

B.Sc. (CBCS Pattern) Semester-V
USMBT-11 DEC - Microbiology-IV - Virology

P. Pages : 2

Time : Three Hours



GUG/W/24/13108

Max. Marks : 50

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- Notes : 1. All questions are compulsory.
2. Draw the diagram wherever it is necessary.

1. Explain in detail various structure of Viruses. 10

OR

- a) Write a note on the cultivation of Viruses. 2.5
- b) Give the general properties of viruses. 2.5
- c) Explain in brief discovery of viruses. 2.5
- d) Add a note on Isolation of the viruses. 2.5

2. Explain in detail the lysogenic cycle of bacteriophage. 10

OR

- a) What is alternate splicing explain in brief. 2.5
- b) Explain the lambda phage with reference to terminal cohesive end. 2.5
- c) Discuss the terminal redundancy. 2.5
- d) Write a note on partial double stranded genome. 2.5

3. Explain the various types of DNA and RNA oncogenic. 10

OR

- a) Explain the role of viral vector in gene cloning. 2.5
- b) Write note on antiviral compound and mode of action. 2.5
- c) What are interferon? Explain there mode of action. 2.5
- d) Write a note on viral vectors in gene expression. 2.5

4. What are interferon? Explain the mechanism. 10

OR

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| a) Write a note on prevention of Influenza virus. | 2.5 |
| b) Discuss the general principle of Viral Vaccines. | 2.5 |
| c) Add a note on control of hepatitis virus. | 2.5 |
| d) Describe the prevention and control of SARS-CoV. | 2.5 |

5. Solve any ten.

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| a) Define Virus. | 1 |
| b) What are Viriod. | 1 |
| c) Define prions. | 1 |
| d) Name the unusual bases in viruses. | 1 |
| e) Give the example of virus having partial double stranded genome. | 1 |
| f) Define overlapping genes. | 1 |
| g) Define oncogenes. | 1 |
| h) Give the example of oncogenic RNA virus. | 1 |
| i) Define protooncogene. | 1 |
| j) Give the infection site of MERS – CoV. | 1 |
| k) Define viral vaccine. | 1 |
| l) Give the long form of SARS-CoV. | 1 |
