Rajiv Gandhi University of Health Sciences

First Year M. Pharm Degree Examination - JAN-2019

[Time: 3 Hours] [Max. Marks: 100]

Molecular Biology

(Revised Scheme 4)

Q.P. CODE: 9351

Your answers should be specific to the questions asked.
Draw neat, labeled diagrams wherever necessary. Answer any ten questions.

LONG ESSAY (Answer any TEN) **10 X 10 = 100 Marks**

1. Explain the principle and basic components of a biosensor and write any four applications.
2. Explain the principle and process of maintenance of adult stem cells.
3. Discuss the media requirements for the growth of cell lines. Write the special features of stem cells.
4. Explain intrinsic and extrinsic pathways of apoptosis. Add a note on regulation of apoptosis.
5. Explain the basic technique and applications of microarray.
6. Write short notes on restriction digestion enzymes and cloning vectors.
7. Define and explain the process of Ligation Chain Reaction and mention three applications.
8. What DNA sequencing? Explain various methods of DNA sequencing.
9. What is protein engineering? Explain its application in drug discovery.
10. Discuss the principle and applications of MTT assay and immunofluorescence.
11. Explain the process of elucidation of genetic code.
12. Explain DNA based diagnosis of two diseases.

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