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Total Number of Pages: 01

M.PHARM
M.PH2F.6

2nd Semester Regular Examination – 2016-17
ADVANCED PHARMACOGNOSY-II (Medicinal Plant Biotechnology)
BRANCH(S): Pharmacognosy
Time: 3 Hours
Max Marks: 70
Q.CODE: Z1206

Answer Question No.1 which is compulsory and any five from the rest.
The figures in the right hand margin indicate marks.

- Q1 Answer the following questions: (2x10)**
- a) How is Plant biotechnology useful in pharmaceutical sciences. Explain with few examples.
 - b) How are the methods of micro propagation utilized? Write in brief.
 - c) Write the advantages of protoplast culture.
 - d) Explain Embryogenesis and organogenesis.
 - e) Write on Cellular totipotency
 - f) Write on different matrices used in cell immobilization.
 - g) How do the growth regulators influence the growth of different organs in plant tissue culture?
 - h) What are the secondary metabolites synthesized through Mevalonic acid pathway?
 - i) Write the role of elicitors in plant tissue culture.
 - j) What is cryopreservation? Write the advantages of the methods.
- Q2 Write on techniques, types and requirements and growth of plant tissue culture. (10)**
- Q3 Write the biogenetic pathway to synthesize tropane alkaloids. (10)**
- Q4 Write on the methods used to select specific cell lines to produce high amounts of metabolites and their applications. (10)**
- Q5 a) Write on Isolation and fusion of protoplasts and write the uses. (5)**
b) What are the different techniques of Micro propagation and write their advantages. (5)
- Q6 a) Write the techniques used in elucidation of biosynthetic path ways in detail. (5)**
b) Describe the techniques used for measuring cell growth . (5)
- Q7 Write on immobilized cell systems giving polymers. . (10)**
- Q8 a) Explain Biotransformation? Write on Biotransformation carried out using plant cells (5)**
b) What are the factors affecting bio synthesis. (5)