

**C-1336**

**Sub. Code**

**84211**

**M.B.A. DEGREE EXAMINATION, NOVEMBER 2023**

**First Semester**

**Rail Safety Management**

**ORGANIZATIONAL BEHAVIOUR AND MANAGEMENT**

**(2023 onwards)**

Duration : 3 Hours

Maximum : 75 Marks

**Section A**

(10 × 1 = 10)

Answer **all** the questions.

1. Which of the following theories gives the way by which the requirements can be transformed into performance or behaviour?
  - (a) Expectancy theory
  - (b) Herzberg's theory
  - (c) Process theory
  - (d) Maslow's theory
  
2. Which of the following best describes the nature of the study of organizational behaviour?
  - (a) An Art
  - (b) A science
  - (c) An art as well as science
  - (d) None of the above

3. “\_\_\_\_\_ are social inventions for accomplishing goals through group efforts”.
- (a) Management      (b) Organization  
(c) Leadership      (d) Behaviour
4. The organizational behaviour topic, which is not for managing and controlling the fear of terrorism among the employees.
- (a) Work design      (b) Emotion  
(c) Motivation      (d) Communication
5. Which of the following is the event of encouraging people to action to achieve their targets?
- (a) Motivation  
(b) Bonus  
(c) Promotion  
(d) Performance based incentive
6. Even individual sets his goal, and he also knows the \_\_\_\_\_ which will take him to achieve the goal.
- (a) Process      (b) Behaviour  
(c) Event      (d) Way
7. The Least used communication channel in an organization is usually
- (a) upward      (b) downward  
(c) diagonal      (d) Horizontal
8. Groups created by managerial decisions in order to accomplish the stated goals of the organization are called
- (a) Formal group      (b) Informal group  
(c) Task group      (d) Interest group



**Section C**

(5 × 8 = 40)

Answer **all** questions.

16. (a) Discuss the scope of organizational behavior in the field of management.

Or

- (b) Trace the development of organizational behaviour from a historical perspective.

17. (a) What are all the factors affecting leadership styles?

Or

- (b) What is leadership? Discuss the theories of leadership.

18. (a) Explain the steps in the controlling Process.

Or

- (b) What are the various control techniques used in the modern organisation? Give examples.

19. (a) Briefly explain personality and its types and factors influencing it with suitable examples.

Or

- (b) Explain the concept of conflict management with its Process.

20. (a) “Positive self-esteem is significant to overcome the stress” – Justify.

Or

- (b) Define Stress. Explain the ill effects of Stress on human beings. How do people manage Stress.

**C-1337**

**Sub. Code**

**84212**

**M.B.A. DEGREE EXAMINATION, NOVEMBER 2023.**

**First Semester**

**Rail Safety Management**

**HISTORY AND EVALUATION OF INDIAN RAILWAYS**

**(2023 onwards)**

Duration : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 1 = 10)

Answer **all** the questions.

1. When was the first passenger train in India introduced?  
(a) 1848                      (b) 1853  
(c) 1860                      (d) 1870
2. Who was the Governor-General of India when the first railway line was opened in India?  
(a) Lord Curzon  
(b) Lord Dalhousie  
(c) Lord Mount batten  
(d) Lord Cornwallis
3. What is the oldest working steam locomotive in India?  
(a) Fairy Queen              (b) Akbar  
(c) Sahib                      (d) Viceregal special
4. Which was the first electric train in India introduced?  
(a) Deccan Queen              (b) Rajadhani Express  
(c) Frontier Mail              (d) Howrah Express

5. What is the name of India's largest train, introduced in 2019?
- (a) Tejas                      (b) Vande Bharat  
(c) Shatabdi                  (d) Gatimaan
6. Which railway zone is the latest in terms of route kilometers in India?
- (a) Northern                  (b) Southern  
(c) Eastern                    (d) Western
7. The "Darjeeling Himalayan Railway" is known for its narrow gauge tracks and has been declared a UNESCO World Heritage Site. In which year was it established?
- (a) 1878                      (b) 1881  
(c) 1902                      (d) 1920
8. The Howrah-New Delhi Rajdhani Express derailed in 2002. In which state did this accident take place?
- (a) Uttar Pradesh          (b) Bihar  
(c) West Bengal              (d) Odisha
9. What was the cause of the train accident in 1981?
- (a) Sudden cyclonic storm  
(b) Collision  
(c) Track damage  
(d) Electronic defect
10. The "Palace on Wheels" is a luxury tourist train that explores the heritage of Rajasthan, What was its original use before being converted into a tourist train?
- (a) Royal train  
(b) Car-go Train  
(c) Presidential  
(d) Royal train for Rajasthani loyalty

**Part B**

(5 × 5 = 25)

Answer **all** the questions.

11. (a) Bihar train disaster – Explain.  
Or  
(b) Write a note on the Gyaneshwari Express train Derailment.
12. (a) Write a note on Rail Coach Factory.  
Or  
(b) What are the different types of coaches in India Railways?
13. (a) Ticketing-Explain.  
Or  
(b) Write a note on travel classes.
14. (a) Zonal Creation-Explain.  
Or  
(b) What is the significance of Passenger rails?
15. (a) Freight wagon-Explain it in brief.  
Or  
(b) Write a note on Bombay to Thane Service.

**Part C**

(5 × 8 = 40)

Answer **all** the questions.

16. (a) Analyze one of the major rail accidents in India, detailing the causes, immediate aftermath, and long-term consequences of railway safety policies and practices.  
Or  
(b) Write a note on the Pamban Dhanushkodi rail disaster.

17. (a) Explain the importance of a robust railway infrastructure for economic development and connectivity.

Or

- (b) Explain the technological advancements in each of these components and their impact on railway operations and safety.
18. (a) Provide an overview of the manufacturing sector of Indian Railways, emphasizing its significance in the transportation industry.

Or

- (b) Identify and elaborate on the challenges faced by Indian Railways, in enhancing its manufacturing capacity.
19. (a) Discuss the evolution of Indian Railways from its inception to the modern era, highlighting the key developments, challenges faced, and the impact it has had on the society and economy of India.

Or

- (b) Briefly explain the significance of the integration of technology in the modernization of Indian Railways.
20. (a) Elaborately explain the history of Indian railways.

Or

- (b) Briefly explain the development history of railways from the British period.



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Sub. Code

84213

M.B.A. DEGREE EXAMINATION, NOVEMBER 2023.

First Semester

Rail Safety Management

PROCESS SAFETY MANAGEMENT IN RAIL SECTORS

(2023 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 1 = 10)

Answer **all** the questions.

1. Process Safety incidents can cause
  - (a) Multiple injuries and/or fatalities
  - (b) Massive asset damage
  - (c) Environmental consequence
  - (d) All of the above
  
2. Control of any hazardous plants, such as oil gas plants, and they are used to protect humans, industrial is known as \_\_\_\_\_ Safety.
  - (a) Industrial
  - (b) Mechanical
  - (c) Potential
  - (d) None of these
  
3. In the safety color code, the yellow color is used for
  - (a) Warning
  - (b) Caution
  - (c) Bio Hazard
  - (d) Instruction



10. Hot work is defined as any activity that involves
- (a) Welding
  - (b) Brazing
  - (c) Cutting
  - (d) All of the above

**Part B** (5 × 5 = 25)

Answer **all** the questions.

11. (a) Explain in detail about process chemistry.

Or

- (b) Explore the materials used for construction.

12. (a) What is HAZOP, and briefly discuss about it.

Or

- (b) Why do we need refresher training and explain with the necessary information?

13. (a) Briefly discuss the purpose and elements of mechanical integrity.

Or

- (b) Explain in detail about the rail equipment safety.

14. (a) What is a rail incident, and briefly discuss the causes of rail incidents.

Or

- (b) Describe in detail the Investigation questionnaire.

15. (a) Briefly discuss the employer's responsibilities.

Or

- (b) Explore the need for emergency planning.

**Part C**

(5 × 8 = 40)

Answer **all** the questions.

16. (a) Explore the design codes and standards with necessary data.

Or

- (b) Define Hazard and briefly discuss the classification of electricals.

17. (a) Briefly discuss the methods of Process Hazard Analysis.

Or

- (b) Describe the need and significance of training and explain in detail about on Job Training.

18. (a) Explore – Prestart up Review.

Or

- (b) What is management change, and-explore the 5C's of change management.

19. (a) Briefly discuss about Investigation methodologies.

Or

- (b) Explain in detail about Trade Secrets.

20. (a) Roles and responsibilities of contractor – explain briefly.

Or

- (b) Explore the selection procedure for employers and the response of the employers.

**C-1339**

**Sub. Code**

**84214**

**M.B.A. DEGREE EXAMINATION, NOVEMBER 2023.**

**First Semester**

**Rail Safety Management**

**BASICS OF FIRE SAFETY**

**(2023 onwards)**

Duration : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 1 = 10)

Answer **all** the questions.

1. Which is one of the three elements of the fire triangle?  
(a) Nitrogen                      (b) Hydrogen  
(c) Water                              (d) Oxygen
2. Which of the following fire extinguishers is suitable for extinguishing class A fires  
(a) Red                              (b) Yellow  
(c) Black                              (d) Green
3. Name a potential fire hazard that might exist in a kitchen  
(a) Cooking oil                      (b) Carpets  
(c) Knives                              (d) Utensils
4. How do smoke detectors work?  
(a) Sensing smoke                      (b) Emitting laser  
(c) Light signal                      (d) None of the above



**Part B**

(5 × 5 = 25)

Answer **all** the questions.

11. (a) Briefly discuss about conduction, convection and radiation in heat transfer.

Or

- (b) Explain the causes of fire accidents at high rise buildings and suggest suitable control methods.

12. (a) What is refilling in a fire extinguisher, and explain the importance of it.

Or

- (b) Describe the testing methods of fire extinguishers.

13. (a) Explore the need and significance of automatic fire detectors.

Or

- (b) Briefly discuss about optical smoke detectors.

14. (a) Describe in detail about testing of internal fire hydrants.

Or

- (b) Explain the testing methods of fire hydrants.

15. (a) List the types of exists and briefly discuss about them.

Or

- (b) How to handle the combustible liquids.

**Part C**

(5 × 8 = 40)

Answer **all** the questions.

16. (a) Describe in detail about the need, significance and application of the explosion pentagon.

Or

- (b) What are all the important steps that need to be followed to ensure fire safety in public places, and describes the appropriate control methods?

17. (a) Explain in detail about fire extinguisher selection and location selection.

Or

- (b) Explore the inspection and maintenance of fire extinguishers.

18. (a) Briefly discuss the need for and importance of fire detection and alarm systems.

Or

- (b) Define detector and mention the types of detectors in fire safety and discuss any one detector with relevant information.

19. (a) Briefly discuss about the installation of hydrants.

Or

- (b) Explain the following :

- (i) Hose reels and
- (ii) Pump house.

20. (a) What is a fire escape, and briefly discuss about the need and importance of it.

Or

- (b) What are all hot work activities and briefly discuss any one activity and its safety measures.



C-1340

Sub. Code

84215

M.B.A. DEGREE EXAMINATION, NOVEMBER 2023.

First Semester

Rail Safety Management

MANAGEMENT OF STRESS TIME AND PROJECT

(2023 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 1 = 10)

Answer **all** the questions.

1. The modern age, where an individual is invariably exposed to various stressful situation is also known as  
(a) Age of Anxiety (b) Age of stress  
(c) Age of maturation (d) Both (a), (b)
2. The 'Stress' words was originally used by Selye in \_\_\_\_\_.  
(a) 1956 (b) 1940  
(c) 2000 (d) 1875
3. According to Selye, \_\_\_\_\_ It is defined as the pressure experienced by an individual in response to life demands  
(a) Stress (b) Fever  
(c) Diabetes (d) Arthritis
4. \_\_\_\_\_ referred to as unfulfilled wishes and desires that are imagined as fulfilled  
(a) Self control (b) Suppression  
(c) Depression (d) Daydreaming

5. The stress condition, which is unpredictable and can occur at any time during life, is called \_\_\_\_\_ Stressor.
- (a) Developmental      (b) Situational  
(c) Exterior            (d) Superior
6. Failing to manage your time can lead to following consequences like
- (a) Less stress            (b) Greater productivity  
(c) High efficiency      (d) Missed deadline
7. What is a common time management mistake?
- (a) Procrastination      (b) Scheduling task  
(c) Taking break        (d) Manage distractions
8. Stress management involves control and reduction of tension that occurs in stressful conditions, and it includes \_\_\_\_\_
- (a) Autogenic training  
(b) Being serious  
(c) Inadequate sleep  
(d) Stress of family
9. To spend your time productively, you need to have set some \_\_\_\_\_
- (a) Possibilities          (b) Ideas  
(c) Boundaries          (d) Goals
10. Which word means determine the order for dealing with (a series of items or tasks) according to their relative importance?
- (a) Planner              (b) Prioritize  
(c) Schedule            (d) Task

**Part B**

(5 × 5 = 25)

Answer **all** the questions.

11. (a) Define fight of Flight response and briefly discuss about it.

Or

- (b) Explain in detail about general adaptation syndrome.

12. (a) Explain autogenic training.

Or

- (b) What is conflict resolution and explain briefly about it.

13. (a) Explore the POSEC method.

Or

- (b) Shortly discuss about Task List Organization.

14. (a) Briefly discuss the project management types.

Or

- (b) What is iterative and incremental-project management?

15. (a) Explain - Plane Kaizen.

Or

- (b) Why do we need to study Kaizen and explain in detail about it?

**Part C**

(5 × 8 = 40)

Answer **all** the questions.

16. (a) Briefly discuss about the historical foundations of stress.

Or

- (b) Describe in detail the transactional stress model.

17. (a) Elaborately discuss about the cranial release technique.

Or

- (b) Explore the need and significance of stress balls and list their significant benefits.

18. (a) Briefly discuss the concept of Pareto analysis with one example.

Or

- (b) Why must we follow time management and explore its merits and demerits?

19. (a) What is earned value management and briefly discuss about it?

Or

- (b) Explain product based planning in project management.

20. (a) Describe in detail about cube Kaizen.

Or

- (b) Elaborately discuss about system Kaizen.

C-1341

Sub. Code

84216A

M.B.A. DEGREE EXAMINATION, NOVEMBER 2023

First Semester

Rail Safety Management

ELECTRICAL AND CHEMICAL SAFETY  
MANAGEMENT

(2023 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 1 = 10)

Answer **all** the questions.

1. A safety Electrical one line diagram should be used to \_\_\_\_\_ all sources of electrical energy.  
(a) Identify (b) Evaluate  
(c) Modify (d) Castigate
2. The secondary of a current transformer must never be \_\_\_\_\_ while energized.  
(a) Grounded (b) Opened  
(c) Examined (d) Shortened
3. Which is the "Can't Let Go" range of current flow?  
(a) 3-9 ma (b) 9-25 ma  
(c) 25-60 ma (d) 1-3 ma
4. One of the three generally recognized hazards of electrical work is \_\_\_\_\_.  
(a) Arc flash (b) Cuts  
(c) Falls (d) Connection

5. Gloves used for electrical protection must be electrically tested every \_\_\_\_\_ month.
- (a) 4 (b) 6  
(c) 12 (d) 24
6. As per the UN classification of Dangerous Goods, Class 3 indicates :
- (a) Corrosive (b) Infectious substance  
(c) Flammable liquid (d) Radioactive
7. As per the Diamond Symbol on the chemical label, blue represents \_\_\_\_\_ hazard.
- (a) Fire (b) Health  
(c) Environment (d) None of these
8. The color coding for the CO<sub>2</sub> gas cylinder is?
- (a) Black (b) White  
(c) B and W band (d) Brown
9. Which gas was released in the Bhopal gas tragedy?
- (a) Ethylene (b) CO  
(c) Methyl Isocyanide (d) Potassium Isocyanide
10. Cylinders that contain corrosive gases should not be stored for longer than \_\_\_\_\_ months.
- (a) 2 (b) 6  
(c) 24 (d) 12

**Part B**

(5 × 5 = 25)

Answer **all** the questions.

11. (a) Briefly discuss about the Indian Electricity rules.  
Or
- (b) Describe the following :
- (i) Resistance  
(ii) Capacitor  
(iii) Inductor.

12. (a) Define Excess Energy and briefly discuss about energy leakage.

Or

- (b) Write short notes on Lightning hazards.

13. (a) What is safe distance from lines? And briefly discuss about it.

Or

- (b) Explain in detail about the miniature circuit breaker.

14. (a) Explore the explosive hazards with necessary data.

Or

- (b) What is LC50 and LD50? Briefly discuss about it.

15. (a) How to transport hazardous chemicals from one place to another place safely?

Or

- (b) What are all the important steps that need to be followed in the safe storage of chemicals?

**Part C**

(5 × 8 = 40)

Answer **all** the questions.

16. (a) Describe in detail the effects of body parts due to electrical shock.

Or

- (b) Briefly discuss about Indian electricity rules.

17. (a) Elaborately discuss about classes of Insulation.

Or

(b) Explore lightning hazards and arrestors with relevant data.

18. (a) Explain in detail about under voltage and over voltage.

Or

(b) Write the importance of Personal Protective Equipment and list the applications of it.

19. (a) Briefly discuss the atmospheric monitoring and its importance in electrical and chemical safety aspects.

Or

(b) Explore the need and importance of labeling chemicals and briefly discuss toxicity.

20. (a) Briefly discuss about emergency information panel HAZCHEM code.

Or

(b) Explore the general guidelines for chemical safety.

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**C-1342**

**Sub. Code**

**84216B**

**M.B.A. DEGREE EXAMINATION, NOVEMBER 2023.**

**First Semester**

**Rail Safety Management**

**SAFETY IN TUNNELING**

**(2023 onwards)**

Duration : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 1 = 10)

Answer **all** the questions.

1. CO<sub>2</sub> is treated as the best extinguisher for
  - (a) Coal fire
  - (b) Electrical fire
  - (c) Chemical fire
  - (d) Wood fire
2. A building where explosives and detonators are stored is called
  - (a) Shelter
  - (b) Magazine
  - (c) Store
  - (d) Cable belt
3. Jigging or reciprocating movement is associated with
  - (a) Belt conveyor
  - (b) Shaker conveyor
  - (c) Diesel locomotive
  - (d) Cable belt conveyor
4. ZAP stands for
  - (a) Zonal accident point
  - (b) Zero Accident point
  - (c) Zero accident potential
  - (d) None of the above

5. While conducting Job Safety Analysis (JSA), it is not necessary to
- (a) Identify the hazards
  - (b) Identify the steps in the activity
  - (c) Calculate risk score
  - (d) Consider existing controls
6. An emergency plan for a fire in mine should not include the following :
- (a) Sufficient fire fighting equipment
  - (b) Payment of compensation
  - (c) First aid and medical assistance
  - (d) Ambulance for victim transport
7. Secondary blasting is the technique of
- (a) Re-blasting
  - (b) Control blasting
  - (c) Solid blasting
  - (d) None of the above
8. In Opencast Mining, the portion that is extracted from the working bench is termed as
- (a) Cut
  - (b) Bank width
  - (c) Bench face
  - (d) Bench width
9. Which of the following is not a personal safety gadget?
- (a) Mask
  - (b) Hand gloves
  - (c) Stretcher
  - (d) Safety belt
10. Seat belt is used by :
- (a) Blaster
  - (b) Drill operator
  - (c) Pump operator
  - (d) HEMM operator

**Part B**

(5 × 5 = 25)

Answer **all** questions.

11. (a) Explain in detail about accident prevention methods while working in heavy machinery.

Or

- (b) Define drilling and explore the causes and prevention methods in detail.

12. (a) Write the need and uses of warning sensors.

Or

- (b) What is the fall of the roof in underground mining – explain.

13. (a) Shortly discuss about the collapse of the tunnel face.

Or

- (b) Define vibration. And briefly discuss about pneumatic tools.

14. (a) Explore the concepts of risk.

Or

- (b) Analyze the risk assessment by using fuzzy model.

15. (a) Classify accidents and briefly discuss any one accident with a suitable example.

Or

- (b) Briefly discuss about the cost of the accident with relevant information.

**Part C**

(5 × 8 = 40)

Answer **all** questions.

16. (a) Briefly discuss about safe transportation with the necessary information.

Or

- (b) Explore the need and significance of hand tools and their importance.

17. (a) Explain – occupational hazards.

Or

- (b) Effect of gases in tunneling – briefly discuss about the prevention methods.

18. (a) Briefly discuss about personal protective equipment.

Or

- (b) What are all the necessary steps that need to be followed to avoid the ground collapse?

19. (a) Briefly discuss about Faulty tree analysis.

Or

- (b) Explain in detail about failure mode and effect analysis.

20. (a) Describe in detail about measures for improving safety in mines.

Or

- (b) What do you mean by reportable accidents? Briefly explain the necessary data.