AR 19

Reg. No

		<b>GIET UNIVERSITY, GUNUPUR – 765022</b>								
		B. Tech (Seventh Semester – Regular) Examinations, November – 2022								
ANT THE OFFICE		<b>BPEME 7021 – Fire and Safety Engineering</b>								
(Mechanical Engineering)										
Tir	Time: 3 hrs Maxim									
Answer ALL Questions										
The figures in the right hand margin indicate marks.PART – A: (Multiple Choice Questions)(1 x 10 =10 Marks)										
(1x)										
<u>Q.</u> ]	1. Answer	ALL questions			[CO#]	[PO#]				
a.	Titanium categories		an be classifie	ed under which of the following	CO1	PO1				
	(i)	Category A	(ii)	Category D						
	(iii)	Category C	(iv)	Category B						
b.	While yo nozzle?	u are using a fire extinguisher	containing to c	arbon dioxide; what happens to the	CO1	PO1				
	(i)	Extremely Hot	(ii)	Extremely Cold						
	(iii)	Warm	(iv)	Cold						
c.	i	s used to regulate the oxygen	content in breatl	ning apparatus.	CO2	PO1				
	(i)	Face piece	(ii)	Regulator assembly						
	(iii)	Cylinder assembly	(iv)	Back piece assembly						
d.		is used to hold the nose	in SCBA?		CO2	PO1				
	(i)	Head harness	(ii)	Nose cone						
	(iii)	Voice emitter	(iv)	None of these						
e.	Which of	hich of the following is the most commonly used rescue rope? CO3 PC				PO1				
	(i)	Dynamic braid-on-braid	(ii)	Static braid-on-braid						
	(iii)	Dynamic kernmantle	(iv)	Static kernmantle						
f.	is a	n example of a Hazard			CO3	PO1				
	(i)	Failing from ladder	(ii)	Fire						
	(iii)	Stair case	(iv)	All of these						
g.	g indicate there is 100% safety at work place. CO4					PO1				
	(i)	Minor accident	(ii)	Zero accident						
	(iii)	Major accident	(iv)	None of these						
h.	The main	aim of is to place	sufficient dema	nds and challenges	CO4	PO1				
	(i)	Safety Goals	(ii)	Safety objective						
	(iii)	Safety Assessment	(iv)	None of these						
i.	is	an example of natural fibre for	r rope?		CO3	PO1				
	(i)	Manila	(ii)	Sisal						
	(iii)	Cotton	(iv)	All of these						
j.	j. A balances short and long-term measures					PO1				
	(i)	Score card	(ii)	Balance score card						
	(iii)	Safety card	(iv)	All of these						

PART – B: (Short Answer Questions)			(2 x 10=20 Marks)		
Q.2.	Answer ALL questions		[CO#]	[PO#]	
a.	List out the types of Fire Extinguisher.		CO1	PO1	
b.	Classify various types of Foam.		CO1	PO1	
c.	Define the meaning of Heel and toe of fire.		CO1	PO1	
d.	Explain various types of Self-Contained Breathing Apparatus?		CO2	PO1	
e.	Give an example of Oxygen-Deficient Environments.		CO2	PO1	
f.	What is the first step in emergency planning?		CO3	PO1	
g.	Classify various types of Ropes.		CO3	PO1	
h.	Explain types of coupling used for hose fitting.		CO2	PO1	
i.	How are hazards controlled in a confined space?		CO4	PO1	
j.	What is the goal of a risk assessment?		CO4	PO1	
PART – C: (Long Answer Questions)			(10 x 4 = 40 Marks)		
Ansv	wer ALL questions	Marks	[CO#]	[PO#]	
3. a	. Explain function of the fire extinguisher and state its operation.	5	CO1	PO1	
b	Describe what factors will affect a flammable liquid fire.	5	CO1	PO1	
	(OR)				
b	. Locate three types of fires that occurred in your workplace. Analyze each fir and identify the following:	e 10	CO1	PO1	
	• The fuels involved				
	• The ignition source				
	• Methods of heat transfer				
	• Methods of fire extinguishment.				
4. a	Identify basic inspection, care, and maintenance methods for fire hose. (OR)	10	CO2	PO1	
b	. Classify various types of gear used in firefighting.	5	CO2	PO1	
C	. Describe basic hose rolls.	5	CO2	PO1	
5. a	. Explain the benefits of a code enforcement system.	10	CO3	PO1	
	(OR)				
b	. Write one case study on incendiary apartment house fire. Explain with th events details.	e 10	CO3	PO1	
6. a	Develop a safe work system for a construction Industry?	5	CO4	PO3	
b	. Write short notes on Safety values and Principles.	5	CO4	PO1	
	(OR)				
C	Write any of the six unsafe conditions of Industrial accidents?	10	CO4	PO1	

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