Roll No. _____ [Total No. of Pages : 2

SVS 345 B-2K12

B.Sc. Vth Semester Degree Examination

Biotechnology Optional

Recombinant DNA Technology

Paper - 5.6

Time : 3 Hours Maximum Marks : 80

Instructions to Candidates :

*1) Answer **all** questions.*

2) Draw diagram wherever necessary.

I. Answer the following in **one** word or in **one** sentence each. **(15×1=15)**

1) Alkaline phosphatases
2) lac selection
3) Protoplast fusion
4) Linkers
5) Taq DNA polymerase
6) Reverse Transcriptase
7) Episomes
8) Multiple copy number
9) Nitrocellulose membrane
10) YAC
11) Selectable markers
12) PUC 18
13) Insertional inactivation
14) Phagemids
15) Plasmids

II. Answer any **five** of the following **(5×5=25)**

16) Give a note on construction of CDNA library.

17) Applications of PCR in molecular diagnosis.

18) Describe M13 vector and give its applications

19) Give a note on DNA foot printing

20) Describe Replica plating technique

21) Discuss the method of construction of Genomic library

22) Describe briefly yeast based vectors.

III. Answer any **four** of the following **(4×10=40)**

23) Give a note on λ based and M13 vectors.

24) Discuss different methods involved in introduction of r-DNA molecule in eukaryotes.

25) Describe Sanger and coulson's method of gene sequencing.

26) What is CDNA? Describe the method of constructing CDNA library.

27) Give a note on bacterial plasmids used in gene cloning

28) Describe briefly blotting techniques and their applications

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