

Please check whether you have got the right question paper.

- N.B:**
1. All questions are **compulsory**.
  2. All questions carry equal marks.
  3. Draw neat and labeled diagrams wherever necessary.

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|-------------|--|-----------|
| <b>Q. 1</b> | Describe in detail specific and non-specific defense mechanism in shellfish. | <b>12</b> |
|             | <b>OR</b>  |           |
| <b>Q. 1</b> | Write short notes on :   |           |
|             | a) Immunogenicity  | <b>06</b> |
|             | b) Immune suppressant  | <b>06</b> |
| <b>Q. 2</b> | Describe in detail histopathological methods.                                | <b>12</b> |
|             | <b>OR</b>  |           |
| <b>Q. 2</b> | Write short notes on :   |           |
|             | a) Immunoassay   | <b>06</b> |
|             | b) Electron microscopy   | <b>06</b> |
| <b>Q. 3</b> | Describe in detail vaccines  | <b>12</b> |
|             | <b>OR</b>  |           |
| <b>Q. 3</b> | Write short notes on :   |           |
|             | a) Bactericins   | <b>06</b> |
|             | b) Adjuvants   | <b>06</b> |
| <b>Q. 4</b> | Explain pharmacokinetics and pharmacodynamics.                               | <b>12</b> |
|             | <b>OR</b>  |           |
| <b>Q. 4</b> | Write short notes on :   |           |
|             | a) Drug resistance   | <b>06</b> |
|             | b) Immunostimulants  | <b>06</b> |
| <b>Q. 5</b> | Write short notes on <b>any three</b>  | <b>12</b> |
|             | a) Cellular adaptation   |           |
|             | b) Serological techniques  |           |
|             | c) Development of DNA Vaccine  |           |
|             | d) Antiviral drugs   |           |
|             | e) Pathogen specificity  |           |
|             | f) Drug-regulation in India  |           |