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SEAT No. _____

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[46/A16]

SARDAR PATEL UNIVERSITY
B. Sc. Industrial Chemistry (V)
SEMESTER – VI EXAMINATION -2018
Heavy and fine organic chemicals
SUB CODE: US06CICV02

Date: 28TH March 2018
Wednesday

Time: 10:00 AM TO 1:00 PM
Total Marks: 70

Q.1 Choose the correct answer.

[10]

- (1) The catalytic dehydrogenation of isopropyl alcohol gives _____.
 (A) Vinyl acetate (C) Acetaldehyde
 (B) Propagyl alcohol (D) Acetone
- (2) Propionaldehyde and formaldehyde reacts with ammonia to give _____.
 (A) 2,6-dimethyl pyridine (C) 3,5-dimethylpyridine
 (B) 3-methyl pyridine (D) 4-methyl pyridine
- (3) Acetaldehyde and formaldehyde reacts with ammonia to give mainly _____.
 (A) Pyridine (C) Urea
 (B) Picolines (D) Formic acid
- (4) The water containing about 1 to 2% glycerin is called as _____.
 (A) Sweet water (C) Absolute alcohol
 (B) Harsh water (D) Hard water
- (5) When alcohols or phenols are reacted with phosphorous pentoxide the mixture of _____ is formed
 (A) Di and tri esters (C) Mono and di esters
 (B) Diesters (D) Ethers
- (6) Phosphorous oxychloride reacts with phenols to form _____.
 (A) Tri methyl phosphate (C) Phosphoric acid
 (B) Tri aryl phosphate (D) Phosphorous pentachloride
- (7) The carbon tetrachloride is removed from the sulfur by _____.
 (A) Distillation (C) Extraction
 (B) Evaporation (D) Drying
- (8) The action of bleaching powder on acetone yields _____.
 (A) CH₃Cl (C) CHCl₃
 (B) CH₂Cl₂ (D) CCl₄
- (9) In manufacture of methylamines, vapours pass through reaction chamber containing _____ as catalyst.
 (A) Silica-gel (C) Iron borings
 (B) Alumina-gel (D) Palladium
- (10) Propylene oxide is isomerized to allyl alcohol in the presence of _____ catalyst.
 (A) Trilithium orthophosphate (C) Palladium orthophosphate
 (B) Trilithium phosphate (D) Tellurium orthophosphate

Q.2 Answer the following.(attempt ten)

[20]

- (1) Write the uses of vinyl acetate.
- (2) Draw the flow sheet of vinyl chloride from acetylene and HCl.
- (3) Write the uses of phenol.
- (4) Draw the flow sheet for manufacture of formaldehyde from methanol.
- (5) Write the raw materials required for manufacture of glycerin via acrolein.
- (6) Draw the flow diagram for manufacture of glycerin from acrolein route.
- (7) Write the reactions for chlorination of methane.
- (8) Enlist the uses of chloroform.

①

(P.T.O.)

- (9) Draw the flow sheet for manufacture of methyl chloride and dichloromethane.
 (10) Explain the chemical properties of di-butyl ether.
 (11) Write chemical properties of DMSO.
 (12) Write the reaction of manufacture of alkylamines from alcohol and ammonia.

Q.3 (A) Write a note on phenol by cumene process. [05]
 (B) Write a note on vinyl acetate. [05]

OR

Q.3 Explanatory note on vinyl chloride [10]

Q.4 (A) Write a note on melamine. [05]
 (B) Write a note on glycerin from propylene via allyl chloride [05]

OR

Q.4 (A) Explain manufacturing process of formic acid. [05]
 (B) Explain about triphenyl phosphine. [05]

Q.5 (A) With the help of flow diagram explain manufacture of tri ethanol amine. [05]
 (B) With the help of flow diagram explain manufacture of chloroform from acetone and bleaching powder [05]

OR

Q.5 With the help of flow diagram explain manufacture of chloroform via chlorination [10]

Q.6 (A) Write explanatory note on sulfolane. [05]
 (B) Write the manufacturing process of diethyl ether. [05]

OR

Q.6 (A) Write the manufacturing process of DMSO. [05]
 (B) Write note on DMF. [05]

②