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## SARDAR PATEL UNIVERSITY No. of Printed Pages: 0 1 M.Sc. (EST) (Third Semester) Examination Monday, 6 November, 2017 Time: 2.00 pm to 5.00 pm

PS03CEST03: Industrial Safety & Control Technology

1		N i	Iax. Marks: 70
Q.1.	Mu	Itiple Choice Questions (Choose Correct Answer)	[08]
(1)		) is a strongly alkaline solution used for washing and cleaning.	
	(a)	KOH (b) NaOH (c) AlOH (d) CaOH	
(2)	As	per OSHA, explosives are indicated by color.	
		Orange (b) Red (c) Yellow (d) None	
(3)	The	purpose of is to identify the potential hazards.	
		FMEA (b) CHA (c) HAZOP (d) "What if analysis"	
(4)		ding & unloading of materials are regulated as per act.	
	, ,	HMR (b) HRM (c) HRA (d) None	
(5)		ler hazardous materials warning labels, white colour indicates	
		Explosive (b) Poison (c) Corrosive (d) Oxidizer	
(6)		ler chemical hazard labels, special hazards are indicated by following color.	
	• /	Red (b) Blue (c) White (d) Green	
(7)		ustrial establishments are made under	
(0)		EHS (b) OSHA (c) OHSA (d) None	
(8)		upling is type of on load.	
	(a)	Grip (b) Tip (c) Pit (d) None	
Q.2. (1) (2) (3) (4) (5) (6) (7) (8) (9)	Cla De De Di Di Di En	rite a Short Note on followings (Any Seven). ssify HAZOP guidewords fine TLV fine: Flammable, Explosive fine: Toxic/Poison, Corrosive fferentiate: Accident & Tragedy fferentiate: Hazard & Disaster fferentiate: Security & Safety list objectives of ventilation etion 45 of material handling	[14]
Q.3.	(a) (b)	Describe physical and health hazards in detail with suitable examples.  When the load may be hazardous? Discuss.  OR	[06] [06]
	(b)	Write a detailed note on SDS (Safety Devices System).	[06]
0.4.		Describe chemical hazards in detail with suitable examples.	[06]
<b>~</b>	(b)	Write a detailed note on MSDS (Material Safety Data Sheet).	[06]
	(10)	OR	[, ,]
			[06]
Q.5.	(a)	Justify: Housekeeping = Cleanliness + Orderliness = Safety.	[06]
Z	(b)	Define and classify Explosion.	[06]
	(~)	OR	1. 1
	(b)	What are the special provisions on Hazardous Processes under Factories Act, 1948? Exp	olain. [06]
Q.6.	(a)	Sketch Heinrich's Dominos with nomenclature.	[06]
	(b)	Define Safety Audit. Add a note on its salient features.	[06]
	(~)	OR	£
	(b)	Expand terms: ALARP, ACGIH, IDLH, EAC, OHSAS, NFPA	[06]