

Model Question Paper

**APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY
VII SEMESTER B. TECH DEGREE EXAMINATION
MCN401- INDUSTRIAL SAFETY ENGINEERING**

Maximum: 100 Marks

Duration: 3 hours

PART A

Answer all questions, each question carries 3 marks

1. Differentiate Unsafe act and Unsafe conditions with suitable examples
2. Discuss the significance of a safety committee in improving the safety performance of an industry
3. Which are the different types of permit? Highlight its suitability.
4. Which are five 'S' used in housekeeping?
5. List the various safety features of ladders.
6. How safety of the workers can be ensured during a demolition operations.
7. Which are the hazards associated with manual material handling?
8. Discuss the safety issues of Gas welding operations.
9. Differentiate Hazard and Risk.
10. Why MSDS is mandatory for chemical products.

(10 X 3 = 30 Marks)

PART B

Answer one full question from each module

Module 1

11. List the various accident causation theories and explain any one in details. (14 Marks)
12. a) Discuss the significance of safety policy in reducing the accidents. (4 Marks)
b) Safety and productivity are the two sides of a coin'. Are you agreeing with this statement? Explain with your arguments. (10 Marks)

Module 2

13. a) Classify the personal protective equipment. List the suitability of at least fifteen types of PPEs. (10 Marks)

- b) How will you calculate the frequency rate? Explain with an example. (4 Marks)
14. a) How will you compare the safety performance of two industries? Explain with suitable example. (10 Marks)
b) Which are the steps to be followed in confined space entry to protect the life of a worker.

- b) How will you calculate the frequency rate? Explain with an example. (4 Marks)
14. a) How will you compare the safety performance of two industries? Explain with suitable example. (10 Marks)
- b) Which are the steps to be followed in confined space entry to protect the life a worker. (4 Marks)

Module 3

15. Discuss the safety and fire protection facilities required for a high rise building as per National building code. (14 Marks)
16. a) Identify the various hazards during the different stages of building construction. (7 Marks)
- b) Discuss the important types of ergonomic hazards associated with industries. (7 Marks)

Module 4

17. Which are the various types of machine guarding devices used industries. Discuss the suitability of each machine guarding devices. (14 Marks)
18. With suitable sketches briefly explain seven defects of wire ropes. (14 Marks)

Module 5

19. What is Hazard and Operability Analysis? How do you conduct a HAZOP analysis? (14 Marks)
20. Discuss about different types of chemical hazards. (14 Marks)