

Sardar Patel University

M. Sc. – Pharmaceutical Chemistry (Semester-I) Examination

Saturday, 22nd October, 2016

10:00 a.m. to 01:00 p.m.

PS01CPCH01: Basic Physiology and Pharmacognosy

Total Marks: 70

- Notes: - 1) Figures to the right indicate marks.
2) Draw neat and labeled diagram, wherever necessary.

Q.1 Choose the Correct Answers of the Following. [08]

- Fibroblast cells are found in _____.
(a) Bones (b) Muscles (c) Nerves (d) Connective tissue
- One cardiac cycle completed by _____ sec.
(a) 0.3 (b) 0.4 (c) 0.8 (d) 0.6
- All of the following are organs of the digestive system except _____.
(a) spleen (b) liver (c) tongue (d) esophagus
- In Male the sex hormone that maintains sexual organs and secondary sex characteristics is _____.
(a) Progesterone (b) Estrogen (c) Testosterone (d) Relaxin
- _____ bark is utilized as heart tonic.
(a) Arjuna (b) Ashoka (c) Pipal (d) Catechu
- _____ is a biological source of catechu from *Acacia catechu*.
(a) Leaf (b) Root (c) Wood (d) Bark
- Vincristine and vinblastine are isolated from _____.
(a) *Catharanthus roseus* (b) Rose (c) Aloe vera (d) *Gymnema sylvestre*
- _____ compound is utilized as mitotic inhibitor.
(a) Chaulmoogra oil (b) Colchicine (c) Catechu (d) Guggul

Q.2 Answer the following in short. (Attempt Any Seven) [14]

- Narrate about Squamous epithelium tissue.
- Draw a labeled diagram of cardiac muscle tissue.
- Narrate about neurotransmitters and give their examples.
- Enlist the different functions of Urinary system.
- Give source and therapeutic application of Ashwagandha.
- What are the applications of Aloe gel?
- What is a significance of guggul in Ayurvedic formulations?
- Give the names of medicinal plants applied as diuretic and blood purifier.
- Which herb has application as brain tonic?

- Q.3 (A) Enlist the different part of brain and discus their functions. [06]
(B) Explain the structural features of aerolar and adipose connective tissue with suitable diagram. [06]
- OR**
- (B) Explain the steps involved in the blood clotting mechanisms. [06]
- Q.4 (A) Describe the regulation of gastric secretions. [06]
(B) Describe the structure of nephron with suitable diagram. [06]
- OR**
- (B) Enlist the different hormones synthesis by Adrenal gland and write their function in brief. [06]
- Q.5 (A) Explain cultivation, harvesting, application and chemistry of opium. [06]
(B) Give note on medicinal plants applied for bronchitis. [06]
- OR**
- (B) Give a note on botanical source, chemistry and application of Digitalis and Arjuna. [06]
- Q.6 (A) Narrate contribution of *Vinca rosa* in cancer. [06]
(B) Provide details of medicinal plants applied on diabetes. [06]
- OR**
- (B) Explain the botanical source, discovery, chemistry and application of Quinine. [06]

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 (2)