1. **Answer any **EIGHT** of the following:**

   a) Define pharmacognosy. When and who coined the term pharmacognosy?

   b) Name the drug which contain:
      (i) Bassorin
      (ii) Harmine
      (iii) Fenchone
      (iv) Reserpine

   c) Mention a crude drug for which each of the following synonym is applicable:
      (i) Mel
      (ii) Oleum selachoids
      (iii) yam
      (iv) Cera flava

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d) Name a crude drug to which each of following chemical test is applicable:
   (i) Klunge’s test
   (ii) Fiche’s test
   (iii) Vitali-Morin test
   (iv) Keller-Killiani test

e) Mention which part of the plant is useful as a drug in case of:
   (i) Gymnema
   (ii) Nutmeg
   (iii) Liquorice
   (iv) Black pepper

f) For identification of which crude drugs swelling factor is determined. Describe how will you determine it?

g) Write chemical tests for ergot.

h) Describe method of preparation of cotton.

i) What are balsams? Name balsams used in pharmacy.

j) What do you know about ‘Ayurveda’ as traditional Indian system of medicines?

2. **Answer any FOUR of the following:**

   a) Give two examples of crude drugs from family:
      (i) Burseraceae
      (ii) Apocyanaceae
      (iii) Scrophulariaceae

   b) Define evaluation of crude drugs. Describe any two microscopical methods of drug evaluation.

   c) What are surgical dressing? Give the ideal requirements of surgical dressings.

   d) Define and classify pharmaceutical aids with examples.
e) Differentiate between organised and unorganised crude drugs with examples.

f) Define perfumes and falvouring agents. Give biological source and chemical constituents of any one:
   (i) Peppermint oil
   (ii) Lemon grass oil

3. **Answer any FOUR of the following:**


   b) (i) What are enzymes? Give biological source of diastase.
        (ii) Define tannins. Write chemical test for tannins.

   c) Describe pharmacological method of classification with its merits and demerits.

   d) Draw a well labelled cellular diagram of T.S. of bark used as antimalarial. Describe any two microscopic characters.

   e) Describe method of collection and preparation of digitalis for market.

   f) Write biological source, chemical constituents and uses of garlic.

4. **Answer any FOUR of the following:**

   a) How will you differentiate:
      (i) Plant fibres and animal fibres
      (ii) Leaf and leaflet

   b) Define antiseptic. Give biological source, chemical constituents of benzoin.

   c) Write biological source and use of:
      (i) Neem
      (ii) Shatavari

   d) Define sutures and ligatures. Write ideal requirements of sutures.

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e) Explain the significance of following in evaluation of crude drugs with suitable examples:
   (i) Alcohol soluble extractives
   (ii) Optical rotation

f) Define resin and resin combinations. Classify it with suitable examples.

5. **Answer any FOUR of the following:**
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   a) Define and classify alkaloids with examples of crude drugs.
   b) Write the morphological characters of Ipecac along with diagram.
   c) Define adulteration. Give various methods of adulteration with suitable examples.
   d) Which umbelliferous fruit mainly contains a chemical constituent linalol? Write its morphological characters with diagram.
   e) Define with examples of crude drugs (any three):
      (i) Oxytocics
      (ii) Astringents
      (iii) Carminatives
      (iv) Antitumour
   f) Define diuretics. Write biological source, chemical constituents of punernava.

6. **Write chemical tests of crude drugs (any FOUR):**
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   a) Nux vomica
   b) Turmeric
   c) Shark liver oil
   d) Datura
   e) Wool
   c) Acacia