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

No of printed pages: 02

SARDAR PATEL UNIVERSITY

M. Sc (Chemistry) Semester-IV Examination

Tuesday, 19-11-2019

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) Which of the following is pharmacokinetic parameter?

- a) Clearance    b) Plasma concentration    c) Plateau effect    d) None

2) The primary organ of drug metabolism is \_\_\_\_\_.

- a) Skin    b) Liver    c) Lungs    d) None

3) Natural antibiotics are mainly obtained from \_\_\_\_\_.

- a) Polymer    b) Yeast    c) Fungal    d) Bacterial

4) Antidepressants are drugs which enhance the \_\_\_\_\_.

- a) Alertness    b) Blood pressure    c) Stress    d) Illness

5) Hypertension is mainly caused by \_\_\_\_\_.

- a) Genetic factor    b) Kidney diseases    c) Alcohol    d) All

6) Anticancer drugs are also known as \_\_\_\_\_.

- a) Antineoplastic    b) Antidepressant    c) Antibiotic    d) Antianxiety

7) Which of the following disease is caused by virus?

- a) HIV    b) Ebola    c) Influenza    d) All

8) Which of the following is from antibiotic class?

- a) Chloramphenicol    b) Chlorambucil    c) Cyclophosphamide    d) Carmustine

(P.T.O)

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

[14]

- 1) Define: Pharmacokinetics and Pharmacodynamics.
- 2) What are receptors? List the various types of receptors.
- 3) Write a note on Antidepressant agent.
- 4) Explain the term Angina pectoris.
- 5) How benign tumor is different from malignant tumor.
- 6) Define: Sedative and Hypnotics
- 7) Write the advantages of computer aided drug design.
- 8) Write the classification of antiviral drugs according to treatment of protocol.
- 9) Explain the different processes of drug elimination.

**Q.3: A) What are chemical messengers? Explain the signaling through hormones.**

[06]

**B) Answer the following questions.**

[06]

- 1) Write a note on Plateau effect
- 2) Describe about the agonists with different types in pharmacodynamics.

**OR**

**B) Discuss the various methods of drug administration in human body.**

[06]

**Q.4: A) Answer the following questions.**

[06]

- i) Discuss the structure activity relationship of Barbiturates
- ii) Write a note on Antianxiety agents.

**B) Explain the hypertension with their classification.**

[06]

**OR**

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

[06]

- i) Isocarboxide
- ii) Diazepam
- iii) Nifedipine

**Q.5: A) Define antineoplastic agents? Classify the antineoplastic agents and discuss any one of them in detail.**

[06]

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

[06]

- i) Zalcitabine
- ii) Acyclovir
- iii) Melphalan

**OR**

**B) Discuss antiviral agents with classification according to mechanism of action. Also explain the life cycle of virus.**

[06]

**Q.6: A) What are antibiotics? Give their classification. Explain the mode of action of Penicillin drug.**

[06]

**OR**

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

[06]

- i) Norfloxacin
- ii) Amoxicillin
- iii) Cefuroxime

**B) Answer the following questions.**

[06]

- i) Write a note on Prodrug
- ii) Explain the methods which can be used for lead identification.

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