

**PARUL UNIVERSITY**  
**FACULTY OF PHARMACY**  
**B.Pharm. Winter 2019-20 Examination**

**Semester: 7****Subject Code: 08101406****Subject Name: Herbal Drug Technology****Date: 29/11/2019****Time: 10:00 am to 1:00 pm****Total Marks: 75****Instructions:**

1. Figures to the right indicate full marks.
2. Make suitable assumptions wherever necessary.

**Q.1 Essay type Questions. (Any 2 out of 3) (10 marks each) (20)**

1. Define extraction. Enlist various methods for extraction. Explain conventional methods of extraction with well labeled diagram.
2. Describe biosynthetic pathway through which Amino acids are biosynthesized.
3. Define standardization. Explain standardization parameters of herbal drugs in detail as per WHO guideline.

**Q.2 Short Essay type Questions. (Any 7 out of 9) (5 marks each) (35)**

1. Mention natural sources for Sennosides. Describe a suitable method for isolation and estimation of Sennosides.
2. Write a detail note on different tracer techniques.
3. Describe HPTLC method in detail. Write its application in herbal drug evaluation.
4. Enlist modern methods for the extraction. Explain super critical fluid extraction method in detail.
5. Describe chemistry of Menthol.
6. Define and classify nutraceuticals. Explain Antioxidants in detail with examples.
7. Write a note on herbal cosmetics for hair care. Give examples of two herbs used in preparation of herbal Shampoo.
8. Give sources of Diosgenin. Describe different methods for isolation and estimation of diosgenin.
9. Write a detail note on Herbal cosmetics used for skin.

**Q.3 Answer in short. (2 marks each) (20)**

1. Give significance of Ash value in standardization of herbal drugs.
2. Mention natural sources and estimation for Atropine.
3. Define and classify chromatography.
4. Draw structure of Geraniol and Carvone.
5. What are Prebiotics?
6. Define and classify herbal cosmetics with examples.
7. Write molecular formula and draw structure of Quinine.
8. Classify Dietary fibres with examples.
9. Give examples of Probiotics.
10. Give uses of Sennoside and Menthol.