

**M.Sc. 3rd Semester Examination, 2018**

**BOTANY**

**Paper : BOT-302C(T)**

**Ethnobotany, Pharmacognosy and Tissue Culture**

**Course ID : 31352**

**Time: 2 Hours**

**Full Marks: 30**

*The figures in the margin indicate full marks.*

*Candidates are required to give their answers in their own words  
as far as practicable.*

**Group-A**

**(Ethnobotany, Pharmacognosy)**

1. Answer *any two* of the following: 1×2=2
  - (a) Define 'petro-plants'. Cite an example.
  - (b) What is alkaloid? Name one alkaloid derived from tyrosine.
  - (c) What is ethnobotany?
  - (d) What is pharmacognosy?
  
2. Answer *any one* of the following: 5×1=5
  - (a) Distinguish between drug and medicine. Prepare a brief account on processing of crude drugs for commercial purpose. 2+3=5
  - (b) Write a brief note on the uses of 'Mahua' by the tribal people of West Bengal. 5
  
3. Answer *any one* of the following: 8×1=8
  - (a) Give a brief account of pharmacological and chemical classification of crude drugs with proper examples. 4+4=8
  - (b) Write notes on: 4+4=8
    - (i) Ethnic uses of any one tuber crop
    - (ii) Ethnic uses of Dhutra

**Group-B**

**(Tissue Culture)**

4. Answer *any two* of the following: 1×2=2
  - (a) What is somaclonal variation?
  - (b) What is totipotency?
  - (c) What is cryopreservation?
  - (d) Write the full form of PEG.

- 5.** Answer *any one* from the following: 5×1=5
- (a) What is transgenic plant? Discuss the role of germplasm conservation in plant through tissue culture methods. 2+3=5
- (b) What is artificial seed? Describe the methods of artificial seed production. 2+3=5
- 6.** Answer *any one* of the following: 8×1=8
- (a) What is cell suspension culture? Write in brief about the application of plant cell and tissue culture for improvement of crops. 2+6=8
- (b) Define micropropagation. Write the sources of tissues and the methods of micropropagation. State the different stages applied in embryo culture technique. 2+2+4=8
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