

Bharati Vidyapeeth's College of Pharmacy

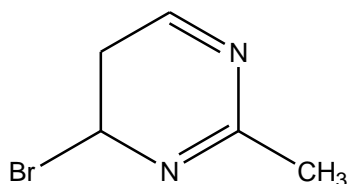
Sector-8, CBD Belapur, Navi Mumbai. 400614

SAMPLE QUESTIONS

Third Year B. Pharm. Sem-V

ORGANIC CHEMISTRY III - CBSGS SYLLABUS

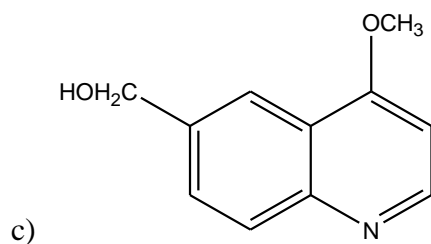
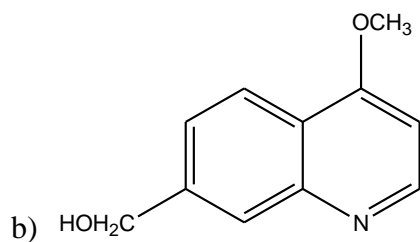
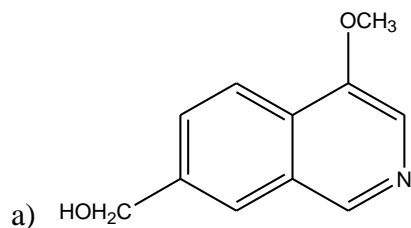
Q. 1 Select correct IUPAC name of the following structure

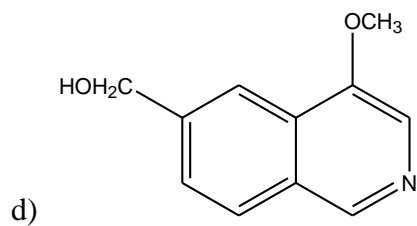


- a) 4-Bromo-2-methyl-pyrimidine
- b) 4-Bromo-2-methyl-4,5-dihydro-pyrimidine
- c) 6-Bromo-2-methyl-5,6-dihydro-pyrimidine
- d) 4-Bromo-2-methyl-4,5-dihydro-pyridine

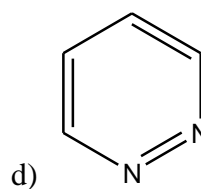
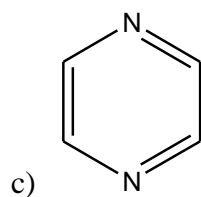
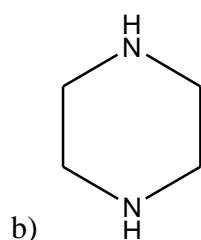
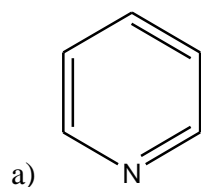
Q.2 Select the correct structure from given IUPAC name-

7-Hydroxymethyl-4-methoxy isoquinoline





Q.3 Identify the structure of pyrazine



Q.4 Which compound is not heteroaromatic?

- a) Furan
- b) Indole
- c) Quinoline
- d) Piperidine

Q.5 Paal-Knorr synthesis of thiophene involves...

- a) Reaction of 1,4-dicarbonyl compound and phosphorus pentachloride
- b) Reaction of 1,4- diamino compound and phosphorus pentasulfide
- c) Reaction of 1,4- dicarbonyl compound and phosphorus pentasulfide
- d) Reaction of 1,5- dicarbonyl compound and phosphorus pentasulfide

Q.6 In Pyrrole electrophilic aromatic substitution reaction takes place at which position?

- a) First
- b) Second
- c) Third
- d) Does not occur

Q.7 Which is more basic among Pyrrole, thiophene and Furan?

- a) Furan
- b) Pyrrole
- c) Thiophene
- d) All are equally basic

Q.8 Amidine and 1,3-diketone is used for the synthesis of...

- a) Pyridine
- b) Quinoline
- c) Imidazole
- d) Pyrimidine

Q.9 Under vigorous condition bromination of pyridine yields...

- a) 1-Bromopyridine
- b) 2-Bromopyridine
- c) 3-Bromopyridine
- d) 4-Bromopyridine

Q.10 Nitration of imidazole gives..

- a) 4-Nitroimidazole
- b) 3-Nitroimidazole
- c) 1-Nitroimidazole
- d) 2-Nitroimidazole

Q.11 In which method of synthesis of quinoline, aniline is treated with sulphuric acid, glycerol and oxidizing agent?

- a) Doebner-Miller synthesis
- b) Skraup synthesis
- c) Conrad-Limpach synthesis
- d) Friedlander synthesis

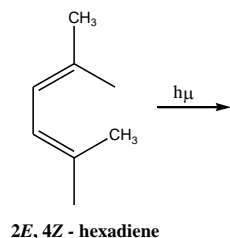
Q.12 In isoquinoline at what position nucleophilic substitution reaction takes place?

- a) Fourth position
- b) Second position
- c) First position
- d) Third position

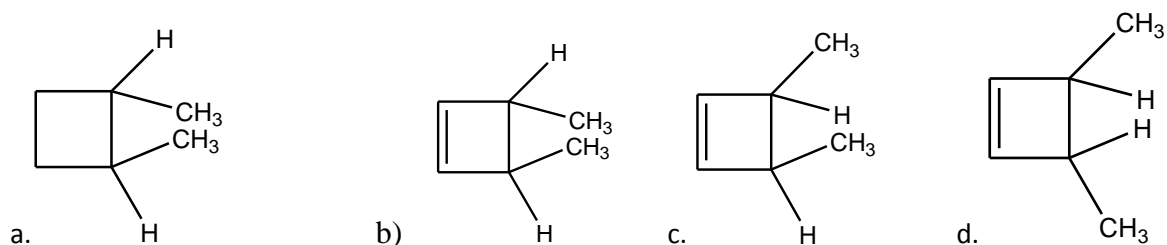
Q.13 Claisen rearrangement reaction is a type of

- a) Cycloaddition reaction
- b) Electrocyclic reaction
- c) Sigmatropic reaction
- d) Electrophilic substitution reaction

Q.14 The product for



is



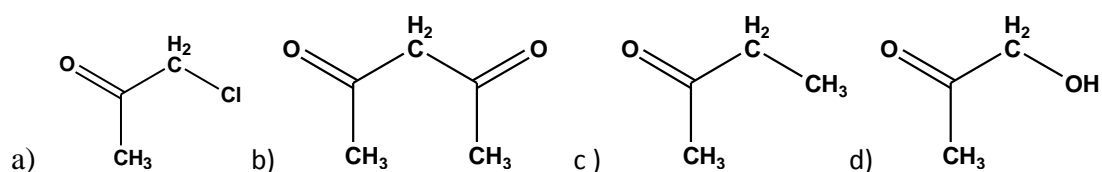
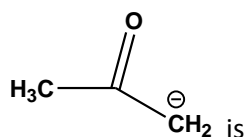
Q.15 A Diels alder reaction is a type of

- a) 2+2 cycloaddition
- b) Electrocyclic reaction
- c) Elimination reaction
- d) 4+2 cycloaddition

Q.16 Disconnection arrow is denoted by

- a)
- b)
- c)
- d)

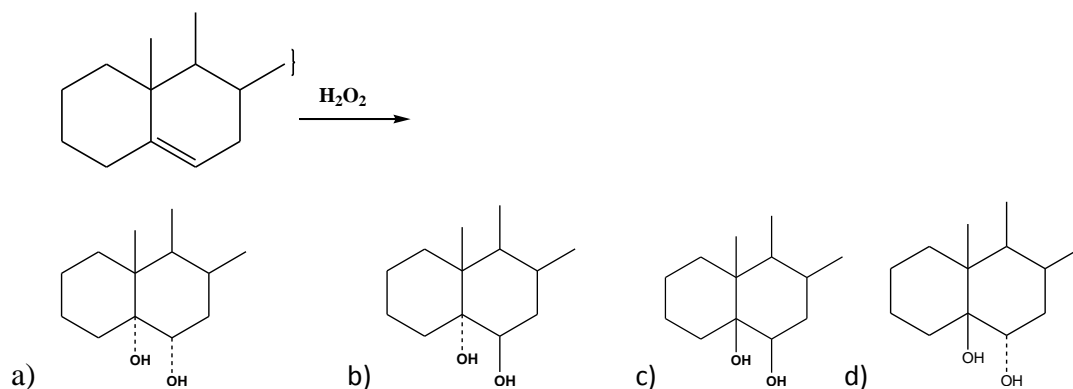
Q.17 The synthetic equivalent for the synthon



Q.18 The terminology “ Nor “ is used in nomenclature of steroids for

- Presence of methyl group
- Absence of methyl group
- Presence of ethyl group
- Absence of methyl group

Q.19 Predict the product for following reaction



Q.20 Conversion of testosterone into estradiol is a type of

- Reduction reaction
- Oxidation reaction
- Hydroxylation reaction
- Isomerisation reaction

Q.21 Following are principles of green chemistry except

- Atom efficiency
- Safer products by design
- Energy efficient by design
- Non-renewable raw materials

Q.22 The atom efficiency of following reaction



- 89%
- 98%
- 87%
- 78%

Q. 23 Penicillin G is biocatalysed to 6-amino penicillanic acid by which of the following biocatalyst

- a) Pen acylase
- b) Penicillinase
- c) β -lactamase
- d) transamidase

Q.24 Paal-knorr synthesis of furan involves cyclization of-

- a) 1,5-diketone under acidic condition
- b) 1,4-diketone under acidic condition
- c) 1,3-diketone under acidic condition
- d) 1,4-diketone under basic condition

Q.25 Following are the advantages of biocatalysts except

- a) Chemoselectivity
- b) Regioselectivity
- c) Stereoselectivity
- d) Higher waste generation

