

**PARUL UNIVERSITY**  
**FACULTY OF APPLIED SCIENCE**  
**M.Sc., Summer2017-18 Examination**

**Semester: 2**  
**Subject Code: 11201152**  
**Subject Name: Biology of Immune System**

**Date: 07/05/2018**  
**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/ Brief note (4x2) (Each of 04 marks) (08)**  
(a) Write a note on T cell maturation process.  
(b) Brief note on antibody diversity.
- Q.1. B) Answer the following questions (Any two) (04)**  
(a) Brief note (2x2) (Each of 02 marks) (04)  
1. Define innate immunity.  
2. Define adjuvants.  
(b) Difference between B cell and T cell. (04)  
(c) Write a note on Classical Complement Pathway. (04)
- Q.2. A) Answer the following questions. (04)**  
(a) Short note/ Brief note (2x2) (Each of 02 marks) (04)  
1. What is the role of IgE?  
2. Define allergy.  
(b) Explain detail structure of immunoglobulins. (04)
- Q.2. B) Answer the following questions (Any two) (03)**  
(a) Short questions. (Each of 01 marks) (03)  
1. What is the role of RBC?  
2. Which antibody has pentameric structure?  
3. What is the role of T helper cell?  
(b) Write a note on IgG. (03)  
(c) Write a short note on Thymus. (03)
- Q.3. A) Essay type/ Brief note (4x2) (Each of 04 marks) (08)**  
(a) Write a note on Type I Hypersensitivity.  
(b) Write a note on monoclonal antibody.
- Q.3. B) Answer the following questions (Any two) (04)**  
(a) Brief note (2x2) (Each of 02 marks) (04)  
1. What is Hybridoma Technology?  
2. What is Hemagglutination?  
(b) Write a note on AIDS. (04)  
(c) What is autoimmunity? Write a note on rheumatoid arthritis. (04)
- Q.4. A) Answer the following questions. (04)**  
(a) Brief note (2x2) (Each of 02 marks) (04)  
1. What is isotypes?  
2. What is allotypes?  
(b) Write a short note on ELISA. (04)
- Q.4. B) Answer the following questions (Any two) (03)**  
(a) Short questions. (Each of 01 marks) (03)  
1. Write a full form of SCID.  
2. Define isograft.  
3. Who discover blood grouping system?  
(b) What is the importance of immunosuppressive agents in transplantation? (03)  
(c) Write a brief on tumor associated antigens. (03)