

SEAT No. \_\_\_\_\_

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# Sardar Patel University

B. Sc. ( Semester – VI ) Examination  
Industrial Chemistry Vocational

27<sup>th</sup> March 2019, Wednesday

TIME: 10:00 TO 01:00PM

COURSE NO: US06CICV02 (HEAVY AND FINE ORGANIC CHEMICALS)

Notes: Figures to the right indicate full marks.

Total marks: 70

Q.1 Answer the following Multiple Choice Questions. (All are compulsory) (10)

- Propyl alcohol reacts with aldehyde in the presence of acid catalyst to form .....  
A. Ketones  
B. Acid chlorides  
C. Acetals  
D. Carboxylic acid.
- Acetaldehyde and formaldehyde reacts with ammonia to give mainly.....  
A. Pyridine  
B. Picolines  
C. Acids  
D. None of these.
- Reaction of paraldehyde with aqueous ammonia in the liquid phase gives .....  
A. 3,5-dimethyl pyridine  
B. 6-ethyl-2-methyl pyridine.  
C. 3-methylpyridine  
D. 5-ethyl-2-methyl pyridine.
- The high pressure continuous chlorination of propylene yields .....  
A. Acid chlorides  
B. Ketones  
C. Allyl chlorides  
D. None of these.
- Phosphorous Oxy chloride reacts with phenols to form .....  
A. Tri methyl phosphate  
B. Tri aryl phosphate  
C. Phosphoric acid  
D. None of these.
- Melamine can be synthesized from urea at .....<sup>o</sup>C  
A. 410 to 430 <sup>o</sup>C  
B. 370 to 390 <sup>o</sup>C  
C. 390 to 410<sup>o</sup>C  
D. None of these.
- The action of bleaching powder on acetone yields .....  
A. Carbon tetrachloride  
B. Methyl chloride  
C. Chloroform  
D. None of these.
- Which catalyst is used in manufacture of carbon tetrachloride?  
A. Copper  
B. Platinum  
C. Alluminium.  
D. Iron boarings.
- Which of the following is not miscible with aliphatic-cyclic hydrocarbons.  
A. DMF  
B. n-butyl ether  
C. THF  
D. 2-pyrrolidone.
- Reaction of t-butyl ether with silver carbonate in dry ether yields .....  
A. sec- butyl ether  
B. iso butyl ether  
C. n-butyl ether  
D. t-butyl ether.

Q.2 Answer the following questions in short.

(20)

1. Write a properties and uses of "Phenol".
2. Write a properties and uses of "Phthalic anhydride".
3. Write the properties of acetylene.
4. Give properties and uses of "Formaldehyde".
5. Give properties and uses of "Glycerine".
6. Write the properties of "Melamine".
7. Write the uses of "Methyl chloride".
8. Give properties and uses of "Chloroform".
9. Give properties and uses of "Carbon tetrachloride".
10. Write the physical properties of Di-butyl ether.
11. Write the uses of "DMF".
12. Write the reaction for Alkylamines.

Q.3 With the help of flow diagram explain manufacture of following.

(10)

- A. Vinyl acetate
- B. Acetone.

OR

Q.3 With the help of flow diagram explain manufacture of following.

(10)

- A. Phenol from benzene sulfonate process
- B. Phthalic anhydride from o-oxylenes.

Q.4 With the help of flow diagram explain manufacture of "Sorbitol" and "Formaldehyde".

(10)

OR

Q.4 Write a note on Glycerol and formic acid.

(10)

Q.5 Discuss the "Chlorination of Methane".

(10)

OR

Q.5 Write the detail about Dialkylaminoethanol and Tri ethanol amine.

(10)

Q.6 Write a notes on "THF and DMSO".

(10)

OR

Q.6 Write a notes on industrial solvents "Dioxane and Alkyl pyrrolidone".

(10)