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SEAT No. \_\_\_\_\_

No of printed pages: 02

SARDAR PATEL UNIVERSITY

M. Sc (Chemistry) Semester-IV Examination

Wednesday, 20-03-2019

Medicinal Chemistry (PS04CORC22)

Time: 02:00 p.m. to 05:00 p.m.

Total Marks: 70

Note: Right hand figures indicate marks.

Q. 1: Answer the following multiple choice questions.

[08]

- 1) Liver is the primary organ of drug \_\_\_\_\_.  
a) Distribution    b) Metabolism    c) Elimination    d) None
- 2) Intracellular and Extracellular are the main types of \_\_\_\_\_.  
a) Prodrug    b) Receptor    c) Agonist    d) None
- 3) Glyceryl trinitrate is acts as an \_\_\_\_\_ drug  
a) Antianginal    b) Antihypertensive    c) Antianxiety    d) Antidepressant
- 4) Depression caused due to genetically determine biochemical disorder is called -----  
a) Reactive    b) endogeneous    c) Manic    d) none
- 5) Antineoplastic drugs are used in the treatment of -----.  
a) Typhoid    b) Epilepsy    c) Cancer    d) Hypertention
- 6) Which of the following disease is caused by virus ?  
a) HIV    b) Ebola    c) Influenza    d) All
- 7) Drug that belongs to  $\beta$ -lactum antibiotic is \_\_\_\_\_.  
a) Ampicillin    b) Morfloxacin    c) Ofloxacin    d) Cefuroxime
- 8) Pharmacokinetic consideration do not involve \_\_\_\_\_.  
a) Route of administration    b) Time of peak action  
c) Cytotoxicity of drug    d) Frequency of drug administration

**Q. 2: Answer the following questions (Any seven)**

[14]

- 1) List the various types of receptors with suitable examples.
- 2) Explain the different processes of drug elimination.
- 3) Define: Agonist. Write the types of agonist.
- 4) Write a note on Antidepressant agent.
- 5) Give the classification of antiviral drugs according to treatment of protocol.
- 6) Differentiate between benign tumor and malignant tumor.
- 7) Define prodrug? What are the advantages of prodrugs over active drugs.
- 8) Write the advantages of computer aided drug design.
- 9) Write a note on Angina pectoris.

**Q.3: A) Discuss the various methods of drug administration in human body.**

[06]

**B) What are chemical messengers? Explain the signaling through hormones.**

[06]

**OR**

**B) Answer the following questions.**

[06]

- 1) Discuss the antagonist in pharmacodynamics.
- 2) Explain the pharmacokinetics in terms of first and zero order.

**Q.4: A) Define: Sedative and Hypnotics. Discuss the SAR of Barbituric acid.**

[06]

**B) What is hypertension? Give the classification of antihypertensive drugs with suitable**

[06]

**OR**

**B) Give the synthesis and uses of any two of the following drugs.**

[06]

- i) Diazepam      ii) Haloperidol      iii) Chlorpromazine

**Q.5: A) What are antineoplastic agents? Give their detailed classification and describe any one of them in detail.**

[06]

**B) What are antiviral agents? Give the classification according to mechanism of action and**

[06]

Discuss the life cycle of virus.

**OR**

**B) Give the synthesis and uses of any two of the following drugs.**

[06]

- i) Melphalan      ii) Mercaptopurin      iii) Acyclovir

**Q.6: A) Explain the term antibiotics with their classification. Discuss the mode of action of Penicillin drug.**

[06]

**B) Discuss the important methods which can be used for lead identification.**

[06]

**OR**

**B) Give the synthesis of the following drugs.**

[06]

- i) Amoxicillin      ii) Perfloraxin      iii) Cefuroxime

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