Seat No.: _____　　　　　　　　　　　　　　　Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
B.PHARM - SEMESTER– 5　EXAMINATION –　SUMMER-2024

Subject Code:BP502TP　　　　　　　　　　**Date: 01/05/2024**
Subject Name: Pharmacology II
Time: 02.30 p.m. to 5.30 p.m.　　　　　　　**Total Marks: 80**

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. Dapagliflozin inhibits:
A.SGLT-1　　　　B. SGLT-2　　　　　C. DDPP-IV　　　D. PPAR-gamma

II. _____ is used in diagnosis of adrenal cortical insufficiency.
A. Tetracosactide　　B. Protirelin　　　　C. Calcitriol　　　　D. Teriparatide

III. Identify selective progesterone receptor modulator (SPRM):
A. Mifepristone　B. Norethisterone　C. Levonorgestrel　D. Ulipristal

IV. Allopurinol inhibits _____ and is useful in _____ treatment of gout.
A. xanthine oxidase, short-term　　B. uricase, short-term
C. xanthine oxidase, long-term　　D. uricase, long-term

V. Identify drug used in diabetic patients (with functional β-cells) and acting through inhibition of K_{ATP}^+ channel
A. Sitagliptin　　　　B. Dapagliflozin　　　C. Pioglitazone　　D. Glipizide

VI. Eplerenone acts by
A. Inhibition of Na^+-K^+-$2Cl^-$ symport　　B. Antagonizing action of aldosterone
C Inhibition of Na^+-Cl^- symport　　　　D. Blocking Na channels

VII. Oral administration of levonorgestrel is effective as post-coital contraceptive, if taken within _____of intercourse and repeated 12 hours later.
A. 72 h　　　　　B. 45h　　　　　　　C. 30h　　　D. 24h

VIII. Ranolazine acts by Inhibiting
A. Na^+ channel and β receptors　　B. Na^+ channel
C. Calcium Channels　　　　　　D. Potassium channels

IX. Following drug is a non-cardioselective β-blocker that has Class II & III anti-arrhythmic action:
A. Amiodarone　　　　　　　　B. Bretylium
C. Ibutelide　　　　　　　　　D. Sotalol

X. Delayed after depolarization results from
A. Overload of potassium ions　　　B. Overload of sodium ions
C. Overload of calcium ions　　　　D. Potassium channel deficiency

XI. Which of the following is an analgesic and antipyretic drug that lacks an anti-inflammatory action?
A. Acetaminophen　　B. Celecoxib　　　C. Colchicine　　D. Indomethacin

XII. Following drug acts via inhibiting intestinal absorption of cholesterol.
A. Ezetimibe　　B. Nicotinic acid　　C. Colestipol　　D. Gemfibrozil

XIII. Insulin can be used in treatment of:
a. Type 1 diabetes mellitus　　　　　　b. Type 2 diabetes mellitus
c. Hyperkalemia　　　　　　　　　　d. Poly cystic ovarian syndrome
A. a only　　B. a,b and c　　C. a and b　　D. a,b and d

XIV. Methaemoglobinemia is reported with the use of -------antihypertensive drug.
A. Sodium nitroprusside   B. Diazoxide
C. Amlodipine   D. Propranolol

XV. Co-administration of ACE Inhibitors with digoxin in CHF patients will
A. Synergistic effect with digoxin   B. Decrease toxicity of Digoxin
C. Increase toxicity of Digoxin   D. All of the above

XVI. -------given as an infusion to maintain patency of the ductus arteriosus in infants.
A. PGE1
B. PGF2 alpha
C. PGE2.
D. PGI2

Q.2 **(a)** Classify antihypertensive drugs. Write a note on AT1 receptor blockers.   **6**

(b) Discuss Pharmacological actions of glucocorticosteroids.   **5**

(c) Enlist drug treatments for CHF. Write a note on inodilators with suitable examples.   **5**

Q.3 **(a)** Classify diuretics according to potency of action. Discuss M/A and uses of potassium sparing diuretics giving suitable examples.   **6**

(b) Explain synthesis and uses of Prostaglandins.   **5**

(c) Write a note on anticoagulants.   **5**

Q.4 **(a)** Classify NSAIDs. Discuss Pharmacological actions of aspirin.   **6**

(b) Discuss use of the followings: **5**

     1. Calcitonin   2. Parathormone   3. Vit D   4. Nitrates   5. Insulin

(c) Write a note on Haematinics.   **5**

Q.5 **(a)** Write a note on oral hypoglycaemic drugs.   **6**

(b) Enlist thyroid hormones and explain their physiological and pharmacological actions.   **5**

(c) Explain Drug therapy of Gout.   **5**

Q.6 **(a)** Discuss mechanism, pharmacological actions and uses of amiodarone.   **6**

(b) Classify lipid lowering drugs. Write pharmacology of statins.   **5**

(c) Enlist fibrinolytics. Write a note on streptokinase.   **5**

Q.7 **(a)** Define bioassay. Discuss Digitalis bioassay methods.   **6**

(b) Discuss actions and uses of oxytocin.   **5**

(c) Write a short note on oral contraceptives.   **5**

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