SEAT No._____ No. of Printed Pages: 2

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SARDAR PATEL UNIVARSITY

Bachler of Science [Semester – III] Examination-2022

Subject code: US03CICH22 (N.C.)

Subject Title: Organic Chemistry

DATE: 16/11/2022 (Wednesday)
TIME: 10:00 AM TO 01:00 PM **TOTAL MARKS: 70**

Q-1 Choose the correct option from the following and rewrite the sentence. [10]

1) Phenol is used _____.
   (a) in alcoholic beverages (b) as an antiseptic
   (c) as anesthetic (d)as moth repellent
2) Rectified spirit is _____.
   (a) 100 % ethanol (b) 95% ethanol
   (c) 100% methanol (d) 95% methanol
3) Which of the following have the highest boiling point?
   (a) Methanal (b) Propanal
   (c) Ethanal (d) Butanal
4) Canizaro reaction is not given by_____.
   (a) Formaldehyde (b) Acetaldehyde
   (c) Benzaldehyde (d) None of above
5) Which of the following compound is not aromatic?
   (a) Pyrrole (b) Pyrrolidine
   (c) Pyridine (d) Pyrimidine
6) Which of the following have highest boiling point?
   (a) Furan (b) Pyrrole
   (c) Pyridine (d) Thiophene
7) The 'N' atom in pyrrole is _____ hybridization.
   (a) SP (b) SP^2 (c) SP^3 (d) SP^3d
8) Anthracene undergo electrophilic substitution reaction mainly at_____.
   (a) C-1 (b) C-2 (c) C-8 (d) C-9
9) Naphthalene oxidation undergoes acidic $KMnO_4$ gives _____.
   (a) phthalic anhydride (b) phthalic acid
   (c) phthalonic acid (d) naphthaquinone
10) Completely catalytic hydrogenation of anthracene gives _____.
   (a) tetrahydro anthracene (b) hexahydro anthracene
   (c) octahydro anthracene (d) perhydro anthracene

Q-2 Answer the following questions. [Attempt Any Ten] [20]

1) Write Williamson synthesis for Ether.
2) Describe Hofmann degradation of amide.
3) Give any two preparation of alcohol.
4) Write prepration of ketone by Fridal-Craft reaction.
5) Write down two preparation of carboxylic acid.
6) Give cannizaro reaction for aldehyde.
7) Discuss the structure of pyridine.
8) Write down chichibabin reaction.
9) Write a source of pyridine.
10) Give the resonating structure of anthracene.
11) Write fridal-craft reaction for naphthalene.
12) Give the resonating structure of phenanthrene.

Q-3

A) Write short note on reductive amination. (05)
B) Explain ring substitution of phenol. (05)

OR

A) Write a note on Alcohol as acid and base. (05)
B) Explain Hinsberg test for different amines. (05)

Q-4

A) Describe oxidation and reduction reaction for aldehyde and ketone. (05)
B) Write a note on di-carboxylic acid. (05)

OR

A) Discuss addition of alcohol in aldehyde and keone(acetal formation). (05)
B) Write down Grignard and nitrile synthesis for carboxylic acid. (05)

Q-5

A) Discuss structure of pyrrole and thiophene. (05)
B) Explain basicity of pyridine. (05)

OR

A) Neucleophilic substitution take place at 2&4 positions not at position 3 in pyridine explain. (05)
B) Describe source of pyrrole and furan. (05)

Q-6

A) Write a note on naphthalene derivatives. (05)
B) Describe electrophilic addition and substitution reaction anthracene. (05)

OR

A) Discuss structure and preparation of phenanthrene. (05)
B) Write the Haworth's synthesis of naphthalene. (05)