

**PARUL UNIVERSITY**  
**FACULTY OF APPLIED SCIENCE**  
**B.Sc., Winter 2017-18 Examination**

**Semester: 5**  
**Subject Code: 1101302**  
**Subject Name: Virology**

**Date: 20/12/2017**  
**Time: 02:00pm to 04:30pm**  
**Total Marks: 60**

**Instructions:**

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

- Q.1. A) Essay type/ Brief note (08)**
- (a) The structure of viruses & morphology.
  - (b) Virus purification.
- Q.1. B) Answer the following questions (Any two)**
- (a) Short note/ Brief note (04)
    1. Give name of diagnostic methods based on nucleic acid diagnosis for virology
    2. Short note: Give the name of suborders of order virales in the virus classification.
  - (b) Give the names of ds DNA virus that infect vertebrates. (04)
  - (c) Integration of virus in host. (04)
- Q.2. A) Answer the following questions.**
- (a) Fill in the blanks. (Each of 02 marks) (04)
    1. Disease 'AIDS' is caused by..... Virus and 'FLU' is caused by ..... Virus.
    2. HPV infection is caused by ..... Virus which is ..... DNA/RNA virus.
  - (b) Short note: Foot and Mouth Disease Virus. (04)
- Q.2. B) Answer the following questions (Any two)**
- (a) Short note: RIFT valley fever. (03)
  - (b) Short note: Transmission of plant virus. (03)
  - (c) Short note: Disease and epidemiology of Potyviruses group. (03)
- Q.3. A) Brief note (Each of 04 marks) (08)**
- (a) Virus & Cancer
  - (b) Virus as therapeutic agents.
- Q.3. B) Answer the following questions (Any two)**
- (a) Short note: Conventional vaccines (04)
    1. Attenuated live virus vaccines & Killed virus vaccines.
    2. Advantages of DNA vaccines
  - (b) Short note: Antisense RNA. (04)
  - (c) Short note: Subunit vaccines. (04)
- Q.4. A) Answer the following questions.**
- (a) Short note: Viral gene delivery system (04)
  - (b) Short note: Swine Influenza (04)
- Q.4. B) Answer the following questions (Any two)**
- (a) Short note: Apoptosis & necrosis (03)
  - (b) Short note: Importance of studying modern virology. (03)
  - (c) Short note: control of viral infection and diseases (03)