate between internal and external influences.

7. What is meant proactive monitoring?

8. How to measure the performance of safety?

9. Explain ILO.

10. What are the basic elements of all the basic elements of all health and safety management system?

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

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

11. (a) Write short note on key elements of health and safety policy.

Or

(b) Discuss in detail about application of safety in industrial sector.

12. (a) Write short note on about responsibility of health and safety in an organization.

Or

(b) Describe in detail about the function of health and safety practitioners.

13. (a) Write short notes on safety performance.

Or

(b) How to promote the health and safety standards at the workplace?

14. (a) What are the control measures to be taken for health and safety at work?

Or

(b) Distinguish between proactive monitoring and reactive monitoring.

15. (a) Write role on regulatory authorties.

Or

(b) What are the problems associated with OHSM system?

Part C (3 × 10 = 30)

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

16. (a) Explain in detail about the key elements of occupational health and safety management.

Or

(b) Write short note on :

(i) Safety committee

(ii) Safety representatives.

17. (a) Explain in detail about the development of a positive health and safety culture.

Or

(b) Write short note on :

(i) Health and safety training

(ii) Legal aspect of risk assessment.

18. (a) Explain in detail about the traditional approach to measuring health and safety performance.

Or

(b) Write short note on benefits of health and safety management system.

———————

C–3841	Sub. Code
	30723

M.B.A. DEGREE EXAMINATION

ENVIRONMENT 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 material handling and its types?
2. Define ergonomics.
3. What are the reason for crane accident?
4. What is overloading in crane?
5. What is mounted drum hoist?
6. List the types of conveyors.
7. Difference between rigging and rigger.
8. What is sling and its types?
9. What is man lift?
10. What are principles of gasoline truck?

Part B (5 × 5 = 25)

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

11. (a) What are the accessories used for manual material handling?

Or

(b) What are the problems with hazardous materials?

12. (a) Explain about reasons for of crane.

Or

(b) Write a safety precaution for crane operation.

13. (a) Explain in detail about guidelines for using motorized powered conveyors.

Or

(b) What are the inspection procedure for load testing controls in hoist?

14. (a) What are the safe use and maintenance of chain sling and wire rope slings?

Or

(b) Explain about metal mesh sling in detail.

15. (a) Explain about powered industrial trucks.

Or

(b) Write about the ergonomic and safety considerations.

Part C (3 × 10 = 30)

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

16. (a) How to prevent common injury in manual handling?

Or

(b) Elaborate in detail about preventive and inspection maintenance of crane.

17. (a) Explain load testing control for :

(i) Motorized conveyor

(ii) Powered conveyors.

Or

(b) Explain about inspection, maintenance for chain sling and rope slings.

18. (a) What are the operating principle of processed industrial trucks?

Or

(b) Discuss in details about machine room emergency procedure.

———————

C–3842	Sub. Code 30724

M.B.A. DEGREE EXAMINATION

ENVIRONMENT 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 renewable and non-renewable resources.
2. What are the effect of deforestation?
3. What are the effects of over-utilization of ground water?
4. Why mining resources should be conserved?
5. What are the environmental effects of modern agriculture?
6. Explain salinity intrusion.
7. Define sustainability.
8. Define Ecosystem.
9. What is food chain?
10. Define bio-diversity.

Part B (5 × 5 = 25)

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

11. (a) Briefly explain Bio-Geographical classification of India.

Or

(b) Briefly explain in-situ conservation of biodiversity.

12. (a) Write short note on marine pollution.

Or

(b) Write short note on noise pollution.

13. (a) How will you study ecosystem of a simple pond?

Or

(b) How will you study ecosystem of a hill slope?

14. (a) Write brief note on effects of overgrazing.

Or

(b) Write brief note on effects on water logging.

15. (a) Explain briefly the concept of Food Webs.

Or

(b) List endemic species of India.

Part C (3 × 10 = 30)

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

16. (a) Elaborate role of individual in conservation of natural resources.

Or

(b) Write an essay on Conservation of Biodiversity.

17. (a) Write an essay on "Public Awareness creation on Conservation of Natural Resources".

Or

(b) Write an essay on Environmental Effects of Dam Construction.

18. (a) Write an essay on India as a Mega-Diversity Nation.

Or

(b) Write an essay Sustainable Lifestyle.

———————

C–3845	Sub. Code 30725C

M.B.A. DEGREE EXAMINATION

ENVIRONMENT AND INDUSTRIAL SAFETY

APRIL 2021 EXAMINATION

&

APRIL 2020 ARREAR EXAMINATION

Second 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. Define Hazard.
2. Define Risk.
3. List types of hazards.
4. Explain ALARP.
5. List PHA methods.
6. How What-If analysis is useful?
7. Why and where Layer of Protection Analysis is required?
8. Explain Safety instrument Loop.
9. Give two examples of risk control measures.
10. How Risk Priority Number is calculated?

Part B (5 × 5 = 25)

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

11. (a) Explain types of Combustible Gas Detection devices.

Or

(b) Name SIL determination techniques.

12. (a) How electrical equipment are specified based on hazardous area classification?

Or

(b) What are the active and passive protection devices used to control dust explosion?

13. (a) Explain FEMCA.

Or

(b) Write note on Safety Instrument Systems.

14. (a) Explain types of Risk Control measures.

Or

(b) Write brief note on computer based Hazop softwares.

15. (a) Briefly explain Human Reliability Analysis.

Or

(b) How FMEA is different from FTA?

Part C (3 × 10 = 30)

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

16. (a) Write an essay on Hazard Identification methods and Risk Analysis.

Or

(b) Explain steps involved in Layer of Protection Analysis.

17. (a) Discuss various Ingress Protection levels of electrical equipment.

Or

(b) Differentiate Weather proof / Flame proof / Intrinsically Safe / Explosion proof electrical equipment.

18. (a) Explain SIL various determination techniques.

Or

(b) Write an essay on how Hazard Identification, Risk Assessment and Risk Control are important in process plants.

———————

C–3851	Sub. Code
	30741

M.B.A. DEGREE EXAMINATION

ENVIRONMENT 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. What is the purpose of safety inspection?

2. When safety inspection in needed?

3. What are the types of safety audit?

4. State two objectives of safety audit.

5. Define environmental objective.

6. What are the levels of documentation for ISO-14001?

7. What is life cycle analysis?

8. What is the purpose of management Review in ISO-14001?

9. What are the benefits of ISO-45001 certification?

10. Why ISO-45001 is better than OHSAS 18001?

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

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

11. (a) List hazards in workplace.

Or

(b) What are Pre-Audit activities (Safety Audit)?

12. (a) What are on-site activities (Safety Audit)?

Or

(b) What are post-audit activities of Safety Audit?

13. (a) Write general principles of environmental audit.

Or

(b) What are the stages in life cycle analysis?

14. (a) Explain Type-I and Type-II labels as per ISO-14020 (Eco Labeling).

Or

(b) Explain the need and advantages of closing Meeting during OS&H Audit.

15. (a) List at least five records to be examined during safety audit.

Or

(b) Give at least five examples of safety objectives.

Part C (3 × 10 = 30)

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

16. (a) Develop a model OH&S policy.

Or

(b) Write a note on High Level Structure (HLS).

17. (a) List at least ten elements of OS&H system as per IS 14489:1998.

Or

(b) Write an essay on EIA methodology.

18. (a) Develop an implementation plan for ISO-14001 based Environment Management System.

Or

(b) Develop a structure for Safety Audit Report.

———————

C–3852	Sub. Code
	30742

M.B.A. DEGREE EXAMINATION

ENVIRONMENT AND INDUSTRIAL SAFETY

APRIL 2021 EXAMINATION

&

APRIL 2020 ARREAR EXAMINATION

Fourth Semester

HAZARDOUS WASTE MANAGEMENT

(2019 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. Define hazardous waste.

2. Write three hazardous characteristics of wastes.

3. What you understand by “secured landfill”?

4. What is the purpose for piezo metric wells?

5. What is the purpose of term card?

6. How nuclear wastes are disposed?

7. What is soil-vapor extraction?

8. Which wastes are composted?

9. What is leachate?

10. When autoclaves are used?

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

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

11. (a) Differentiate surface storage and land disposal.

Or

(b) Explain the need for stabilization of hazardous wastes.

12. (a) How bio-medical wastes are disposed?

Or

(b) Write a brief note on nuclear waste generation.

13. (a) List physio-chemical processes used in hazardous waste treatment.

Or

(b) Explain how contaminated groundwater can be remediated.

14. (a) List statutory returns to be submitted under Hazardous Wastes (M&H) Rules.

Or

(b) Differentiate combustion and incineration.

15. (a) Write brief note on anaerobic decomposition of solid wastes.

Or

(b) How landfills are covered?

Part C (3 × 10 = 30)

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

16. (a) Write an essay on E-Wastes and their disposal.

Or

(b) Write a notes on Flyash disposal.

17. (a) Explain in detail how manifest system works.

Or

(b) Explain slurry phase bio-reactor and its operation.

18. (a) How hazardous wastes are categorized as per HW (M&H) Rules?

Or

(b) Write an essay on environmental aspects, risks and their assessment.

———————

C–3853	Sub. Code
	30743

M.B.A. DEGREE EXAMINATION

ENVIRONMENT AND INDUSTRIAL SAFETY

APRIL 2021 EXAMINATION

&

APRIL 2020 ARREAR EXAMINATION

Fourth Semester

SAFETY MANAGEMENT IN HIGH HAZARDOUS AREAS

(2019 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. Define Corona discharge.

2. Why static electricity is hazardous?

3. How hazardous areas are classified?

4. What is type “p” installation?

5. Differentiate pressurization and purging.

6. What is hermetic sealing?

7. Give examples of passive barriers.

8. Explain the tern potting.

9. What you mean by Fire Rating?

10. How emission degree of sources determined?

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

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

11. (a) Write brief note on non-sparking enclosures.

Or

(b) Explain zone 0, 1 and 2 classification.

12. (a) Write note on International Electro-technical Committee (IEC) haz.area classification.

Or

(b) Write note on procedure for classification of hazardous areas.

13. (a) List design regulations for explosion proof equipment.

Or

(b) Why Sulphur Hexafluoride (SF6) gas insulation is used in Electrical Circuit Breakers.

14. (a) What are the safety hazards of electrical faults?

Or

(b) Write note on Ingress Protection (IP) classification.

15. (a) Write note on types of PPE to be worn while working on electrical panels.

Or

(b) Write a note on NFPA 70E provisions.

Part C (3 × 10 = 30)

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

16. (a) Write an essay on Flash Protection and Shock Protection for electrical systems.

Or

(b) Write note on Incident Energy and criteria for selection of protection suits.

17. (a) Write note on Types of intrinsically safe barriers.

Or

(b) Write an essay on online monitoring export systems.

18. (a) Write note on Dust Ignition proof enclosures.

Or

(b) Write an essay on importance of hazardous area classification in petroleum industry.

———————

C–3854	Sub. Code
	30744

M.B.A. DEGREE EXAMINATION

ENVIRONMENT AND INDUSTRIAL SAFETY

APRIL 2021 EXAMINATION

&

APRIL 2020 ARREAR EXAMINATION

Fourth Semester

SAFETY IN INDUSTRIAL PLANT LAYOUT DESIGN

(2019 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. Name any two computerized layout and analytical methods.

2. What is a product layout?

3. Which type of layout is preferred for low volume production of non-standard products?

4. Which type of layout is preferred in ship building industry? Any why

5. Write the principles of ventilation.

6. What is additive manufacturing?

7. What are the safety considerations for nuclear plants?

8. What are territorial parameters?

9. Name any three non-destructive testing methods.

10. Define rigging.

Part B (5 × 5 = 25)

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

11. (a) What are the factors for selection of plant layout?

Or

(b) Explain the significance of material flow in layout design with an example.

12. (a) What are the advantages of a good plant layout?

Or

(b) What are the principles of plant layout?

13. (a) Explain when process layout is preferred.

Or

(b) Write brief note on importance of standards and codes of practice for plant and layout.

14. (a) Write brief note on 5S concept.

Or

(b) Write brief note on ranking and weight method for plant location.

15. (a) Write brief note on glare and its effect.

Or

(b) Write a note on different methods of slings attachment.

Part C (3 × 10 = 30)

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

16. (a) Explain the major considerations for location of automobile industry in Chennai.

Or

(b) Discuss various parameter to be considered in site selection.

17. (a) Describe the classification of material handling equipment and explain the characteristics overhead crane and roller conveyors with example.

Or

(b) Write an essay on facility design procedure and planning strategies.

18. (a) Write an essay on role of preventive maintenance in safety and health.

Or

(b) Write an essay on Ergonomic consideration in manual and material handling.

———————

C–3855	Sub. Code
	30745

M.B.A. DEGREE EXAMINATION

ENVIRONMENT AND INDUSTRIAL SAFETY

APRIL 2021 EXAMINATION

&

APRIL 2020 ARREAR EXAMINATION

Fourth Semester

INDUSTRIAL HYGIENE AND TOXICOLOGY

(2019 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. What do you mean by industrial hygiene?

2. Explain digestive system.

3. What is non-ionizing radiation?

4. Explain local exhaust ventilation.

5. Classify toxic materials in air.

6. Explain carpel tunnel syndrome.

7. Explain the term “white finger”.

8. What is the purpose of lung function test?

9. Why health surveillance is needed?

10. How indoor air quality affects health?

Part B (5 × 5 = 25)

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

11. (a) Explain various system operating in human body.

Or

(b) Explain how central nervous system works.

12. (a) Explain various occupational hazards affecting human body.

Or

(b) Write short note on bloodborne diseases.

13. (a) Explain stages of toxicological evaluation.

Or

(b) Discuss various route of entry of toxic substances.

14. (a) Write brief note on Musculo Skeleton Disorders.

Or

(b) Write note on factors affecting performance of physical tasks.

15. (a) Write note on hazards of Display Screen Equipment.

Or

(b) Write various methods of biological monitoring.

Part C (3 × 10 = 30)

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

16. (a) Write an essay on importance of industrial Hygiene and methods of improvement.

Or

(b) Write an essay on various workplace hazards and how they affect human body.

17. (a) Explain various routes of entry of hazardous substances and personal protection equipment needed to protect human body.

Or

(b) Write note on minimum ergonomic requirements for workstations.

18. (a) Write an essay on health surveillance tests to be performed periodically.

Or

(b) Write note on Biological Exposure Indices (BEI) and its significance.

———————

C–3856	Sub. Code
	30746

M.B.A. DEGREE EXAMINATION

ENVIRONMENT AND INDUSTRIAL SAFETY

APRIL 2021 EXAMINATION

&

APRIL 2020 ARREAR EXAMINATION

Fourth Semester

SAFETY IN AVIATION AND SHIPYARD

(2019 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. Define Dock.

2. Who are Stevedores?

3. What is the role of cleaning and Forwarding Agents?

4. Write the types of Cargo Ships.

5. What is a Derrick?

6. List emergency situations in a Dock.

7. What are the forums for promoting health and safety in ports?

8. What are the various methods of Derricks?

9. List lifesaving equipment used in shipyard.

10. Write the hazards in Hold.

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

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

11. (a) What are the Health and Safety obligations of Port authorities?

Or

(b) Write a brief note on MSIC Rules and its applicability to Docks.

12. (a) Write brief note on Ship Master's responsibilities on Health and Safety.

Or

(b) Write brief note on Dock Workers' responsibilities of Health and Safety.

13. (a) What safety precautions must be taken while using an internal combustion engine in a ship?

Or

(b) Write any ten hazards commonly found in Docks.

14. (a) Write brief note on minimum illumination requirements in Docks.

Or

(b) Write brief note on sources of noise pollution in Docks.

15. (a) What safety precautions to be taken while working inside Holds?

Or

(b) Write short note on Forklift Operation Safety.

Part C (3 × 10 = 30)

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

16. (a) Develop a compliance checklist for Dock Workers (Health and Safety) Act 1986 and Rules.

Or

(b) Write an essay of Safe Handing of Dangerous Cargo in Ships.

17. (a) Elaborate safety arrangements to be made in a Container Terminal.

Or

(b) Write note on safety in Bulk Material Handling in Cargo Ships.

18. (a) Write an essay on how Safety Committees can contribute to health and safety in shipyards.

Or

(b) Elaborate Health and Safety training requirements for Dock Workers.

———————

C–3857	Sub. Code
	30711

M.B.A. DEGREE EXAMINATION

ENVIRONMENT AND INDUSTRIAL SAFETY

APRIL 2021 EXAMINATION

&

APRIL 2020 ARREAR EXAMINATION

First Semester

RELIABILITY ENGINEERING

(2016 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. Define reliability function.

2. What is the impact of reliability and maintainability over availability?

3. Define exponential distribution.

4. What is censored data in probability plotting technique?

5. List the limitations of fault tree analysis.

6. Define failure rate.

7. What are the two objectives in reliability improvement?

8. Draw the bath-tub curve.

9. List the steps to be followed for life cycle costing.

10. State the main objectives of management policies and decisions.

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

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

11. (a) Distinguish between MTBF and MTTR.

Or

(b) Write short notes on maintainability.

12. (a) Explain the importance of Gamma distribution in reliability analysis.

Or

(b) What is probability plotting? Outline the probability plotting procedure.

13. (a) What is RBD approach?

Or

(b) Write the limitation of Markova analysis.

14. (a) Discuss the reliability management by objectives.

Or

(b) List and outline quality management approaches.

15. (a) Explain any one risk assessment technique with example.

Or

(b) Write short notes on industrial safety.

Part C (3 × 10 = 30)

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

16. (a) Explain the importance of reliability in everyday life.

Or

(b) Write short notes on useful life and availability.

17. (a) Explain any two distribution method with example.

Or

(b) Explain FMEA.

18. (a) Explain non parametric methods.

Or

(b) Discuss about importance of risk measurement.

———————

C–3864	Sub. Code
	30721

M.B.A. DEGREE EXAMINATION

ENVIRONMENT AND INDUSTRIAL SAFETY

APRIL 2021 EXAMINATION

&

APRIL 2020 ARREAR EXAMINATION

Second Semester

HUMAN RESOURCE DEVELOPMENT AND MANAGEMENT

(2016 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. What are the qualities of HRM functions?
2. What are the objectives of HRM?
3. What is meant by changes agents in organization development?
4. List the steps involved in selection process.
5. Define fringe benefits.
6. Define two factor theory of motivation.
7. Why workers participation is required in management?
8. List the impact employee turnover and absenteeism in workplace safety.
9. What are the benefits if grievance management?
10. List out impacts on HRM due to globalization.

Part B (5 × 5 = 25)

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

11. (a) Write short notes on :

(i) Objectives of HRM

(ii) HR Audit.

Or

(b) Explain emerging challenges in HR Management.

12. (a) Discuss Human resource development system.

Or

(b) Explain career planning and development.

13. (a) Narrate various limitations of performance appraisal system.

Or

(b) Write short notes on :

(i) HRIS

(ii) Incentive and benefits.

14. (a) Explain various stress management technique at workplace.

Or

(b) Discuss the process of workers participation management.

15. (a) Explain the importance of motivational environment in private sectors.

Or

(b) Write short notes on :

(i) Industrial disputes

(ii) Globalisation and its impacts in HRM.

Part C (3 × 10 = 30)

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

16. (a) Explain the HRM program implementation and evaluation with suitable example.

Or

(b) Explain the need for counseling. What are the components of counseling program? How can we ensure effectiveness of counseling?

17. (a) Explain what are the future challenges before HR managers.

Or

(b) Discuss the global trend in HRM.

18. (a) What is management's role in safety and health? Describe the various issues involved.

Or

(b) In what ways does the HRM function relate to the organization's strategy? Give contextual example.

C–3875	Sub. Code
	30735a/ 30635a

M.B.A./M.Sc. DEGREE EXAMINATION

COMMON FOR M.B.A. ENVIRONMENT AND INDUSTRIAL SAFETY/M.Sc. HEALTH SAFETY ENVIRONMENT

APRIL 2021 EXAMINATION

&

APRIL 2020 ARREAR EXAMINATION

Third Semester

SAFETY IN POWDER HANDLING

(2016 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. Define Powder Handling.

2. Write the classification of Metal Powder.

3. Define Pyrotechnics.

4. Illustrate Electro deposition.

5. Define Dust explosion.

6. What is MIE?

7. What is Static Charge?

8. Hazards in Electro Plating?

9. Mention the importance of housekeeping in Dust Control.

10. Draw the warning sign in Dust Area.

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

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

11. (a) Write down the physical and chemical properties of metal powder.

Or

(b) Differentiate metallic and non-metallic powder.

12. (a) Methods of Screening and Cleaning of Metals.

Or

(b) Define Explosivity, Pyrophoricity and Toxicity.

13. (a) Explain briefly about maximum permissible oxygen concentration.

Or

(b) Describe briefly about venting of ducts and pipes.

14. (a) Explain Dust separators and the types of dust separators.

Or

(b) Explain briefly about Hazards Powder coating.

15. (a) Explain the Dust Control Methods.

Or

(b) What are the Environmental Protections?

Part C (3 × 10 = 30)

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

16. (a) Explain in detail about different classification of Metal Powders.

Or

(b) Explain the concept of charge distribution on metal powders.

17. (a) Write short notes on :

(i) Hartmann vertical tube apparatus

(ii) Horizontal tube apparatus

Or

(b) What is Dust explosion and explain in detail about dust prevention and protection?

18. (a) Explain the hazards in electrostatic discharge and control measures.

Or

(b) How do you control the evaluation of dust by using Proper PPE?

———————

C–3878	Sub. Code
	30741/30641

M.B.A./M.Sc. DEGREE EXAMINATION

COMMON FOR M.B.A. ENVIRONMENT AND INDUSTRIAL SAFETY/ M.Sc. HEALTH SAFETY ENVIRONMENT

APRIL 2021 EXAMINATION

&

APRIL 2020 ARREAR EXAMINATION

Fourth Semester

ENVIRONMENTAL SAFETY MANAGEMENT

(2016 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. Differentiate between primary and secondary pollutants.

2. Explain CFC and mention its effect on environment.

3. State the sources of water pollution.

4. What are the various water treatment methods?

5. What is meant by hazardous wastes?

6. Differentiate between incineration and vitrification.

7. State the working principles of gravitational setting chamber.

8. Name any four laws enacted by Govt. of India to effectively protect environment.

9. What are the processes in petroleum refinery industries?

10. List the pollutants from dyeing and pigment industries.

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

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

11. (a) Describe the harmful effects of air pollution on

(i) Human beings

(ii) Materials

(iii) Animals

(iv) Plants.

Or

(b) Explain the concept of clean coal combustion technology in detail.

12. (a) Explain in detail about the various methods of water sampling.

Or

(b) Briefly explain the various water pollution sources. How they can be controlled?

13. (a) What are the objectives of Environmental Impact Assessment (EIA)? Explain the key elements of EIA in detail.

Or

(b) Write short notes on the following : Incineration process.

14. (a) With the aid of neat schematic. Explain the working of a pH meter.

Or

(b) Explain the role of atomic absorption spectrometer in Environmental measurement control.

15. (a) Explain the processes carried out to control pollution in cement industry.

Or

(b) Discuss about the various pollution control measures adopted in textile industries.

Part C (3 × 10 = 30)

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

16. (a) Explain in detail about the various air pollution sources and the methods of controlling them.

Or

(b) Mention the types of water pollution and explain each of them with their harmful effects on surroundings in detail.

17. (a) Describe in detail about the identification, characterization and classification of hazardous wastes.

Or

(b) Write about the various instruments used for sampling and testing the air pollutants.

18. (a) Give an analysis about the pollution control in paper industry.

Or

(b) Explain in detail the pollution control methods employed in petroleum industry.

———————

C–3882	Sub. Code
	30743c/ 30643c

M.B.A. DEGREE EXAMINATION

COMMON FOR M.B.A. ENVIRONMENT AND INDUSTRIAL SAFETY/ M.Sc. HEALTH SAFETY ENVIRONMENT

APRIL 2021 EXAMINATION

&

APRIL 2020 ARREAR EXAMINATION

Fourth Semester

SAFETY EQUIPMENTS AND PROCEDURES

(2016 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. Write down the IS code for PPE.

2. List out the safety equipments.

3. What is the use of multi gas monitors?

4. What is winch tripod?

5. List the types of smoke detector.

6. Mention the different types of hydrant pumps.

7. Different between respiratory and non respirator.

8. Define SCBA, SCUBA, SAR and BA.

9. Difference between active and passive fall protection.

10. How do you Rescue a worker from Height?

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

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

11. (a) Write down the selection criteria for PPE.

Or

(b) Write down the purchase guidelines for PPE.

12. (a) Describe the circuit protection devices.

Or

(b) Draw a diagram of pressure relief valve and mention its parts.

13. (a) Mention the suitability of fire extinguishers for different class fires.

Or

(b) What is the use of sprinklers and describe the various types of sprinklers?

14. (a) Describe the following :

(i) Eye protection

(ii) Ear protection

(iii) Face protection.

Or

(b) What are the chemical and mechanical filters?

15. (a) Describe half body and full body lanyard.

Or

(b) Explain the working of scaffolding hook.

Part C (3 × 10 = 30)

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

16. (a) Specify in detail about different IS codes for safety equipments.

Or

(b) Explain the working principles of ELCB and GFCI.

17. (a) Write the maintenance schedule of hydrant system.

Or

(b) Explain the various types of Air supplier type and Purifier type.

18. (a) Describe the safety harness systems and its types.

Or

(b) Describe the following : Snap hook, Scaffolding hook and carabineer hook.

———————

C–3884	Sub. Code
	30744b/ 30644b

M.B.A./M.Sc. DEGREE EXAMINATION

COMMON FOR M.B.A. ENVIRONMENT AND INDUSTRIAL SAFETY/ M.Sc. HEALTH SAFETY ENVIRONMENT

APRIL 2021 EXAMINATION

&

APRIL 2020 ARREAR EXAMINATION

Fourth Semester

SAFETY IN TEXTILE INDUSTRIES

(2016 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. Define long stable spinning.

2. What is Jute spinning?

3. What are the hazards in Due to Steam?

4. Which safety hazards is known to cause serious lung issues for mill workers?

   (a) Cotton dust

   (b) Fires

   (c) Dangerous machines

   (d) Explosions

5. What is scouring?

6. What are the effluents in textile industry?

7. Enumerate the personal protective equipments used in textile industry.

8. Which is most suitable for extinguishing techniques in textile industries.

   (a) Cooling, starvation, prevention of chain reaction

   (b) Starvation, blanking, cooling, smothering

   (c) Both (a) and (b)

   (d) None of the above

9. What are the legal acts and rules applicable to textile industry?

10. How are effluents treated and disposed in textile industry?

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

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

11. (a) Mention the difference between short stable and long stable spinning.

Or

(b) Describe the following :

   (i) Opening

   (ii) Drawing

   (iii) Carding and Warping.

12. (a) Discuss the various accident hazards is sizing processes.

Or

(b) What is knitting and write short notes on knitting machines?

13. (a) What are the hazards involved in scouring and bleaching operations?

Or

(b) What are the effluents developed in finishing operations?

14. (a) How do you control the dust exposure in textile industry based on hierarchy?

Or

(b) What are the special precautions for specific hazardous work environments?

15. (a) Write down the Indian textile policy.

Or

(b) Explain briefly about transport and disposal system in textile effluents.

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

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

16. (a) Explain briefly with neat sketch about viscose rayon manufacturing system.

Or

(b) Discuss about the accident hazards involved in the sizing processes. Also state their prevention methods.

17. (a) Illustrate and analyse, the hazards involved in scouring and bleaching operations.

Or

(b) How the employees in textile mills are protected from various occupational health hazards? What are the duties of employees and employer to prevent occupational diseases?

18. (a) Describe briefly about the special precautions required for hazardous works in a textile industry.

Or

(b) Discuss in brief, about the various legal provisions applicable to textile industry.

———————

C–3885	Sub. Code
	30744c/ 30644c

M.B.A./M.Sc. DEGREE EXAMINATION

COMMON FOR M.B.A. ENVIRONMENT AND INDUSTRIAL SAFETY/ M.Sc. HEALTH SAFETY ENVIRONMENT

APRIL 2021 EXAMINATION

&

APRIL 2020 ARREAR EXAMINATION

Fourth Semester

MAINTENANCE ENGINEERING

(2016 onwards)

Duration : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. State the objectives of maintenance management.
2. What are the types of maintenance?
3. What is MTTF?
4. What is called downtime?
5. Differentiate overhaul and repair.
6. What is group replacement?
7. What is five zero concept?
8. What is RCM?
9. Define system effectiveness.
10. Explain the features of TPM.

Part B (5 × 5 = 25)

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

11. (a) Discuss the functions of maintenance.

Or

(b) Explain tero technology.

12. (a) Describe types of maintenance.

Or

(b) Explain replacement decision.

13. (a) List the requirements of maintenance resource.

Or

(b) Discuss spare parts management.

14. (a) Write short notes on design for maintainability.

Or

(b) Describe the importance of maintenance quality.

15. (a) Discuss the implementation of TPM.

Or

(b) Describe chronic and sporadic losses.

Part C (3 × 10 = 30)

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

16. (a) Who forms maintenance strategies is an organization and how is it executed?

Or

(b) Discuss the scope of maintenance department.

17. (a) Describe any two maintenance models in detail.

Or

(b) Explain maintenance planning and scheduling in detail.

18. (a) Describe FMECA.

Or

(b) Explain overall equipment effectiveness.

———————