

QP Code : 76136

For Paper Students (3 Hours) (Total Marks: 75)
For Research Students (3 Hours) (Total Marks: 100)

N.B.: (1) All questions are compulsory
(2) For paper students, each question carries 15 marks
(3) For Research students, each question carries 20 marks

- Q.1. (a)** Discuss any **one** of the following: 7/10
(i) How is tolerance established and maintained?
(ii) Various tissue typing procedures.
- (b)** Comment on **anyone** of the following: 8/10
(i) Immunotherapy for treatment of cancer.
(ii) Various B-cell immunodeficiency disorders.
- Q.2. (a)** Answer any **one** of the following: 7/10
(i) Mosquito borne viral infections are posing a threat to public health. Justify
(ii) Discuss the major factors affecting emergence and re-emergence of infectious diseases.
- (b)** Answer **anyone** of the following: 8/10
(i) Explain the statistical tools used in epidemiology.
(ii) Discuss pathogenesis and post disease complications of malaria caused by *Plasmodium falciparum*.
- Q.3 (a)** Answer any **one** of the following: 7/10
(i) Stem cells have a great potential in treatment of genetic disorders. Justify.
(ii) What is gene therapy? Discuss the different methods used in this.
- (b)** Discuss **anyone** of the following: 8/10
(i) Generation of Monoclonal antibodies and their applications.
(ii) Cell culture systems have proved to be very useful in research.
- Q.4 (a)** Answer **anyone** of the following: 7/10
(i) Various personnel are involved in any clinical research. Justify.
(ii) Write a short note on Good Clinical Practice responsibilities at the participating sites.

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- (b) Answer **anyone** of the following: 8/10
- (i) Comment on: Patient has a right to autonomy in a clinical trial.
 - (ii) Write a short note on development of malarial vaccines.

- Q.5** (a) Write short notes on any **three** of the following: 12/15
- (i) Strategies used in prevention of hospital borne infections
 - (ii) GVHD.
 - (iii) Organ specific autoimmune disorders.
 - (iv) Non-tubercle Mycobacterial infections.

- (b) Explain any **one** of the following: 3/5
- (i) Immunologically privileged sites.
 - (ii) Application of liposomes as drug delivery systems.
