

Exam Date & Time: 13-Jul-2022 (10:00 AM - 01:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

Manipal Academy of Higher Education, Manipal MPharm Theory End-Semester Examinations.

MEDICINAL PLANT BIOTECHNOLOGY [PCO-MPG201T-S1]

Marks: 75

Duration: 180 mins.

SECTION - A

Answer all the questions.

Answer the following (10 marks x 5 = 50 marks)

- 1) Give a detailed account on Single cell protein. (10)
- 2) Explain techniques involved in production of secondary metabolites. Write a note on factor affecting production of secondary metabolites. (10)
- 3) Explain various techniques of Protoplast fusion. Add a note on practical applications of protoplast fusion. (10)
- 4) Explain the following (3+3+4=10M)
a) Vectors
b) Hosts for rDNA technology
c) Applications of biotechnology in pharmacy and allied fields. (10)
- 5) Discuss in detail various steps/procedure involved in PCR. List out various applications of the same. (10)

SECTION - B

Answer all the questions.

Answer the following (5 marks x 5 = 25 marks)

- 6) What is Biotransformation? Explain the procedure for carrying out Biotransformation. (5)
- 7) Write a brief note on Synthetic seed. (5)
- 8) Give the source, method of preparation and uses of Urokinase and Diastase. (5)
- 9) Define and discuss various types of cloning. (5)
- 10) Give the applications of Hairy root culture. (5)

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