

**T.Y.B.PHARM. SEMESTER-VI (2011 Course) : SUMMER - 2019**

**SUBJECT-PHARMACOGONOSY –II**

Day : Wednesday

Time: 10.00 A.M. TO 01.00 P.M.

Date: 08/05/2019

Max. Marks.:-80

**S-2019-4454**

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N.B. 1) Q. No. 1 & 5 are **COMPULSORY**. Out of remaining attempt **ANY TWO** question from each section.

2) Answer to the **TWO** sections should be written in **SEPARATE** books.

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**SECTION – I**

- Q.1 Solve **ANY FIVE** (10)
- a. Write biological source of Cucumber.
  - b. Write different health effect of Onion.
  - c. Draw neat label diagram of percolation.
  - d. What is Supercritical Fluid Extraction
  - e. Explain Maceration.
  - f. Write different constituents present in Arnica.
  - g. Explain concept of Rf value.
- Q2 a Write in details successive solvent extraction. (08)
- b Explain in detail microwave extraction along with suitable diagram. (07)
- Q3 a Write in detail enflurage method along with suitable diagram. (08)
- b Draw neat well labeled diagram for Soxhlet apparatus and explain its working. (07)
- Q4 Write short note on **ANY THREE** (15)
- A TLC in herbal drug analysis.
  - B Column chromatography.
  - C Applications of supercritical fluid extraction in herbal drug extraction.
  - D HPTLC

**SECTION- II**

- Q5 Solve **ANY FIVE** (10)
- a Write formula for skin care preparation.
  - b Write different phases of growth curve
  - c What is micropropagation?
  - d Which are different types of cell culture?
  - e What is elicitation?
  - f Write WHO limit for pesticides in herbal drugs
  - g Give different growth parameters for Tissue culture.
- Q6 a Explain different nutritional requirements for *in-vitro* plant cell growth. (08)
- b Which are different strategies for enhancement of secondary metabolites in plants? (07)
- Q7 a Write in detail history of plant tissue culture organization of plant tissue culture laboratory (08)
- b Write WHO guidelines for standardization and quality control of herbal drugs. (07)
- Q8 Write short note on **ANY THREE** (15)
- a Formulation of herbal skin care products.
  - b Production and formulation of herbal hair care products.
  - c Quality control of herbal cosmetics.
  - d Regulatory affairs related to herbal drugs.
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