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RF-3717-18

M. Sc. (Sem. II) (Bio-Informatics) Examination

April / May – 2010

BI-202 : Molecular Biology & Genetics

Time : **3** Hours] [Total Marks : **70**

RF-3717

Instructions :

(1)

નીચે દર્શાવેલ ☛ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fillup strictly the details of ☛ signs on your answer book.

Name of the Examination :

☛ M. Sc. (Sem. II) (Bio-Informatics)

Name of the Subject :

☛ BI-202 : Molecular Biology & Genetics

☛ Subject Code No. : 3 7 1 7 ☛ Section No. (1, 2,.....) : 1

Seat No. :

Student's Signature

(2) Figures to the right indicate full marks of the question.
(3) Draw neat and labeled diagrams whenever necessary.
(4) Both sections must be written in **separate** answer books.

1 Define following terms:- **5**

(a) Nucleosome
(b) Recombination
(c) Frame-shift mutation
(d) Epistasis
(e) Inversion

2 Describe briefly (any **three**):- **18**

(a) Numerical chromosomal abnormality
(b) Induced mutation
(c) Direct repair mechanism
(d) Multiple alleles

3 Write a detailed note on DNA replication **12**

OR

3 Define Linkage? How linkage maps are generated.

RF-3718

Instructions :

(1)

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Name of the Examination :

☛ **M. Sc. (Sem. II) (Bio-Informatics)**

Name of the Subject :

☛ **BI-202 : Molecular Biology & Genetics**

☛ Subject Code No. : **3 7 1 8** ☛ Section No. (1, 2,.....) : **2**

Seat No. :

Student's Signature

(2) Figures to the right indicate full marks of the question.

(3) Draw neat and labeled diagrams whenever necessary.

(4) Both sections must be written in **separate** answer books.

4 Define following terms:- **5**

(a) Plasmids

(b) Triplet-codon

(c) Conjugation

(d) Transduction

(e) t-RNA

5 Describe briefly (any **two**):- **16**

(a) Transformation in bacteria

(b) Gene Mapping in bacteria

(c) Post-transcriptional modification

6 Describe translation in prokaryotes **14**

OR

6 How expression of genes is regulated in bacteria.
