

**PARUL UNIVERSITY**  
**FACULTY OF APPLIED SCIENCE**  
**M.Sc., Summer 2017-18 Examination**

**Semester: 2**  
**Subject Code: 11201151**  
**Subject Name: Molecular Virology**

**Date: 11/05/2018**  
**Time: 10.30 am to 1.00 pm**  
**Total Marks: 60**

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**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/** (08)  
Explain Baltimore classification system.
- Q.1. B) Answer the following questions (Any two)** (04)
- (a) Brief note (2x2) (04)
1. Give any two examples of + sense ssRNA virus
  2. Give any two examples of ds DNA virus
- (b) Short note on cultivation of virus. (04)
- (c) Short note on propagation of virus in cell culture. (04)
- Q.2. A) Answer the following questions.** (04)
- (a) Brief note (2x2M) (Each of 02 marks) (04)
1. Define cytopathic effect
  2. Define hemagglutination assay
- (b) Short note on TCID<sub>50</sub> (04)
- Q.2. B) Answer the following questions (Any two)** (03)
- (a) Short note on structure of TMV (03)
- (b) Short note on replication of CMV (03)
- (c) Short note on lyophilization for preservation of virus. (03)
- Q.3. A) Essay type** (08)  
Explain structure and replication of phage M13
- Q.3. B) Answer the following questions (Any two)** (04)
- (a) Write a short note on lifecycle of T-even phage (04)
- (b) Write short note on replication of  $\phi$  X 174. (04)
- (c) Write short note on replication of adenovirus. (04)
- Q.4. A) Answer the following questions.** (04)
- (a) Short note on replication of Influenza (04)
- (b) Write short note on tumor viruses. (04)
- Q.4. B) Answer the following questions (Any two)** (03)
- (a) Write short note on Structure of Influenza (03)
- (b) Write short note on replication in Hepatitis virus (03)
- (c) Write short note on structure of Pox virus. (03)