

(iii) Dicotyledonous plant means

- (a) The flowering plant whose seed typically has two embryo leaves.
- (b) The non-flowering plant whose seed typically has two embryo leaves.
- (c) The flowering plant whose fruit typically has two seeds.
- (d) Non-vascular plants.

(iv) Diacytic stomata present in

- (a) Senna
- (b) Vasaka
- (c) Datura
- (d) Digitalis

(v) Examples of Miticides (Acaricides) are

- (a) Chlorobenzoate and Tetradifon
- (b) DDT and Gammaxine
- (c) Warfarin and Strychine
- (d) Chlorophenol and antibiotics.

(vi) Bryophytes belong to

- (a) Non-vascular plants
- (b) Non-flowering plants
- (c) Vascular plants
- (d) Plant contains secondary phloem.

(vii) Wool fat is an extract obtained from

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

(viii) Fats and oils are

- (a) Ester of glycol and sulphuric acid
- (b) Ester of glycol and various straight chained mono-carboxylic acids
- (c) Ester of glycol and various straight chained dicarboxylic acids
- (d) Ester of glycol and various straight chained tricarboxylic acids.

(ix) Number of isoprene unit present in monoterpenes

- (a) one (b) two
(c) three (d) four

(x) Soap stone is the synonym of

- (a) Talc (b) Kaolin
(c) Bentonite (d) Diatomite

(xi) Water holding capacity of the soil is increased due to presence of

- (a) Azolla (b) Azatobactor
(c) Humus (d) Nitrogen

(xii) A protein isolated from milk is known as

- (a) Keratin (b) Alanine
(c) Cystine (d) Casein.

2. Answer the following questions :

A. Define the terms : (any *five*) $2 \times 5 = 10$

- (i) Soil fertility
- (ii) Organic farming
- (iii) Volatile oil
- (iv) Pharmaceutical aid
- (v) Trichomes
- (vi) Latex.

B. Fill in the blanks : (any *five*) $2 \times 5 = 10$

- (i) Maltose on hydrolysis gives and
- (ii) Silk fibre obtained from cocoons of and belonging to the family of
- (iii) Give examples of any two of synthetic auxin and..... .
- (iv) Name two plant sources use as purgative and
- (v) Nylon is the condensation product of and
- (vi) Main chemical constituents of cod liver oils are and

3. Answer any *ten* of the following questions :

3×10=30

- (a) Differentiate between cellular and acellular drugs.
- (b) Define and classify fibres with examples.
- (c) Write down the functions of natural and synthetic cytokinin.
- (d) Mention the advantages of vegetative propagation method for the cultivation of medicinal plants.
- (e) Explain the specific reason of using tray dryer for the drying of some crude drugs. Give examples of such crude drugs.
- (f) Write down the biological source, preparation and chemical constituents of wool fibre.
- (g) What do you mean by vein islet number and vein termination number ? Explain with label diagram.
- (h) Define and classify tannin with suitable examples.
- (i) Write short note on steroid glycoside.
- (j) "Crude drugs should be preserved in well closed container." Give the reason.

(k) Differentiate between morphological and microscopical evaluation of a crude drug.

(l) Write down the pharmacognosy of honey.

4. Answer any *five* from the following questions :

5×4=20

(a) Give the biological source, chemical constituents and uses of the following drugs :

Bees wax, Pectin, Tragacanth, Shark liver oil.

(b) Define and classify stomata with neat diagram.

(c) Discuss the general properties and uses of fixed oil.

(d) Define the terms with examples : Tuber, Sucker, Stolon, Runner.

(e) Describe the pharmacognostic study of gum acacia and gelatin.

(f) Give examples (at least three of each) of some crude drugs contain following chemical constituents : Alkaloid, Anthraquinone glycoside, Terpene, Resin.

- (g) Highlight the names of some of the primary and secondary nutrient elements responsible for the growth and development of plants. What do you mean by biofertilizer ? Give two examples of biofertilizer.

5. Answer any *four* of the following questions :

4×5=20

- (a) Discuss the history and development of pharmacognosy.
- (b) Write short notes on Polyploidy and hybridization.
- (c) Discuss the factors influencing the cultivation of medicinal plants.
- (d) What is pest ? Discuss the biological methods of pest control.
- (e) How do you classify crude drugs on the basis of pharmacological classification system ?
- (f) Write short note on natural colours.