

Name:	 UPES UNIVERSITY WITH A PURPOSE
Enrolment No:	

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, December 2020

Course: Fire Engineering III (Material & Fire Control)	Semester: V
Program: B Tech- Fire & Safety Engineering	Time 03 hrs.
Course Code: HSFS 3022	Max. Marks: 100

Instructions:

SECTION A

S. No.		30 Marks	Mapped CO
Q 1	Postulate about the properties to be considered for evaluation of fire performance of any structural element.	5	CO1
Q 2	Brief about glass and its various usage in a building or compartment.	5	CO1
Q 3	List and brief all the parameters to be standardized for determination of fire resistance through experimentation.	5	CO2
Q 4	Brief the procedure to test the integrity of various structural elements in determining fire resistance.	5	CO2
Q 5	Brief about fire zonation in a city and its necessity.	5	CO3
Q 6	Brief the stages of compartmental fire growth.	5	CO3

SECTION B

Q 7	Discuss the fire resistance test procedure as per IS3809:1979	10	CO2
Q 8	Discuss about fire stop areas in roofs and partitioned areas.	10	CO3

Q 9	Discuss about different types of fabricated fireproof boards along with their applications and limitations.	10	CO4
Q 10	Discuss various techniques to be applied for protection of wooden structures	10	CO4
Q 11	Describe various methods to determine structural damage due to fire for concrete and steel members.	10	CO5
SECTION-C			
Q 12	Discuss various methods of protecting (passive) steel, plastic and RCC structures.	20	CO3