



RAN - 2003001105020001

**RAN-2003001105020001**

**B. Sc. (Biotechnology) (Sem. - V) Examination March - 2023**

**Immunotechnology**

**Time: 2 Hours ]**

**[ Total Marks: 50**

**સૂચના : / Instructions**

(1)

નીચે દર્શાવેલ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી.  
**Fill up strictly the details of signs on your answer book**

Name of the Examination:

**B. Sc. (Biotechnology) (Sem. - V)**

Name of the Subject :

**Immunotechnology**

Subject Code No.: **2003001105020001**

Seat No.:

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
----------------------	----------------------	----------------------	----------------------	----------------------	----------------------

Student's Signature
---------------------

- (2) Figures to the right indicate full marks.  
(3) Draw neat and labeled diagrams wherever necessary.

**Q-1: Define / Answer in short Any Four:**

**(8)**

- (a) State the function of HAT medium.  
(b) Immunodiffusion reactions.  
(c) Give examples of antigens that can act as inducers of hypersensitivity type-I  
(d) On what principle does ABO blood grouping is based?  
(e) What is HAMA response in Type III hypersensitivity?  
(f) Abzymes.

**Q-2: Attempt Any Two:**

**(14)**

- (a) Discuss the applications of monoclonal antibodies in detail.  
(b) Explain hybridoma technology.  
(c) Write a note on Bacterial and Passive agglutination reactions.

**Q-3: Answer Any Two: (14)**

- (a) Explain in detail about *Erythroblastosis foetalis*.
- (b) Explain type-IV hypersensitivity reaction with one suitable example.
- (c) Discuss about Radioimmunoassay technique.

**Q-4: Attempt Any Two of the following: (14)**

- (a) Explain recombinant vector vaccine.
  - (b) Discuss inactivated and live vaccine in short.
  - (c) Describe Insulin - Dependent Diabetes Mellitus.
-