Name :	Uledh
Roll No. :	The Pharman Of Khows in Ger 2nd "Excellent"

Invigilator's Signature :

CS/B.Pharm/SEM-8/PT-809A/2011 2011 ADVANCED PHARMACOLOGY

Time Allotted : 3 Hours

Full Marks : 70

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

GROUP – A (Multiple Choice Type Questions)

1. Choose the correct alternatives for any *ten* of the following :

 $10 \times 1 = 10$

- i) Nicotinic acetylcholine receptor is
 - a) G-protein coupled receptor
 - b) Ligand-gated ion channel
 - c) nuclear receptor
 - d) kinase linked receptor.
- ii) The main targets for G-proteins, through which GPCRs control different aspects of cell functions, are
 - a) Adenylyl cyclase
 - b) Phospholypase C
 - c) Ion channel
 - d) Adenylyl exlase, phospholi pase C, ion channel.

8501

[Turn over

CS/B.Pharm/SEM-8/PT-809A/2011

c)

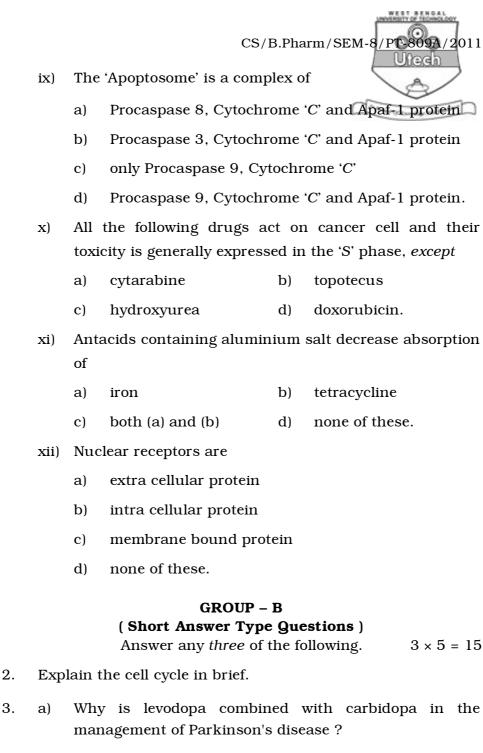
- iii) Indomethacin and related antihypertensive effect of
 - a) Losartan
 - Prazosin d) Captopril.
- iv) The neurotransmitter system in the brain most affected in Alzheimer's disease is

b)

- a) Glutaminergic b) Gabaergic
- c) Dopaminergic d) Cholinergic.
- v) Which of the following is a relatively cerebroselective anticholinesterase found to afford symptomatic improvement in Alzheimer's disease ?
 - a) Donepezil b) Gemfibrozil
 - c) Pyridostigmine d) Piracetam.
- vi) Select the drug which is used exclusively in organ transplantation and autoimmune disease, but not in cancers
 - a) Cyclophosphamide b) Cyclosporine
 - c) Methotrexate d) 6-Mercaptopurine.
- vii) Examples of physiological antagonism are
 - a) Acetylcholine and noradrenaline
 - b) Histamine and Adrenaline
 - c) Both (a) and (b)
 - d) None of these.
- viii) Bcl-2 protein is oncogenic because it
 - a) induces apoptosis b) inhibits apoptosis
 - c) induces cell cycle d) inhibits cell cycle.

8501

d drugs reduce Atenolol



b) Name two drugs to treat Myasthenia Gravis. 3 + 2

3

8501

[Turn over

CS/B.Pharm/SEM-8/PT-809A/2011



 $3 \times 15 = 45$

- 4. Write a short note on drug-food interaction.
- 5. Write a note explaining the four point assay.
- 6. Write the mechanism and site of action of Alkylating agent and Antimetabolites useful in neoplastic disease.

GROUP – C (**Long Answer Type Questions**) Answer any *three* of the following.

- 7. a) Explain the terms receptor, ligand and signal transduction.
 - b) Discuss the pathway by which metabotropic receptors act. 5 + 10
- 8. a) Classify immunostimulant and immunosuppressant drugs with proper examples.
 - b) Explain the induction and effector phases of lymphocyte activation with the site of action of immunosuppressant drugs. 5 + 10
- 9. What is biotransformation ? Explain in detail various phases of biotransformation. 15
- 10. a) What is cerebractive drug?
 - b) Write down the indications of cognition enhancers. How do they act ?
 - c) Write about tacrine as a drug of Alzheimer's disease.

2 + 5 + 3 + 5

- 11. a) Define the terms 'Apoptosis' and 'Angiogenesis'.
 - b) Outline the two main pathways in apoptosis in detail.
 - c) Write down the the rapeutic implication of Apoptosis. $(\ 1+1\)+9+4$

8501