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2020

B.Pharm. 4th Semester End-Term Examination

PHARMACOGNOSY AND PHYTOCHEMISTRY - I

Full Marks - 75

Time - Three hours

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

1. Choose the correct answer from the following. (20 × 1 = 20)
- (i) Who coin the term "Pharmacognosy"?
- (a) Galen (b) Seydler
(c) Hahnemann (d) Hippocrate
- (ii) The term "Gignosco" refers to
- (a) A treatment (b) To acquire the knowledge of
(c) A drug (d) Study of
- (iii) Guard cells are covered with three subsidiary cells known as
- (a) Anisocytic stomata (b) Anomocytic stomata
(c) Diacytic stomata (d) Actinocytic
- (iv) Dicotyledonous plant means
- (a) The flowering plant whose seed typically has one embryo leaves
(b) The flowering plant whose seed typically has two embryo leaves
(c) The flowering plant whose fruit typically has one seeds
(d) Non vascular plants
- (v) Ash value of crude drug is evaluated to determine
- (a) Phytoconstituents present in crude drug
(b) Organic substance present in crude drug
(c) Inorganic substance present in crude drug
(d) Mucilage present in crude drug

[Turn over

- (vi) B.O.D full form _____.
- (vii) Water holding capacity of the soil is increased due to presence of
- | | |
|------------|-----------------|
| (a) Azolla | (b) Azatobactor |
| (c) Humus | (d) Nitrogen |
- (viii) Following which hormone is gaseous in nature
- | | |
|---------------|-----------------|
| (a) Auxin | (b) Gibberellin |
| (c) Cytokinin | (d) Ethylene |
- (ix) Swelling factor of crude drug is evaluated to determine
- | |
|---|
| (a) Tannin present in crude drug |
| (b) Inorganic substance present in crude drug |
| (c) Mucilage present in crude drug |
| (d) Fatty material present in drug |
- (x) Astringent refer to
- | | |
|---------------------------|------------------------------|
| (a) Protein precipitation | (b) Expel gases from stomach |
| (c) Treat cough | (d) Blood purifier |
- (xi) Following any one is the synthetic auxin
- | | |
|------------------------|-------------------------------------|
| (a) Zeatin | (b) Kinetin |
| (c) Indole acetic acid | (d) 2,4-Dichloro phenoxyacetic acid |
- (xii) Salkowski reaction is used to detect
- | | |
|------------------|--------------|
| (a) Steroid | (b) Tannin |
| (c) Carbohydrate | (d) Alkaloid |
- (xiii) _____ is used as surface sterilizing agent in plant tissue culture.
- | | |
|-------------------------|---------------------------|
| (a) Sodium hypochlorite | (b) Indole 3-acetonitrile |
| (c) NaCl | (d) NaOH |
- (xiv) _____ is carbon source used in tissue culture technique.
- | | |
|--------------|---------------|
| (a) Glucose | (b) Fructose |
| (c) Dextrose | (d) Galactose |
- (xv) Father of Homeopathy medicine
- | | |
|----------------------|----------------|
| (a) Samuel Hahnemann | (b) Discordias |
| (c) George Bentham | (d) Seydler |

(xvi) Milk contain _____

- (a) Casein
- (b) Bromelain
- (c) Pepsin
- (d) Urokinase

(xvii) Wool fat is a extract obtain from

- (a) Plant source
- (b) Animal source
- (c) Mineral source
- (d) Synthetic source

(xviii) Family of acacia _____

- (a) Rubiaceae
- (b) Asteraceae
- (c) Leguminosae
- (d) Myrtaceae

(xix) Castor oil is use to induce _____ in rat.

- (a) Hypertension
- (b) Cancer
- (c) Diabetes
- (d) Diarrhoea

(xx) Shinoda test used to detect

- (a) Flavonoid
- (b) Glycoside
- (c) Alkaloid
- (d) Protein

2. Answer any *seven* questions : (7 × 5 = 35)

- (a) Differentiate between :
 - (i) Organized and unorganized drugs.
 - (ii) Morphological and microscopical evaluation of a crude drug.
- (b) Mention the advantages of vegetative propagation method for the cultivation of medicinal plants. Define the terms Latex, Oleo gum resin and oleo-resin. (2 + 3)
- (c) Classify stomata with diagram. Discuss the functional difference of stomata and trichomes. (3 + 2)
- (d) Write down the general properties of enzyme. Write down the source and uses of papain and bromelain. (2 + 3)
- (e) Write down the differences between adulterant and substitutes. Write down the significance of determination of extractives value and moisture content of crude drug. (2 + 3)
- (f) Define and classify alkaloid. Discuss the properties of tannin and volatile oil. (3 + 2)
- (g) Enlist some natural sources known as natural allergens and hallucinogens. Name the water soluble and insoluble part of tragacanth. (1.5 + 1.5 + 2)

- (h) Discuss details on preparation of culture media used for Plant Tissue Culture. (5)
- (i) Explain in details types of pest control techniques applicable during cultivation of medicinal plants. (5)

3. Answer any *two* from the following : (2 × 10 = 20)

- (a) Write short note on Ayurveda-Indian System and Chinese systems of medicine. (5 + 5)
- (b) Discuss on some novel medicinal agents from marine sources along with therapeutic effect. (10)
- (c) Define Explant. Enumerate the different types of tissue culture. Discuss a neat diagram and the detailed procedure for the culturing of protoplast. (1 + 2 + 7)
- (d) How do you explain standardization of crude drugs? Discuss details on plant growth regulator with its application. (3 + 7)
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