



DO-M-2011127

Seat No. _____

M. Pharm. (Sem. II) (CBCS) Examination

April / May – 2015

Analysis of Recombinant Proteins & Diagnostics

(Elective - II)

Time : 3 Hours]

[Total Marks : 80

Instructions:

1. Answer and tie up both the sections separately.
2. Figure to the right indicates marks.
3. Answer three (03) questions from each section.
4. Question one (01) and question (05) are compulsory.
5. Draw neat and clean diagrams as required.

SECTION – 01

Q.-1 Write a note on following (any seven)

(7x 2=14)

- A. DNA
- B. RNA
- C. Proteins
- D. Primers
- E. DAN Polymerase
- F. Immunosensors
- G. Bioluminescence
- H. Chemiluminescence
- I. Probes
- J. dNTPs

Q.-2 What do you mean by PCR-RFLP? Describe in brief, how it is useful in paternity and forensic cases? **(13)**

Q.-3 How to diagnose sickle cell anemia with the use of molecular techniques? **(13)**

Q.-4 Answer the following questions

- A. Applications of Real-time PCR. **(7)**
- B. Primer design & optimization for PCR. **(6)**

SECTION – 02

Q.-5 Answer any two out of three

(7x 2=14)

- A. Explain, How SDS-PAGE technique use for separation of protein on the basis of subunit size?
- B. Describe the immunological techniques for Protein Purification?
- C. Describe quantitative amino acids analysis and write the principles of Folin-Lowry assay and UV spectroscopy?

Q.-6. Write a detail note on ICH guidelines.

(13)

Q.-7. Describe the following techniques involved in separation of proteins-

(13)

- 1. Iso electric focusing
- 2. Gel permeation chromatography
- 3. Ion-exchange chromatography
- 4. HPLC

Q.-8. Answer the following questions.

- A. What do you mean by polymorphism? Write a note on SNP detection.
- B. What are the advantages and disadvantages of using a molecular test?

(7)

(6)