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 exmaples 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 guideliness **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**