

**RE-APPEAR, EXAMINATION
DEC, 2024**

Roll No _____



Course Title: Pharmaceutical Organic Chemistry-III

Course Code: BP401T

Programme : B. Pharm

Sem: IVth Semester

Time : 3 hrs.

Max. Marks: 75

NOTE: Attempt all questions from section-I, any two questions from section-II and any seven questions from section-III.

Section A(20 X 1=20 Marks)

1.	In Newman projection formula, front carbon atom is shown by a..... a) Circle b) Ellipse c) Dot d) Line	CO3
2.	Thiophene cannot be prepared from a) acetylene b) n-butane c) ethylene d) sodium succinate	CO4
3.	Pyridine undergo electrophilic substitution reaction at position number- a) 2 b) 3 c) 4 d) 1	CO3
4.	Molecular formula of pyrrole is ____ a) C ₄ H ₅ N b) C ₄ H ₄ N c) C ₅ H ₅ N d) C ₆ H ₆ N	CO4
5.	The carbon atom having four different substituents is called as..... a) Chiral carbon b) Good carbon c) Bad carbon d) symmetric carbon	CO3
6.	_____ is not a heterocyclic aromatic compound. a) Furan b) Pyrrole c) Thiophene d) Naphthalene	CO1
7.	Furan, pyrrole and thiophene undergo substitution at _____ position a) 1 b) 2 c) 3 d) 4	CO4
8.	The elements of symmetry are useful to determine.....of molecule. a) reactivity b) symmetry c) polarizability d) size	CO3
9.	A mixture of equal amounts of two enantiomers A) Racemic mixture B) Optically inactive C) Implies that the enantiomers are meso forms D) Both A and B	CO2
10.	Staggered form is more stable than eclipsed form A) True C) Both A and B B) False D) None of the above	CO1
11.	The priority sequence is given on the basis of... a) Atomic size b) Atomic number c) Electronegativity d) Energy	CO3
12.	The angle between Hydrogen on near carbon and farther carbon is called..... a) Dihedral angle b) rotational angle c) rectangle d) cross angle	CO1
13.	The reduction using Zn-Hg/HCl is called as..... a) Clemmenson's reduction b) Birch reduction c) Catalytic reduction d) Total reduction	CO2
14.	The isomers which differ in the position of substituent are called..... a) Position isomers b) Chain isomers c) Functional isomers d) Metamers	CO1
15.	Pyridine on heating with nitrating mixture gives a) 1-nitro pyridine b) 2-nitro pyridine c) 3-nitro pyridine d) 4-nitro pyridine	CO1
16.	The stereoisomers which are not mirror images of each other are called as..... a) Epimers b) Conformers c) Diastereomers d) None of these	CO3

17	Which of the following is nitrating mixture, a) HCl/H ₂ SO ₄ b) HNO ₃ /H ₂ SO ₄ c) H ₂ /Pt d) All of these	CO1
18	Dimethyl ether and ethyl alcohol are examples of.....isomerism a) Position b) Chain c) Functional group d) Metamers	CO3
19	Pentane and isopentane are: [A] Enantiomer [B] Geometric isomer [C] Optical isomer [D] None of the above	CO3
20	The plane polarized light vibrates only in.....plane. a) One b) two c) Many d) Does not vibrate	CO3

Section B (2 X 10 = 20 Marks)

1	Write the mechanism of Oppenauer-oxidation reaction. Enumerate the application of Oppenauer-oxidation reaction.	CO2
2	Write method of preparation ,reactions and medicinal uses of Pyridine	CO4
3	Give various methods of determination of geometric isomers ?	CO3

Section C (7 X 5 = 35 Marks)

1	Write a note on conformational isomerism in cyclohexane?	CO3
2	Explain Wolf Kishner reduction?	CO2
3	Write the reaction and uses of isoquinoline ?	CO3
4	Explain :- Pyridine undergo electrophilic substitution at β position Thiophene is more stable and aromatic than furan and pyrrole	CO2
5	Write the chemical Preparation of Thiophene?	CO4
6	Write the reactions of imidazole.	CO3
7	What do you mean by optical activity? Describe the conditions for optical activity?	CO3
8	Explain the relative aromaticity and reactivity of furan, thiophene and pyrrole,	CO1
9	Give structures and numbering of Furan ,Purine, Acridine, Thiophene and quinoline	CO1