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BOH 502



III Semester M.Sc. Degree Examination, December 2018
(CBCS)
BOTANY
Cytogenetics and Molecular Biology
(Hard Core)

Time : 3 Hours

Max. Marks : 70

I. Answer **any three** of the following :

(Each answer not exceeding 5 pages)

(3×10=30)

- 1) Give a detailed account on the epigenetic inheritance.
- 2) Give a detailed account on the factors affecting the stability of DNA and RNA.
- 3) Describe different levels of gene regulation by taking 'gal system in yeast' as an example.
- 4) Write in detail about uvr, mut and sos repair mechanisms of DNA.
- 5) Describe the role of endoplasmic reticulum and golgi bodies during co- and post- translational modifications.

II. Write notes on **any six** of the following :

(Each answer not exceeding 3 pages) :

(6×5=30)

- 6) Penetrance and expressivity.
- 7) Phylogenetic tree.
- 8) Constructions of phage vectors.
- 9) Apoptosis.
- 10) Diversity and function of aminoacyl-t-RNA.
- 11) In Vitro complementation test
- 12) Recombination distance
- 13) C-value paradox.

P.T.O.



III. Write short notes on **any five** of the following :

(**Each** answer **not** exceeding **one** page) :

(5×2=10)

- 14) Nucleolus
 - 15) Transcription unit.
 - 16) Pseudoalleles.
 - 17) Splicosome.
 - 18) Hyperchromic effect.
 - 19) Nick translation.
 - 20) Insertion mutagen.
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