10 MARKS

1.a) What are drug receptors? Write a note on the different types of receptors
available for drug action.
b) Define and classify adrenergic antagonists with suitable examples. Write the
synthesis and uses of i) Tolazoline ii) Propranolol.
2.Discuss the structural activity relationship of β phenyl ethyl amines of direct acting
sympathomimetics.
3.a) What are adrenergic neurotransmitters? Classify them with suitable examples.(3)
b) Write in detail about biosynthesis and catabolism of catecholamines. (3)
c) Mention the use and synthesis of salbutamol (4)
4.Describe in brief the biosynthesis, release, uptake and metabolism of acetylcholine.
5.Describe in brief the biosynthesis, release, uptake and metabolism of
Norepinephrine
6. Explain the SAR of sympathomimetics. Write the synthesis of salbutamol.
7.Classify sympathomimetic agents and describe their mode of action and structural activity relationship.
8.a) Classify adrenergic antagonists with examples.
b) Write the synthesis and uses of i) Tolazoline ii) Propranolol

5 MARKS

1. Describe the SAR of sympathomimetic agents.
2.Give synthesis and uses of Salbutamol
3.Explain the biosynthesis, metabolism and physiological role of adrenergic
neurotransmitters.
4.Discuss the structural activity relationship of β blockers and outline the synthesis of

propranolol.
5. Classify sympathomimetic agents and outline the synthesis of salbutamol
6.Write a note on cardio selective β1 blockers and write the structure and medicinal uses of any two drugs.
7.Define beta-adrenergic blocking drugs with structural representation.
8.Summarise the SAR of beta-blockers.
9.Write a note on β blockers with α1 receptor antagonist activity with chemical structure and its uses.
10.Discuss the chemistry and structural activity relationship of beta-adrenergic
blocking agents with examples.
11. Outline the synthesis and medicinal uses of (a) Propranolol (b) Tolazoline
12.Discuss the chemistry and structural activity relationship of alpha-adrenergic blocking agents with examples.
13.Write the structure, MOA & uses of Dopamine.
14.Write a note on alpha adrenergic blockers.
15. Outline the synthesis and medicinal uses of (a) Phenylephrine (b) Salbutamol.
16.Structure and uses of adrenaline and nor adrenaline.
17.Biosynthesis of catecholamines.
18.Biosynthesis and catabolism of Acetylcholine.
19.Write the synthesis of Tolazoline.
20.Outline the synthesis of Salbutamol and mention its uses.
21.Biosynthesis and catabolism of Noradrenaline.

2 MARKS

1.Catecholamines.
2.Write the structure of methyldopa
3.Write the structure and medicinal uses of prazocine

4.Write briefly on SAR of imidazoline nucleus of α adrenergic receptor agonist.
5.Explain the mechanism of action of β-haloalkylamines of adrenergic receptor antagonist.
6.Explain why non selective β blockers are contraindicated for the patients in conditions like Asthma and bronchitis?
7.Sketch the structure of clonidine and its medicinal use.
8.What happens on the replacement of N-H group at position 1 of the hydantoin
system with an oxygen atom. Write the structure of any one drug from this system
and its uses
9.Outline the synthesis of phenylphrine and mention its uses.
10. Sketch the structures of imidazoline nucleus of α adrenergic antagonist.
11.Explain briefly on the stereo selectivity of β blocking agents.
12.What happens when catechol moiety is replaced by resorcinol structure in β Phenyl ethyl amines of sympathomimetic agents? Sketch the resulting compounds with its medicinal uses.
13.Write any two indirect acting sympathomimetics with its chemical structure and uses.
14.Write the structure of terbutaline and isoproterenol and its uses.
15.What are adrenergic receptors?
16.Write the structure of any two oxazolidine diones
17.Uses of atenolol and terbutaline
18.Write the examples of non selective beta adrenergic blockers.
19.Write examples of direct acting sympathomimetic agents.
20. Write the structure and uses of Propranolol.
21.Uses of clonidine.
22.Examples of alpha adrenergic blockers
23.Give the structure and Use of Xylometazoline.
24.Adrenergic Neurotransmitters.

25.Structure and Uses of Oxazepam.
26.Adrenergic receptors.
27.Write the structure and use of Naphazoline.
28.Structure and uses of Ephedrine.