

M.Sc. (Biotechnology) (NEP Pattern) Semester-III
STPG03BTH004 - Applied Bio-technology

P. Pages : 1

Time : Three Hours



GUG/S/25/15949

Max. Marks : 80

Notes : 1. All questions are compulsory.

1. Describe in detail polymerase chain reaction with their application. 16
- OR**
- a) Explain processing of recombinant proteins. 8
b) Explain protein engineering. 8
2. Explain somatic and germline gene therapy. 16
- OR**
- a) Discuss production of monoclonal antibodies by phage display technique. 8
b) Discuss Gene therapy of Human disease. 8
3. Discuss role of r-DNA technology in production of polio vaccine. 16
- OR**
- Explain the role of r-DNA technology in production of;
- a) Insulin 8
b) Alcohol 8
4. Explain principal and application of green house technology. 16
- OR**
- a) Explain concept of nanobiotechnology and its application. 8
b) Discuss shikimate pathway. 8
5. a) Write salient features of expression vectors. 4
b) Discuss retrovirus gene transfer system. 4
c) Discuss the role of r-DNA technology in production of vit. B12. 4
d) Write a note on lysosomal enzymes. 4
