(97) No. of Printed Pages. 2

Sardar Patel University Examination
B.Sc. (First Semester)
Friday 15th November, 2013
Subject code: US01CICV01 (Industrial Aspects of Chemistry)
Industrial Chemistry (Vocational)

Time: 02:30 to 04:30pm **Total Marks: 70**

Q-1 **Select right option from given in the following questions.** **(10)**

I Which of the following fraction is used for water proofing of roofs and road making?
(a) Asphalt (b) Grease (c) Wax (d) None of these

II Girbotol process is used in crude oil to remove_____.
(a) Salt (b) Sulfur (c) Water (d) None of these

III Which is the correct one from following in the case of naphthenes?
(a) Unsaturated (b) Saturated cyclic (c) Aromatic (d) Saturated

IV Which one is highest rank coal?
(a) Lignite (b) Bituminous coal (c) Anthracite (d) None of these

V Hydrogen sulfide is removed from coal gas by reacting it with...
(a) NaOH (b) Fe_2O_3 (c) H_2O (d) NH_3

VI The hydrolysis of octa acetate gives.....
(a) Cellobiose (b) Nitro cellulose (c) Celluloid (d) Cellophane

VII Which of the following is insensitive to moisture?
(a) Cellobiose (b) Cuprasilk (c) Acetate silk (d)Viscose silk

VIII Which asbestos is white in colour?
(a) Crocidolite (b) Chrysotile (c) Tremolite (d) Actinolite

IX Which material is used as black pigment in printing ink?
(a) Carbon (b) Zeolite (c) Alumina (d) Clay

X What is the glass transition temperature pure SiO_2?
(a) 1610K (b) 1500K (c) 1636K (d) 1600K

Q-2 **Answer any ten of the following:** **(20)**

I Give the characteristics of an ideal gasoline
II Give origin of petroleum
III What is mining of petroleum?
IV Write chemical composition of:
(a) Lignite b) Anthracite
IV Enlist the classification of fuels
VI Enlist the types of carbonization
VII How the sorbitol is prepared?
VIII Enlist the uses of glycogen
IX Enlist the uses of triethylene glycol
X Enlist the applications of carbon
XI Compare diamond and graphite.
XII What is diamond?

Q-3 Discuss in detail catalytic cracking & catalytic reforming. **(10)**

OR

Q-3 Discuss in detail Fischer-Tropsch method & Bergius process to synthesize petrol with neat diagram **(10)**

Q-4 I Explain Ultimate analysis of coal in detail **(05)**
II Explain proximate analysis in detail **(05)**

OR

Q-4 I Explain carbonization process in detail **(05)**
II Explain in detail distillation of coal tar **(05)**

Q-5	**I**	Write the preparation, properties and uses of Starch.	**(05)**
	II	Write the note on acetate silk	**(05)**
		OR	
Q-5	**I**	Write the brief note on glycerol.	**(05)**
	II	Write the preparation, properties & uses of: (a) Dextrin (b) Methanol	**(05)**
Q-6		Write short note on:	
	I	Clay	**(05)**
	II	Silicate	**(05)**
		OR	
Q-6	**I**	Discuss the properties, sources and uses of zeolite.	**(05)**
	II	Give the appearance, structure, general properties and characteristics of carbon	**(05)**

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