

**Q.P. Code : 01094**

[Time: Three Hours]

[ Marks:75]

Please check whether you have got the right question paper.

- N.B:
1. All questions are compulsory.
  2. Figures to the right indicate full marks.
  3. Answer the question as per the given instruments.

**Q. 1** A) Choose the single best answer from the choice provided:

**(06)**

- i) Azathioprine is used for \_\_\_\_\_
  - a) Aplastic anemia
  - b) Organ transplant rejection
  - c) Psoriasis
  - d) Dermatitis
- ii) Which of the following is not a SLC Transporter?
  - a) Serotonin
  - b) Dopamine
  - c) P-glycoprotein
  - d) Organic Anion transporter
- iii) Following is an example of nuclear receptor
  - a) Insulin receptor
  - b) Growth factor receptor
  - c) Autacoid receptor
  - d) All of the above
- iv) Rasagiline is \_\_\_\_\_
  - a) COMT Inhibitor
  - b) Dopamine receptor agonist
  - c) Muscarinic receptor antagonist
  - d) MAO-B Inhibitor
- v) Mechanism of action of amiodarone is \_\_\_\_\_
  - a) Calcium channel blocker
  - b) Potassium channel blocker
  - c) Beta receptor channel blocker
  - d) Sodium channel blocker
- vi) The major drawback of calcium channel blockers is \_\_\_\_\_
  - a) Tachycardia
  - b) Fatigue
  - c) Glucose intolerance
  - d) Dyslipidemia

**[P.T.O]**

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- B) State whether following statements are true or false and justify your answer. **(10)**
- i) Methotrexate though a cytotoxic drug is useful for the treatment of rheumatoid arthritis.
  - ii) Tacrine is given as first line of treatment for Alzheimer's disease.
  - iii) Hydroxylation is a type of Phase I reaction.
  - iv) Grey baby syndrome is observed in children administered with chloramphenicol.
  - v) DNA damage is observed in case of apoptosis.

C) Match the following

i) SSRI's	a) Spironolactone	<b>(04)</b>
ii) Na channel blockers	b) Pioglitazone	
iii) Aldosterone antagonists	c) Phenytoin	
iv) Thiazolidinedione's	d) Citalopram	
	e) Ethosuximide	

- Q. 2** a) Discuss the factors affecting the rate of absorption of drugs. **(04)**
- b) Give the signal transduction mechanism for the following **(04)**
- i) GABAergic receptor
  - ii) Insulin receptor
- c) Discuss the pharmacokinetic factors affecting drug action. **(03)**
- Q. 3** a) Write a note on cellular and molecular mechanisms of morphine dependence. **(04)**
- b) Write note on factors affecting drug responsiveness. **(04)**
- c) Explain the advance in pharmacotherapy of hypertension. **(03)**
- Q. 4** a) Explain the pharmacological role of membrane transporters. **(04)**
- b) Write short notes on any two: **(04)**
- i) Role of beta blockers in CVS Disorders
  - ii) Advance in the pharmacotherapy of depression.
  - iii) Immune-suppressants.
- c) Discuss the intra-cellular regulation of calcium. **(03)**
- Q. 5** a) Discuss the molecular biology and pharmacological implication of apoptosis in detail. **(04)**
- b) Discuss the various classes of anti-epileptic drugs and explain any one class in detail. **(04)**
- c) Write a note on Phase-I and Phase-II reaction for metabolism of drugs. **(03)**
- Q. 6** a) Enlist the various drugs for treatment of arrhythmia and explain any one class in detail. **(04)**
- b) Discuss the newer therapies for management of diabetes in detail. **(04)**
- c) Role of calcineurin inhibitors in immunotherapy. **(03)**
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