

SARDAR PATEL UNIVERSITY
M. Sc. Pharmaceutical Chemistry (Semester-II) Examination
Tuesday, 26/03/2019; Time-10:00 AM to 01:00 PM
SUBJECT CODE: PS02EPCH21
SUBJECT TITLE: Chemistry of Natural Product II

Note: (i) All questions are to be attempted. (ii) Figures to the right indicate marks.

Q.1 Choose the correct option for the following : **8x1=08**

- (i) Having heterocyclic nitrogenous base but not known as alkaloid:
 (a) Colchicine (b) Thiamine (c) Both (d) None
- (ii) The molecular composition of reserpine is:
 (a) $C_{30}H_{44}N_2O_{10}$ (b) $C_{33}H_{44}N_2$ (c) $C_{30}H_{44}O_{10}$ (d) $C_{33}H_{40}N_2O_9$
- (iii) Steroids are.
 (a) Lipids (b) Sulphonamides (c) Both (d) None
- (iv) Diosgenin is:
 (a) Alkaloid (b) steroidal sapogenin (c) Both (d) None
- (v) Which part of the amino acid gives it uniqueness?
 a) Amino group b) Carboxyl group (c) Side chain (d) None
- (vi) Peptide bond is a
 (a) Covalent bond (b) Ionic bond (c) Metallic bond (d) Hydrogen bond
- (vii) Taxines are
 (a) Diterpene (b) Steroid (c) Sapogenin (d) Alkaloid
- (viii) WHO recommended therapy for *P. falciparum* malaria is
 (a) Colchicine (b) Artemisinin Combination therapy (c) CPT analogues
 (d) None

Q.2 Answer the following : (attempt any Seven)

7x2=14

1. Give the general properties of alkaloids.
2. Write the uses of morphine
3. Write the general nomenclature of Alkaloids.
4. Draw the structure of Cholesterol.
5. Define sterol.
6. Describe the strategy to establish the tertiary structure of protein molecule
7. Give the uses of proteins.
8. Give the adverse effects of Artemisinins.
9. Explain the role of Glucuronic acid in disease

Q.3

- A. Describe the isolation of alkaloids. 06
 B. Show the location of side chain in morphine scaffold. 06

OR

- B Give the constitution of Reserpine acid. 06

Q.4

- A. Write the extraction of Diosgenin. 06
- B. Establish the position of double bond in cholesterol moiety. 06

OR

- B. Give a note on steroidal anti-inflammatory agents. 06

Q.5

- A. Describe the classification of proteins 06
- B. Write general principal of peptide synthesis. 06

OR

- B. What is the importance of removal of the protecting group in the poly peptide synthesis? 06

Q.6

- A. Write a note on Gingolides 06
- B. Give the treatment and prevention from taxane toxicity. 06

OR

- B. Give the SAR of camptothecin 06

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