Roll No…….. **Total No. of Printed Pages: [1]**

Total No. of Questions: [09]

B.Tech. (EE) (Semester – 8th)

INDUSTRIAL SAFETY AND ENVIRONMENT

Subject Code: BMEE0F91

Paper ID: [OE1111511]

Time: 03 Hours **Maximum Marks: 60**

Instruction for candidates:

1. Section A is compulsory. It consists of 10 parts of two marks each.
2. Section B consist of 5 questions of 5 marks each. The student has to attempt any 4 questions out of it.
3. Section C consist of 3 questions of 10 marks each. The student has to attempt any 2 questions.

Section – A **(2 marks each)**

Q1. Attempt the following:

(a) Define industrial hazards.

(b) State the need of industrial safety.

(c) What is the significance of safety standards?

(d) What do you mean by range of planning for safety?

(e) Differentiate between physical and mental fatigue.

(f) What is the need of environmental control in industry?

(g) Explain the reasons for enforcement of environment standards.

(h) What do you mean by local relief?

(i) Define thermal comfort.

(j) State the applications of silencers?

Section – B **(5 marks each)**

Q2. How industrial safety is related to plant design? How does it affect the productivity?

Q3. Explain various safety measures that need to be taken in a manufacturing organization.

Q4. Explain the importance of considering environment factors in an industry.

Q5. State the need of ventilation in an industrial space. Also differentiate between natural and mechanical ventilation explaining their relative advantages and disadvantages.

Q6. (a) State the benefits of good illumination. (2.5)

(b) Explain the role of effective planning for safe industrial environment. (2.5)

Section – C **(10 marks each)**

Q7. What do you mean by industrial accident? Classify and explain various types of industrial accidents stating their causes of occurrence. Also explain various measures that can be taken to prevent the industrial accidents.

Q8. Why is it necessary to measure and evaluate noise? State the effect of noise on humans in an industry. Also explain how noise isolation helps in reducing the noise?

Q9. (a) Explain the effects of temperature, humidity and vibrations on human body & mind.

(b) Briefly explain the importance of policy formulation & implementation for industrial safety planning.