

Master of Science in Microbiology Examination: May - 2023

Day & Date	Semester	Subject Name	Time	Code	Marks
Wednesday 03-05-2023	3 rd II (Fresh/ Repeater)	Advance Clinical Virology	11:00 AM To 01:30 PM	2101	75

- Instructions: 1) Question No. 5 is compulsory.
2) Attempt any 4 from the remaining.
3) All questions carry equal marks.

- Q.1 Explain rapid diagnostic assays based in detection of viral infections. 15
- Q.2 Discuss how adsorption and precipitation techniques aid in purification of virus. 15
- Q.3 Discuss on mechanism of DNA synthesis & post transcriptional processing. 15
- Q.4 Write down the principle and significance of haemagglutination assay. 15
- Q.5 Write short notes on (Any 3) 15
- a) Universal virus classification.
 - b) Emerging virus.
 - c) Interferon & chemotherapeutic agent.
 - d) Spread of HIV infection
- Q.6 What are prions? Discuss pathogenesis of a disease caused by them. 15
- Q.7 How do bacteriophage replicate? Give two examples of bacteriophage. 15

Master of Science in Microbiology Examination: April/May - 2023

Day & Date	Semester	Subject Name	Time	Code	Marks
Thursday 11-05-2023	II (Fresh/ Repeater)	Macromolecules & Molecular Enzymology	11:00 AM To 01:30 PM	2104	75

Instructions: 1) Q.5 is compulsory.
2) Attempt any 4 from the rest.
3) All questions carry equal marks.

- Q.1 Explain in details classification of protein on the basis of structure. 15
- Q.2 Explain in detail Different form of the DNA 15
- Q.3 Write the short notes on following. 15
- Structure of the DNA
 - Isoenzyme
 - Draw the diagram of urea Cycle
- Q.4 Explain factors affecting enzyme activity. 15
- Q.5 Write the short notes on following. (Any 3) 15
- Structure of r RNA
 - Allosteric enzyme
 - Application of immobilized enzyme in industries
 - Activation Energy
- Q.6 Explain in detail types of the enzyme inhibition. 15
- Q.7 Explain Method of protein purification. 15

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Day & Date	Semester	Subject Name	Time	Code	Marks
Saturday 06-05-2023	III (Fresh/ Repeater)	Food & Dairy Microbiology	11:00 AM To 01:30 PM	2103	75

Instructions:

- 1) Question No. 5 is compulsory.
- 2) Attempt any 4 from the remaining.
- 3) All questions carry equal marks.

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| Q.1 | Describe the Food intoxication with the help of Clostridium | 15 |
| Q.2 | Discuss on Biosensors in food industry. | 15 |
| Q.3 | Explain chemical and naturally occurring antimicrobials in detail. | 15 |
| Q.4 | Discuss the role of microorganisms in fermentation of acidophilus Milk and Yogurt. | 15 |
| Q.5 | Write short notes on (Any 3) | 15 |
| | a) Soy sauce fermentation by moulds. | |
| | b) HACCP | |
| | c) UV rays | |
| | d) Application of microbial enzymes in dairy industry | |
| Q.6 | Explain mycotoxins in food with reference to Aspergillus. | 15 |
| Q.7 | Write a short note on fermented vegetable Saurkraut. | 15 |