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B.Sc./6th Sem/BOT/26(NEP)

2026

6th Semester Examination (CCFUP : NEP)

BOTANY

Paper : MJ 12-T

(Single Core Major)

[Immunology and Applied Microbiology]

Full Marks : 40

Time : Two Hours

*The figures in the margin indicate full marks.
Candidates are required to give their answers
in their own words as far as practicable.*

Group - A

Answer any *five* questions : $2 \times 5 = 10$

1. What is epitope?
2. What is a vaccine?
3. What is meant by autoimmunity?
4. What is lyophilization?
5. What is monoclonal antibody?
6. What is fermentation?
7. What is biofuel?
8. Define antibiotics.

P.T.O.

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(2)

Group - B

Answer any *four* questions : $5 \times 4 = 20$

9. Write down the difference between innate and adaptive immunity.
10. What are the different types of immunoglobulins? Draw and describe the most abundant Ig found in humans. $2+3$
11. Explain the downstream processing.
12. What is AMR and how it can be overcome?
13. Explain the role of microbes in soil. What is BNI? $4+1$
14. Describe the role played by microbes in the nitrogen cycle in agricultural soil.

Group - C

Answer any *one* question : $10 \times 1 = 10$

15. What is bioremediation? Draw and describe the structure of a typical fluidized bed bioreactor. $2+(3+5)$
 16. Write short notes on the following : $5 \times 2 = 10$
 - (i) Bioplastics
 - (ii) Waste Water Treatment
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