

GUJARAT TECHNOLOGICAL UNIVERSITY**B.PHARM – SEMESTER – 5 EXAMINATION – SUMMER-2025****Subject Code: BP502TP****Date: 12-05-2025****Subject Name: Pharmacology II****Time: 02.30 PM TO 05.30 PM****Total Marks: 80****Instructions:****Instructions:**

1. Question -1 is compulsory to attempt.
2. Attempt any 04 questions from Question 2 to 7.
3. Make suitable assumptions wherever necessary.
4. Figures to the right indicate full marks.

Q.1 Answer the following questions. (1 mark each)**16**

- I. Calcium induced calcium release involve -----receptor induced increase in cytosolic Ca that leads to contraction of muscles
A. RYR1 B. RYR2 C. RYR3 D. None of the above
- II. The following adverse effect of corticosteroid is mainly due to their mineralocorticoid action.
A. Moon Face B. Increased susceptibilities to infection
C. increase in blood pressure D. Osteoporosis
- III. Which of the following agent can be used in labour and delivery?
A. Vasopressin B. Leuprolide C. Oxytocin D. Prolactin
- IV. Which one of the following is the most potent anti-inflammatory steroid?
A. Cortisol B. Dexamethasone C. Fludrocortisone D. Prednisone
- V. Identify drug that works by inhibiting sodium glucose transporter-2 in diabetics
A. Sitagliptin B. Dapagliflozin C. Dulaglutide D. Acarbose
- VI. Hydrochlorthiazide acts by
A. Inhibition of $\text{Na}^+\text{-K}^+\text{-2Cl}^-$ symport B. Antagonizing action of aldosterone
C. Inhibition of $\text{Na}^+\text{-Cl}^-$ symport D. Blocking Na channels
- VII. What hormone is produced in the peripheral tissues when levothyroxine is administered?
A. T3 B. T4 C. TSH D. FSH
- VIII. Ivabradine produces----- on heart
A. Bradycardia B. Tachycardia
C. No change in heart rate D. AV block
- IX. Following antiarrhythmic drug blocks potassium, sodium, and calcium channels
A. Amiodarone B. Quinidine
C. Propranolol D. lidocaine
- X. Early after depolarization results from
A. Overload of potassium ions B. Overload of sodium ions
C. Overload of calcium ions D. Potassium deficit
- XI. Which of the following is an irreversible inhibitor of cyclooxygenase:
A. Piroxicam B. Aspirin C. Phenylbutazone D. Indomethacin
- XII. Fibrates act via
A. activating lipoprotein lipase activity B. activating PPAR alpha receptor
C. reducing apoprotein C-III D. All of the above
- XIII. Which of the following is the most likely complication of insulin therapy?
A. Dilutional hyponatremia B. Hypoglycemia
C. Increased bleeding tendency D. Pancreatitis

- XIV. Which of the following used in hypertensive emergency?
 A. Sodium nitroprusside B. Diazoxide
 C. Amlodipine D. Propranolol
- XV. -----, Nonpeptide Vasopressin V2 R antagonist used in CHF.
 A. Nesiritide B. Tolvaptan C. Amrinone D. Secubitril
- XVI. Dysmenorrhoea is often associated with excess production of the following autacoid by the endometrium:
 A. Platelet activating factor B. 5-Hydroxy tryptamine
 C. Bradykinin D. Prostaglandins
- Q.2** (a) Classify antihypertensives. Discuss mechanism of action of calcium channel blockers giving suitable examples. **6**
 (b) Discuss Pharmacological actions of glucocorticosteroids. **5**
 (c) Draw action potential showing ionic movements in each phase. **5**
- Q.3** (a) Classify diuretics according to potency of action. Discuss M/A and uses of thiazide diuretics giving suitable examples. **6**
 (b) Discuss uses of prostaglandins. **5**
 (c) Write a note on fibrinolytics. **5**
- Q.4** (a) Discuss M/A and adverse effects of aspirin. **6**
 (b) Discuss uses of the followings: **5**
 1. Amrinone; 2 progesterone; 3. Methotrexate; 4. spironolactone; 5. nitroglycerine
 (c) Classify antiarrhythmics. Discuss mechanism of amiodarone. **5**
- Q.5** (a) Detail on oral hypoglycemic drugs. **6**
 (b) Enlist anterior pituitary hormones and explain their physiological actions. **5**
 (c) Write a note on antihistaminics. **5**
- Q.6** (a) Discuss mechanism, pharmacological actions and uses of digitalis. **6**
 (b) Classify lipid lowering drugs. Write mechanism and uses of fibrates. **5**
 (c) Discuss hormones regulating plasma calcium levels. **5**
- Q.7** (a) Define bioassay. Discuss insulin bioassay methods. **6**
 (b) Discuss actions and uses of Allopurinol. **5**
 (c) Write a short note on oral contraceptives. **5**
