



Rajiv Gandhi University of Health Sciences, Karnataka

First Year M. Pharm Degree Examination – MAY 2016

Time: Three Hours

Max. Marks: 100 Marks

MEDICINAL PLANT CULTIVATION AND BIOTECHNOLOGY

(Revised scheme 4)

Q.P. CODE: 9386

Your answers should be specific to the questions asked.

Draw neat labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two)

2 x 20 = 40 Marks

1. Explain the technology for commercial scale cultivation of Ashwagandha and Lemon grass.
2. Explain the strategies including culture condition, use of precursors and elicitors, immobilization and hairy root culture for enhancement of secondary metabolites in plant tissue culture.
3. What are transgenic plants? How do you prepare them? What are the approaches for production of Insect, fungus, virus and herbicide resistance plants?

SHORT ESSAYS (Answer any FIVE)

5 x 10 = 50 Marks

4. Explain the role of mutation and polyploidy in improving the quality of medicinal plants with examples.
5. What are RFLP and RAPD? Explain their applications in authentication and detection of adulterants.
6. Explain the isolation and purification of enzymes from different sources.
7. Write notes on: plant chromosome analysis and bioinformatics.
8. Give details on current status of national and international trade in medicinal plants.
9. *In-vitro* conservation and cryopreservation are useful in germplasm conservation. Explain the significance of the statement. Give details of the different techniques.

SHORT NOTES

2 x 5 = 10 Marks

10. Explain the use of bioreactors in plant cell culture with examples.
11. Explain the production and uses of Papain.
