

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)

B.Tech. IV Year I Semester Regular Examinations February-2024
FIRE & SAFETY ENGINEERING

(Open Elective- III)

Max. Marks: 60

Time: 3 Hours

(Answer all Five Units 5 x 12 = 60 Marks)

UNIT-I

1 What do you understand by the term direct and indirect fire losses? CO1 L2 12M
Explain the terms using the iceberg analogy.

OR

2 What do you understand by the term premixed burning and buoyant diffusion flames? CO1 L1 12M

UNIT-II

3 a Discuss on Avogadro's Hypothesis. CO2 L2 6M
b Explain the working of gear pump with neat sketch. CO1 L2 6M

OR

4 Explain the procedure to find flash point & fire point of a fuel. CO2 L2 12M

UNIT-III

5 a Discuss the methods followed for fire protection and list the principle of passive fire protection methodology. CO3 L4 6M
b What is the need for fire testing and what is the testing for resistance to fire? CO3 L2 6M

OR

6 Name important toxic products of building materials and content in a fire accidents with their effects on human. CO3 L4 12M

UNIT-IV

7 a Illustrate the purpose of fire alarm system in a building. CO4 L4 6M
b Estimate the factors to be considered for the selection of fire detectors. CO4 L4 6M

OR

8 Demonstrate the working of optical flame detectors and gas sensing detectors. CO4 L2 12M

UNIT-V

9 What are the different ways in which water as an extinguisher medium is delivered from extinguishers? CO5 L4 12M

OR

10 What are the differences in purpose of automatic sprinklers and medium-velocity water spray system. CO5 L4 12M

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