

Exam.Code:5144
Sub. Code: 14332

2056
B.Sc. (Hons.) Bio-Informatics (FYUP)
Fourth Semester
BINF-403: Recombinant DNA Technology

Time allowed: 3 Hours

Max. Marks: 60

NOTE: Attempt five questions in all, including Question No. I which is compulsory and selecting two questions from each Unit.

x-x-x

I. Give answer in a very short:-

- a) Who is the father of recombinant molecules?
- b) Give names of two recombinant enzymes.
- c) Write the names of two Model organisms used in genetics.
- d) What is the BAC?
- e) Vector?
- f) What is the genome?
- g) Genomic library.
- h) Promoter
- i) PCR.
- j) What is Agarose gel?
- k) Taq polymerase.
- l) Write the names of two mutagenic agents.

(12x1)

UNIT - I

- II. a) Briefly describe the history of recombinant DNA technology.
b) Write a brief description of Restriction enzymes in genetic engineering. (2x6)
- III. a) Write about pBR322 plasmid and its applications.
b) Describe in brief about Cosmid. (2x6)
- IV. a) Briefly describe co-dominance with examples.
b) Write the main differences between YAC and BAC. (2x6)

P.T.O.



(2)

UNIT - II

- V. a) Explain about the genomic library.
b) Write a short note on cDNA library and its significance. (2x6)
- VI. a) Explained in brief about the cloning in plant science.
b) Mentioned the various applications of PCR. (2x6)
- VII. a) Write a short note on applications of Agarose of gel electrophoresis.
b) Write the working principle of PCR. (2x6)

x-x-x