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SARDAR PATEL UNIVERSITY

M. Sc. (Industrial Chemistry), Fourth (4th) Semester Examination April - 2016

PS04CICH08—Selected Topics In Industrial Chemistry Saturday, 9th April, 2016

Time: 0	2:30 p.m. to 05:30 p.m.	Total Walks. 10		
ii	Attempt all the questions.) Figures to right indicate full marks i) Draw neat diagrams wherever it re	quires.		
)- 1	Answer the following Multiple Choice Questions.			
1.	, , ,			
	and control.	c) synergetic		
	a) pollution b) modern	d) traditional		
2.	chemists have been involved in developing models for environmental			
	phenomena.			
	a) Analytical	c) Organic		
	b) Environmental	d) Physical		
3.	is not an alternative fee	edstock for adipic acid.		
	a) Sucrose	c) Benzene		
	b) L-glucose	d) All of these		
4.	A carbohydrate is generally mixe	d as cutting agent in		
	a) cocaine	c) protein		
	b) LSD	d) PCP		
5.	Morphine is the raw material for the production of			
	a) heroin	c) codeine		
	b) LSD	d) PCP		
6.	is a naturally occurring substance.			
	a) Marijuana b) PCP	c) Heroin d) None of these		
7.	A covalent disulfide bond can be formed in			
	a) cysteine	c) lysine		
	b) alanine	d) valine		
8.	Hydrophilic amino acids can form or hydrogen bonds with water.			
	a) peptide	c) van der Waals		
	b) non-polar	d) ionic		

Q-2	din was	Answer the following short questions. Each question carries equal mark. (Any Seven)	(14)
	1.	Define Green chemistry.	` '
	2.	What is mean by atom economy?	
	3.	Give examples of green solvents.	
	4.	What are the methods other than treatment and abatement to achieve pollution prevention?	
	5.	What is BAC (Blood Alcohol Concentration)?	
	6.	What is illicit drug?	
	7.	What is forensic toxicology?	
	8.	List out the name of the molecular targets on which drug works.	
	9.	Define active site of an enzymes	
Q-3	(a)	Why should chemist pursue the goal of green chemistry?	(06)
Q-3	(b)	Discuss the limitation / obstacle of green chemistry.	(06)
		OR OR	
Q-3	(b)	Explain with example alternative feedstock / starting materialsa tool of green chemistry.	(06)
Q-4	(a)	Discuss the absorption of ethanol in our body.	(06)
Q-4	(b)	Write a note on hallucinogens drug, i) Marijuana ii) LSD.	(06)
		OR	
Q-4	(b)	Explain field sobriety testing program for people who are intoxicated.	(06)
Q-5	(a)	What is the use of medicinal chemistry? What is meant by good drug?	(06)
Q-5	(b)	Write a short not on secondary structure of DNA.	(06)
		OR S	
Q-5	(b)	Write a note on enzymes as catalysts.	(06)
Q-6	(a)	Explain the catalytic role of enzymes as binding interaction.	(06)
Q-6	(b)	1) Explain reduction of pyruvic acid to lactic acid using enzymes.	(03)
		2) Explain the catalytic role of enzymes as acid / base catalyst.	(03)
		OR	
Q-6	(b)	Why oxidation chemistry is considered as the most polluting chemical technology?	(06)
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