

Question Paper

Exam Date & Time: 09-May-2019 (02:00 PM - 05:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

BPharm - Semester -IV
End Semester Examination, MAY- 2019
Exam Date:09-05-2019

Pharmaceutical Organic Chemistry-III [PCH-BP401T]

Marks: 75

Duration: 180 mins.

I Multiple Choice Questions (MCQs)

Answer all the questions.

Section Duration: 30 mins

1) Chair conformation is more stable than boat conformation because of (1)

staggered bonds

eclipsed bonds

skew interactions

axial bonds.

2) Example for a stereo selective reaction (1)

E1 reaction

E2 reaction

SN1 reaction

addition of halogen to alkenes

3) 1,3 diazines are also known as . (1)

Pyridine

pyrimidine

pyrazine

pyridazine

4) Example for a stereo specific reaction . (1)

E1 reaction

E2 reaction

SN1 reaction

addition of halogen to alkenes

5) Example for a diuretic drug (1)

Phenobarbital

Furosemide

Nitrofurantoin

Mephobarbital

- 6) Triazoles are (1)
- 2 Nitrogens in a 6 membered ring
2 Nitrogens in a 7 membered ring
3 Nitrogens in a 5 membered ring
2 Nitrogens in a 5 membered ring
- 7) Pyridine is more basic than (1)
- pyrrole
thiophen
oxazole
thiazole
- 8) Carbamazepine is a..... membered ring (1)
- 4
5
6
7
- 9)is used in Oppenauer oxidation (1)
- Liquid ammonia
Aluminium isopropoxide
hydrogen peroxide
LiAlH₄
- 10) Oxidation of quinoline using KMnO₄ gives (1)
- Quinoline-1-oxide
Quinoline-2-oxide
pyridine-2,3-dicarboxylic acid
nicotinic acid
- 11) α,β -Benzopyrrole is (1)
- quinoline
benzimidazole
indole
isoquinoline
- 12) Indole upon reaction with ozone gives (1)
- hydroxybenzaldehyde
2-formamidobenzaldehyde
octahydroindole
benzimidazole

In quinoline nucleophilic substitution takes place at position (1)

6

4

3

2

Enantiomers have almost all identicalproperties (1)

physical

chemical

biological

racemic

15) In Birch reduction aromatic rings are reduced to (1)

conjugated diene

unconjugated diene

cyclohexane

acyclic ring

16) 2,3-benzoquinoline is prepared from (1)

p-aminobenzaldehyde

isoquinoline

benzaldehyde

o-amino diphenylmethane

17) Isomers with the same molecular formula and same connectivity of atoms but different arrangement of atoms in space are called (1)

positional isomers

stereoisomers

functional isomers

structural isomers

Sulphadoxine is a derivative of (1)

pyrimidine

purine

oxazole

oxepine

19) Theophylline is (1)

4,5-diaminopyrimidine

a cardiac stimulant

a purine derivative

nerve stimulant

20) Pyrimethamine is the medicinal derivative of (1)

pyridine

pyrimidine

pyridazine

piperidine

II Long Answers

Answer all the questions.

- 1) Explain RS system of nomenclature of optical isomers. What are enantiomers and diastereomers? Explain. (10)
- 2) Write one method of synthesis of pyrrole and discuss the electrophilic reactions of pyrrole with an example. Give the structure and uses of Metronidazole and Carbamazepine. (10)

III Short Answers

Answer all the questions.

- 1) Explain Skraup synthesis of quinoline with mechanism. (5)
- 2) Explain Gabriels method of synthesis of pyrimidine. Give the structure and uses of chloroquine. (5)
- 3) What is Clemmensen reduction? Explain (5)
- 4) Explain partial asymmetric synthesis and absolute asymmetric synthesis with example. (5)
- 5) Discuss the basicity of pyridine. (5)
- 6) What is a stereoselective reaction discuss with an example. (5)
- 7) Explain the conformational isomers of ethane and cyclohexane. (5)

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