STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI –600 086 (For candidates admitted during the academic year 2023 – 2024)

M. Sc. DEGREE EXAMINATION, APRIL 2024 BIOTECHNOLOGY SECOND SEMESTER

COURSE : ELECTIVE PAPER : VIROLOGY SUBJECT CODE : 23BY/PE/VR15

TIME : 3 HOURS MAX. MARKS: 100

| Q. No. | SECTION A $(10 \times 1 = 10)$ Answer ALL Questions | СО | KL |
|--------|---|----|----|
| 1 | Write about the importance of envelope in virus. | 1 | 1 |
| 2 | What is the inclusion body in virus? | 1 | 1 |
| 3 | Define productive infections. | 1 | 1 |
| 4 | List the symptoms of Herpes simplex virus infection. | 1 | 1 |
| 5 | Write any two human carcinogenic virus infections. | 1 | 1 |
| 6 | How subunit vaccines are prepared against virus infections | 1 | 1 |
| 7 | Name any two primary and secondary culture used for virus isolation. | 1 | 1 |
| 8 | Define virus latency. | 1 | 1 |
| 9 | What are the two different modes of virus entry into the host cell? | 1 | 1 |
| 10 | Name any two primary mode of transmission for respiratory viral infections. | 1 | 1 |
| Q. No. | SECTION B $(5 \times 2 = 10)$ Answer ALL Questions | CO | KL |
| 11 | Write briefly about the DNA virus classification. | 1 | 2 |
| 12 | Explain the attachment process of virus in host cell during DNA virus replication | 1 | 2 |
| 13 | Define abortive infections with suitable example. | 1 | 2 |
| 14 | What are the prevention methods for gastrointestinal viral infections? | 1 | 2 |
| 15 | Define subunit vaccine. | 1 | 2 |
| Q. No. | SECTION C $(4 \times 10 = 40)$ Answer ALL Questions | CO | KL |
| 16a | Classify virus based on Baltimore concept. | | |
| 16b | (or) Show the viral latency mechanism with suitable example. | 2 | 3 |
| 17a | Present the mechanism of transmission of viral infection. | | |
| 17b | (or) Compile sexually transmitted viral infection. | 2 | 3 |

| 18a 18b | Analyze human oncoviral infection (or) Outline the merits and demerits of serological methods in viral infection diagnosis | 3 | 4 |
|------------|---|----|----|
| 19a 19b | Examine the various routes for inoculation of virus in an embryonated egg. (or) Analyze the types of vaccines for viral infections. | 3 | 4 |
| Q. No. | SECTION D (2 x 20 = 40) Answer ALL Questions | CO | KL |
| 20a 20b | Describe about RNA virus replication. (or) Evaluate viral interaction mechanisms which contribute to host infection. | 4 | 5 |
| 21a 21b | Generate the etiology and pathogenesis of Creutzfeldt - Jakob disease. (or) Formulate molecular methods used to diagnose viral | 5 | 6 |
