

**B.M.S. College of Engineering, Bengaluru-560019**

Autonomous Institute Affiliated to VTU

**June 2024 Semester End Make-Up Examinations****Programme: B.E.****Branch: Institutional Elective****Course Code: 21CV8OEOSH****Course: Occupational Safety And Health Administration****Semester: VIII****Duration: 3 hrs.****Max Marks: 100**

**Instructions:** 1. Answer any FIVE full questions, choosing one full question from each unit.  
2. Missing data, if any, may be suitably assumed.

<b>Important Note:</b> Completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages. Revealing of identification, appeal to evaluator will be treated as malpractice.			<b>UNIT – I</b>	<b>CO</b>	<b>PO</b>	<b>Marks</b>
	1	a)	Describe the basic purpose of OSHA.	CO 1	PO1	4
		b)	Discuss about the 3E's of safety	CO 1	PO1	6
		c)	Enumerate the objectives of the factory act, 1948, with its specific provisions for the safety of the workers.	CO1	PO1	10
			<b>UNIT – II</b>			
	2	a)	What is accident cost? Classify it. In a construction industry, the following data is obtained Number of employees-20 Recorded incidents (from OSHA 300 log)- 2 No of hours worked by each employee yearly (from pay roll data)-2000 hours Analyze the Accident rate.	CO 2	PO1	10
		b)	Obtain the solution for preventing Unsafe act and unsafe conditions existing in any occupation. List the unsafe act and unsafe condition.	CO 2	PO2	10
			<b>UNIT III</b>			
	3	a)	Explain the general Do's and Don'ts during fire accident	CO2	PO2	10
		b)	Illustrate the phases of fire with a graphical representation bringing out the salient features.	CO2	PO1	10
			<b>UNIT - IV</b>			
	4	a)	Illustrate the FMEA and HAZOP technique of hazard Identification with its advantages and disadvantages	CO 3	PO1	10
		b)	Summarize worksite analysis program for ergonomics.	CO 3	PO1	10
			<b>OR</b>			

5	a)	Employee Ranganna has the following symptoms -Signs of little sleep - Restlessness, inability to concentrate - Sudden weight gain - feeling of low self-worth - chronic physical problems(Headache, digestive disorder) You are the safety and health professional who recognize these symptoms in the employee. What appropriate actions will you take to process this case.	CO 3	PO2	10
	b)	Discuss about Heinrich domino theory of accident causation	CO 3	PO1	10
		<b>UNIT V</b>			
6	a)	Ram is employee working as a mechanic in a factory. He has Carpal tunnel syndrome. Identify if it is a MSD. If yes, describe some general precautions to prevent the MSD.	CO 3	PO2	10
	b)	Enumerate industrial toxicology and list five diseases caused by physical agents	CO 3	PO1	10
		<b>OR</b>			
7	a)	Discuss occupational safety in a construction industry.	CO 3	PO1	10
	b)	Discuss on musculoskeletal disorders at the workplace	CO 3	PO1	10

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