

29/11/14 B. Pharm 3rd Sem. (ASTV)

Total No. of printed pages = 7

PY 132307

Roll No. of candidate

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SCANNED

2014

B. Pharm 3rd Semester End-Term Examination

PHARMACOLOGY - III

Full Marks - 100 Pass Marks - 35 Time - Three hours

The figures in the margin indicate full marks for the questions.

1. Choice the correct answer : $10 \times 1 = 10$
- (i) The α and β stereo isomers of glycosides are assigned on the basis of
- (a) Aglycone component
 - (b) Glycone component
 - (c) Glycosidic linkage of glycone and aglycone
 - (d) None of the above.

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(ii) Digitalis leaves are dried at a temperature

(a) Below 60°C

(b) 60°C to 70°C

(c) Above 80°C

(d) According to climatic condition.

(iii) Which of the following drug do not contain cardiac glycoside ?

(a) Digitalis

(b) Strophanthus

(c) Psoralea

(d) Thevetia.

(iv) Dragendorff's reagent does not give a positive test with

(a) Emeline

(b) Morphine

(c) Codeine

(d) Caffeine.

(v) The optimum working temperature of enzymes lies between

(a) 10 to 20°C

(b) 20 to 25°C

(c) 35 to 50°C

(d) 60 to 70°C

(vi) Diastase enzyme can be isolated from

(a) *Bacillus subtilis*

(b) *Aspergillus oryzae*

(c) Human saliva and rat pancreas

(d) All of the above.

(vii) Papain shows its maximum activity between pH :

(a) 5 to 6

(b) 1 to 2

(c) 2 to 3

(d) 2.5 to 4.

(viii) The soft coral plexaura homomalla is the rich source of :

- (a) Anticoagulants
- (b) Antiparasitic
- (c) Cytotoxic
- (d) Prostaglandins.

(ix) Opium alkaloids are synthesized via

- (a) The shikimic acid pathway
- (b) The acetate pathway
- (c) Mevalonate pathway
- (d) Any one of the above pathway.

(x) Snake-bite remedy is obtained from

- (a) Aloe
- (b) Senega
- (c) Saffron
- (d) Squill.

2. Answer the following questions : $10 \times 2 = 20$

(i) Cardiac glycosides are called steroid glycoside. Why ?

(ii) Mention the various aglycone moieties present in Anthraquinone glycosides.

- (iii) Urginea and Scilla are the synonyms of and respectively.
- (iv) What are Sapogenins and Sapotoxins?
- (v) Write the uses of Psoralea.
- (vi) Define Coenzyme and Holoenzyme.
- (vii) Mention the biological source of Pancreatin.
- (viii) Name a few compounds synthesized in shikimic acid pathways.
- (ix) Name one indole alkaloid and mention the biological source of that alkaloid containing plant.
- (x) Write the biological source and uses of saffron.

3. Answer the following questions : $10 \times 3 = 30$

- (i) Describe the morphology and therapeutic uses of cascara bark. 3
- (ii) Discuss the cultivation and collection of Ginseng. $1\frac{1}{2} \times 2 = 3$
- (iii) Enumerate the chemical tests for Anthracene glycosides. 3

- (iv) What are the chemical constituents present in *Strophanthus* seeds ? 3
- (v) Write the biological source and uses of Liquorice. 2+1=3
- (vi) Describe the microscopic characters of Gentian. 3
- (vii) Define Intracellular enzymes and Extracellular enzymes with suitable examples. $1\frac{1}{2} \times 2 = 3$
- (viii) State the biological source and uses of Trypsin. 2+1=3
- (ix) Mention three aromatic amino acids and name biosynthetic pathway. 2+1=3
- (x) Write the biological source, chemical tests and uses of *Dioscorea*. $3 \times 1 = 3$
4. (i) Describe the cultivation, collection and uses of Foxglove leaves. 1+2+1=4
- (ii) Write the biological source, chemical constituents and uses of Chirata. 1+2+1=4
- (iii) Enumerate the chemical constituents, chemical tests and utilization of Senna. 2+1+1=4

- (iv) Write a brief introduction of the poisonous plants obtained in India. 4
- (v) Mention the biological source, preparation and application of Papain. $1+2+1=4$
- 5 (i) Discuss briefly about the novel medicinal compounds obtained from fauna and flora of marine sources. 5
- (ii) Enumerate the various general biosynthetic pathways for the formation of different secondary metabolites in plants. 5
- (iii) What is the significance of phytochemical screening in the field of Pharmacognosy ? Write the general method of isolation of glycosides. $2+3=5$
- (iv) Discuss about the adulterants of Digitalis, Senna, Squill, Rhubarb and Aloes. $5 \times 1 = 5$