

Q.P. Code : 04551 ,
[Time: 3 Hours]

Pharmacognosy -I
[Marks:80]

Q. 1 (a) State whether True/False and justify all the following statements, giving suitable examples:- 8

- i) Acacia is an example of mineral origin crude drug. – False , give suitable eg of mineral origin drug or write source of acacia.
- ii) Glycerol is used as a clearing agent in microscopic examinations.- False. give suitable eg of clearing agent or write use of glycerin
- iii) Starch grains are produced in mitochondria. – . False . Explain how starch is produced during photosynthesis and stored in amyloplast.
- iv) Saponification test is used to differentiate between fixed and volatile oils. –True. Describe saponification test for fixed oils and why it cannot be used for volatile oils
- v) Coppicing method is used for collection of root-based crude drugs. – False. Describe coppicing method of collection of barks
- vi) Cotton is a sclerenchymatous fibre. – False. Cotton is cellulosic or Jute, Flax and Hemp is sclerenchymatous. Write the biological source in both cases
- vii) Guar gum is a pathological product. – False. Write the source of guar gum
- viii) Abrin is used for protein digestion. –abrin inhibits protein synthesis

(b) Answer the following :-

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- i) merits -1M
demerits of taxonomical method of classification of crude drugs. -1M
- ii) Any two reagents and use in examination of seed-based drugs. –2M
- iii) 2 points of difference with suitable examples. . –2M
- iv) Basic structure, uses and test of coumarins with any one example - 2M
- v) two examples of natural pest control agents, with their biological source. Each 1M
- vi) Source, preparation, chemical composition and use of kieselghur - 2M

Q. 2 4Marks each question

- i) status and significance of pharmacognosy in Ayurveda and aroma therapy. – 2M each (4)
- ii) salient histological features of a typical leaf based drug. With neat labelled diagram . differentiate diagrammatically isobilateral and dorsiventral leaf (4)
- iii) What are oils (1M) Give the source, preparation, constituents and uses of castor oil. (3M)

Q. 3 : 4Marks each question

- i) Classification of fruits with examples - 4 M
- ii) complete classification of tannins with suitable examples, chemical tests and their applications. - 4 M
- iii) gum of microbial origin- Xanthum gum or Dextran : Source, Chemistry, Preparation and uses 4M

Q. 4: 4Marks each question

- i) Give one example, important biological activity and basic chemical nucleus for :
 - a) Purine or pyridine-piperidine type alkaloids - one example, important biological activity -1M ,
basic chemical nucleus -1M
 - b) Anthquinone or cyanogenetic glycosides. – same as above
- ii) factors affecting cultivation of crude drugs. – any 4 factors with example (1M each)
- iii) source, preparation and uses of 'bromelain' and 'casein'. (2M for bromelain and 2 M for casein)

Q. 5 : 4Marks each question

- i) With suitable examples, give complete chemical classification of triterpenoids. (correction sent – write a note on steroids and triterpenoids) Example, basic nucleus, chemical test and use. (2M for steroids and 2M for triterpenoids)
- 4 ii) note on any one protein fibre. (Silk or Wool) – source, preparation, chemical composition, test and uses
- iii) biological source, chemical constituents and uses of 'Shatavari' and 'Kalmegh'. (2M each)

Q. 6 : 4Marks each question

- i) unorganized drugs.-like - Dried latex, dried juice, dried extract , gums , mucilage. – What is unorganised drug and explain with examples the above
- ii) a) source and uses of serratiopeptidase (2M)
- b) source, constituents and uses of amla. (2M)
- iii) pharmacognostic account of any two oils of animal origin. – some eg are Cod liveroil, shark liver oil (2M each)