

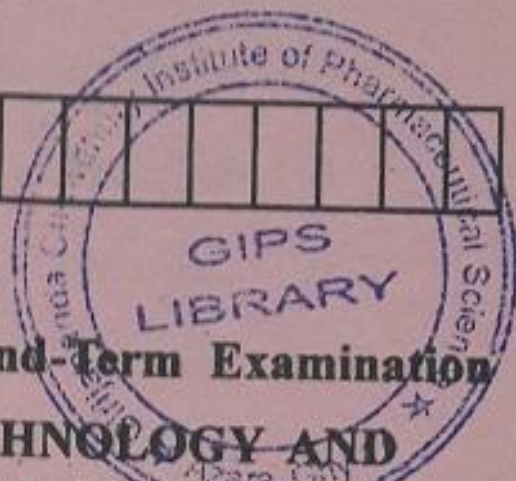
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2016



**B. Pharm 7th Semester End-Term Examination**

**HERBAL DRUG TECHNOLOGY AND  
PHARMACOLOGICAL SCREENING**

**(Elective-III)**

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

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

Questions for 2 marks.                      2×15=30

1. Write the meaning of  $R_f$  value. 2
  
2. (i) Hager's reagent is
  - (a) Mercuric iodide solution
  - (b) Potassium bismuth iodide solution
  - (c) Saturated solution of picric acid
  - (d) Potassium tri-iodide solution

[Turn over

(ii) Fiehe's test is for

(a) Artificial invert sugar

(b) Alkaloid

(c) Glycoside

(d) Tannin

1+1=2

3. (i) Safety, effectiveness and reliability is concerned with

(a) good manufacturing practice

(b) quality control

(c) quality assurance

(d) Structure activity relationship

(ii) The component to be analyzed by gas chromatography should be

(a) Non-volatile

(b) Volatile

(c) Non-volatile and thermostable

(d) Volatile and thermostable.

1+1=2



4. Full form of SOD and ROS are \_\_\_\_\_ and \_\_\_\_\_ 2
5. Inflammation in rats is induced by \_\_\_\_\_ in the dose of \_\_\_\_\_. 2
6. (i) Less time consuming toxicity test is
- (a) Chronic toxicity test
  - (b) Subacute toxicity test
  - (c) Acute toxicity test
  - (d) Special toxicity test.
- (ii) The gummy nature of *Astragalus gummifer* is dependent on —
- (a) More of methoxy group of bassorin
  - (b) The carbohydrate content
  - (c) More of sugar groups of the sugar moiety
  - (d) More of the protein content of the drug. 1+1=2
7. Diabetes may be induced either by using \_\_\_\_\_ or \_\_\_\_\_. 1+1=2
8. Full form of SGPT and SGOT are \_\_\_\_\_ and \_\_\_\_\_. 1+1=2
9. Carrageenan chemically is \_\_\_\_\_ obtained from \_\_\_\_\_. 1+1=2

10. Oxytocin is a hypothalamic polypeptide hormone released into the pituitary gland. True / False.

2

11. (i) Heparin belongs to —

- (a) Protein                      (b) Lipids  
(c) Carbohydrates              (d) None of the above.

(ii) Which of the alkaloids are liquid and volatile in nature ?

- (a) Nicotine and Coniine  
(b) Morphine and Papaverine  
(c) Atropine and Quinine  
(d) Reserpine and Ajamaline.                      1+1=2

12. Insulin a protein hormone produced by the  $\alpha$ -cells of the islets of Langerhans. True/False.

2

13. (i) Water distillation method is employed for extraction of volatile oils from those drugs whose constituents —

- (a) degrade at 50°C  
(b) degrade at 35°C  
(c) do not degrade upto 100°C  
(d) None of the above.



(ii) The water-soluble portion of the tragacanth is known as \_\_\_\_\_.  $1+1=2$

14. Growth hormone releasing factor stimulates the release of \_\_\_\_\_ from the \_\_\_\_\_ gland.  $1+1=2$

15. (i) The enfleurage process is used for the extraction of:

(a) Essential oil

(b) Resins

(c) Glycosides

(d) Fixed oil

(ii) Unit of volatile oil is known as \_\_\_\_\_.  $1+1=2$

Questions for 5 marks.  $5 \times 8 = 40$

16. Describe briefly phytochemical screening with its significance.  $3+2=5$

17. Enumerate the principles required for herbal formulations and cosmetics.  $2\frac{1}{2} \times 2 = 5$

18. Write the significance of toxicity study. What are the advantages of subacute toxicity test?  $2\frac{1}{2} \times 2 = 5$

19. Discuss the utility of ash content. How ash value of crude drugs is determined ?  $2+3=5$
20. What are the parameters used to assess liver toxicity ? How liver toxicity is induced in albino rats ?  $2+3=5$
21. Define bioassay. State the different methods of bioassay.  $2+3=5$
22. How is the plant extract evaluated for its anti-inflammatory property in animal model ? 5
23. What is supercritical fluid extraction ? Explain with suitable example. 5

Questions for 10 marks.  $3 \times 10 = 30$

24. How the safety margins of herbal drugs is maintained as per WHO guidelines ? Mention the WHO guidelines for general limits of contaminants in herbal drugs.  $6+4=10$
25. What do you mean by Pharmacological screening of herbal drugs ? Describe the various methods for the evaluation of antioxidant properties of plant extracts.  $2+8=10$
26. Describe the general methods of extraction and isolation of plant constituents from crude drugs. Write briefly the protocol of bioassay of oxytocin.  $6+4=10$



Or,

27. Write short notes on any *two* of the following :

- (i) Bioassay of Digitalis
- (ii) Bioassay of Heparin
- (iii) Screening of CNS drug.