

M.Sc.(Biotechnology) CBCS Pattern Semester-I
PSBIT104 - Paper-IV : Molecular Biology

P. Pages : 1

Time : Three Hours



GUG/W/23/11149

Max. Marks : 80

1. Explain in detail about DNA replication in Prokaryotic cell. **16**
- OR**
- a) Explain Messelson and Stahl experiment of semi-conservation replication. **8**
- b) Describe DNA repair mechanism. **8**
2. Describe Prokaryotic transcription in detail. **16**
- OR**
- a) Explain Lac Operon in detail. **8**
- b) Explain modification of RNA. **8**
3. Explain process of translation in Prokaryotes. **16**
- OR**
- a) Describe the Genetic code. **8**
- b) Explain the post translational modification of protein. **8**
4. Discuss in detail about conjugation in bacteria. **16**
- OR**
- a) Discuss about the C-value paradox. **8**
- b) Give salient features of the E.coli genetic map. **8**
5. Write notes on:
- a) Repair of double strand breaks. **4**
- b) Three types of RNA Polymerase in Eukaryotes. **4**
- c) Couple transcription & translation. **4**
- d) Regulatory Gene. **4**
