

- P.T.O

- 11) The 'N' atom in pyridine is -----
 - a) Sp^3 hybridized
 - b) Sp^2 hybridized
 - c) Sp hybridized
 - d) Cannot be predicted
- 12) Staggered conformation is more stable than eclipsed conformation.
 - a) True
 - b) False
- 13) Which of the following compounds is an optically active compound?
 - a) $CH_3CHOHCOOH$
 - b) $CHCl_3$
 - c) CH_3CH_2COOH
 - d) CH_3CH_2OH
- 14) Pyridine react with mixture of $KMnO_4$ & H_2SO_4 at $300^\circ C$ to give.
 - a) 1-Nitropyridine
 - b) 2-Nitropyridine
 - c) 3-Nitropyridine
 - d) 4-Nitropyridine
- 15) It is possible to distinguish between optical isomers.
 - a) By using chemical tests
 - b) By mass spectrometry
 - b) By IR spectroscopy
 - d) By polarimetry
- 16) Which of the following reaction of reduction is carried in the presence of hydrazones with strong base.
 - a) Birch reduction
 - b) Clemmensen reduction
 - c) $LiAlH_4$
 - d) Wolf Kushner reduction
- 17) Which at the following reaction is carried out in the presence of Amalgamated zinc and HCl?
 - a) Clemmensen reduction
 - b) Birch reduction
 - c) Metal hydride
 - d) Wolf Kishner
- 18) Which of the following not a five memberd ring?
 - a) Pyridine
 - b) Pyrrole
 - c) Furan
 - d) Thiphen
- 19) Fischer synthesis is the famous method used for the synthesis of-
 - a) Quinoline
 - b) Indole
 - c) Pyrrole
 - d) Furan
- 20) All the following are fused heterocyclic compound except one.
 - a) Carbazole
 - b) Benzimidazole
 - c) Imidazole
 - d) Benzothiazole

2. Solve any two.

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- a) Discuss the conformation of ethane and n-butane.
- b) Describe Racemic modification and discuss detail about resolution of racemic mixture.
- c) Write the synthesis, aromaticity, reaction and medicinal uses of furan and thiphen.

3. Solve any seven.

- a) Write note on enantiomers and diastereomers
- b) Discuss about Dakin reaction.
- c) Discuss about stereospecific and stereoselective reaction.
- d) Write reaction of pyrazole.
- e) Write about birch reduction.
- f) Write about optical activity.
- g) Write reaction of isoquinoline.
- h) Write about pyridine and its basicity of pyridine.
- i) Write about Wolffkisher reduction.
