

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

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

Open Elective (OE) – III

Time: 3 Hours

Max. Marks: 60

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

UNIT-I

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

OR

- 2 Classify types of fuels and explain in detail about stages of fire. CO1 L2 12M

UNIT-II

- 3 a Write an equation for head loss due to friction. CO2 L3 6M
b How the heat transformation occurs? Explain their modes. CO2 L2 6M

OR

- 4 Describe in detail about chemical chain reaction in fire. CO2 L1 12M

UNIT-III

- 5 What are the considerations in designing escape route? and refuge in different scenarios during fire in a building. CO4 L2 12M

OR

- 6 Identify the materials used for constructions and their purposes. CO3 L2 12M

UNIT-IV

- 7 a What is fire alarms and detectors system? CO5 L1 6M
b Estimate the factors to be considered for the selection of fire detectors. CO5 L4 6M

OR

- 8 How smoke detectors are used for identification of fire in a system? CO5 L2 12M

UNIT-V

- 9 Describe the different types of fire extinguishes used and their specific purpose. CO5 L2 12M

OR

- 10 What are the differences in purpose of automatic sprinklers and medium-velocity water spray system. CO5 L1 12M

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