

Q.P. Code : 03573

[Time: 3 Hours]

[Marks:70]

Please check whether you have got the right question paper.

- N.B:
1. All questions are **compulsory**.
 2. **Illustrate** answers with **sketches and structures** wherever required.
 3. **Answers to sub questions** must be **written together**.

1. (a) State **True or False** and justify all the following statements with suitable examples:- **7**
 - i) Papain is an example of an organized crude drug.
 - ii) Gibberlins are plant growth inhibitors.
 - iii) *Digitalis purpurea* has entire leaf margin.
 - iv) Chloral hydrate is used as a mountant in microscopic preparations.
 - v) Coumarins are biosynthesized via acetate mevalonate pathway
 - vi) Ferric chloride reagent is used for identification of tannins
 - vii) Xanthan gum is obtained by process of gummosis
- (b) Answer the following:- **8**
 - i) Write any two examples of alkaloidal class of phytoconstituents with relevant chemical structures and therapeutic applications
 - ii) Write a note on any one regenerated fibre.
 - iii) Give a brief account of ricin
 - iv) With the help of suitable examples differentiate between endospermic and nonendospermic seeds.
2.
 - i) Compare and contrast alphabetical and morphological methods of classification of crude drugs. **4**
 - ii) Illustrate with suitable labelled diagrams, the salient historical features of dorsiventral and isobilateral leaves. **4**
 - iii) Give source and commercial utility of inulin and malt. **3**
3.
 - i) State the principle of counter current extraction with applications. **4**
 - ii) Write source, preparation, chemistry and commercial utility for absorbent and nonabsorbent cotton. **4**
 - iii) Highlight the significance of aflatoxins and pesticide residues evaluation as per WHO guidelines **3**
4.
 - i) Write in detail about exogenous and endogenous factors affecting quality of crude drugs. **4**
 - ii) Outline the general methods of extraction of glycosides and tannins **4**
 - iii) Explain the scope of pharmacognosy in traditional and complementary systems of medicine. **3**

[Turn Over]

5. i) Write in detail about modifications of stem. 4
ii) Give pharmacognostic account of agar 4
iii) With the help of suitable examples, differentiate between adulteration and substitution of crude drugs. 3
6. i) Outline the biosynthetic pathway of alkaloid precursor molecules, with structures. 4
ii) Give Sources, preparation and uses of thyroid hormones and pepsin 4
iii) Write a note on preparation of crude drugs 3
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