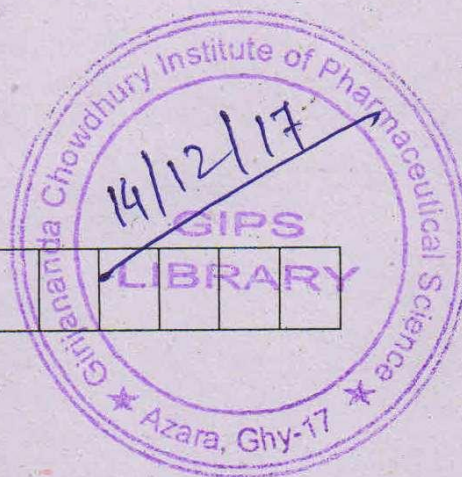


Total No. of printed pages = 4

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**2017**

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

**HERBAL DRUG TECHNOLOGY AND  
PHARMACOLOGICAL SCREENING**

**(Elective)-3**

Full Marks – 100

Time – Three hours

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

Answer question No. 1 and any *six* questions from the rest

1. Answer all questions: (10 × 1 = 10)

(a) \_\_\_\_\_ are the structural units of  
volatile oils

(b) Mayers' reagent is

(i) Potassium mercuric iodide solution

(ii) Potassium bismuth iodide solution

(iii) Picric acid solution

(iv) Iodine-potassium iodide solution

**[Turn over**

- (c) Baudouins' test is for
- (i) Artificial invert sugar
  - (ii) Alkaloid
  - (iii) Sesame oil
  - (iv) Glycoside
- (d) In WHO guidelines for the herbal drugs, contaminants include
- (i) Sand
  - (ii) Ash
  - (iii) Waste materials
  - (iv) Pesticide residues
- (e) Full form of DPPH
- (f) \_\_\_\_\_ is the enzyme present in acacia gum.
- (g) \_\_\_\_\_ alkaloids are isolated by steam distillation.
- (i) Nicotine & coniine
  - (ii) Morphine & papaverine
  - (iii) Reserpine & nicotine
  - (iv) Ajmaline & coniine
- (h) Gel permeation chromatography is also called as \_\_\_\_\_

- (i) What is the standard used in bio- assay of ERGOT alkaloids
- (i) Insulin                      (ii) Heparin  
(iii) Estrogen                  (iv) Oxitocin.
- (j) Agarose is used as a stationary phase in which type of chromatography
- (i) Column                      (ii) Gel permiation  
(iii) HPTLC                    (iv) T.L.C.
2. Write about various types of free radicals & different methods for evaluation of free radical scavenging property of phytochemicals. (2 × 7.5 = 15)
3. Write in detail about instrumental methods used for screening of phytochemicals. (15)
4. Write biological screening of (3 × 5 = 15)
- (a) Hepatoprotective activity  
(b) Antidabetic activity  
(c) C.N.S. activity
5. Write bioassay of (3 × 5 = 15)
- (a) Oxitocin  
(b) Insulin  
(c) Heparin
6. Write about various toxicity studies with their significance. (15)

7. Write about the screening techniques for (3 × 5 = 15)
- (a) Anti-inflammatory activity
  - (b) Anti hypertensive activity
  - (c) Anti ulcer activity
8. Answer the following questions
- (a) Write about various methods of extraction of volatile oils. (5)
  - (b) Enumerate the importance of ash & extractive values. (2 × 2.5 = 5)
  - (c) Write a note on gel permeation chromatography & RIA (2 × 2.5 = 5)
9. Answer the following questions
- (a) Enumerate the principles required for herbal formulations and cosmetics. (5)
  - (b) What are safety margins of herbal drugs maintained according to WHO? (5)
  - (c) Write a note on alternatives to animal experiments. (5)
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