

M.Sc.(Microbiology) (CBCS Pattern) Semester - III
PSMBT-09 - Paper-I : Genetics and Molecular Biology

P. Pages : 1

Time : Three Hours



GUG/S/23/11291

Max. Marks : 80

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- Notes : 1. All the questions are compulsory and carry equal marks.
2. Draw well labelled diagram wherever necessary.
3. Figures to the right indicate full marks.

1. Write an essay on DNA pol III. **16**
- OR**
- a) Differentiate between BER & NER. **8**
- b) Write about genome, genes, muton and recon. **8**
2. Write a note on genetic code and its characteristics. **16**
- OR**
- a) Differentiate between extrinsic and intrinsic termination of transcription. **8**
- b) Explain briefly chaperones. **8**
3. Write a note on Lac operon. **16**
- OR**
- a) Explain T₄ phage proteins in regulation of translation. **8**
- b) Protein degradation control. **8**
4. Explain in detail Bacterial conjugation and applications. **16**
- OR**
- a) Gene complementation. **8**
- b) Briefly explain genetic recombination. **8**
5. Write short notes on –
- a) Holoenzyme. **4**
- b) RNA editing **4**
- c) Autogenous control of 'r' proteins. **4**
- d) Transformation in Haemophilus Influenzae. **4**
