

Roll No : .....

Total No. of Questions : 11 ]

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# SP-689

M.Sc. (Final) Examination, 2021

MICROBIOLOGY

Paper - VIII

(Medical Microbiology and Immunology)

Time : 1½ Hours ]

[ Maximum Marks : 75

## Section-A

(Marks : 2 × 10 = 20)

**Note :-** Answer all *ten* questions (Answer limit 50 words). Each question carries 2 marks.

(खण्ड-अ)

(अंक : 2 × 10 = 20)

**नोट :-** सभी दस प्रश्नों के उत्तर दीजिए (उत्तर-सीमा 50 शब्द)। प्रत्येक प्रश्न 2 अंक का है।

## Section-B

(Marks : 5 × 5 = 25)

**Note :-** Answer all *five* questions. Each question has internal choice (Answer limit 200 words). Each question carries 5 marks.

(खण्ड-ब)

(अंक : 5 × 5 = 25)

**नोट :-** सभी पाँच प्रश्नों के उत्तर दीजिए। प्रत्येक प्रश्न में विकल्प का चयन कीजिए (उत्तर-सीमा 200 शब्द)। प्रत्येक प्रश्न 5 अंक का है।

## Section-C

(Marks : 10 × 3 = 30)

**Note :-** Answer any *three* questions out of five (Answer limit 500 words). Each question carries 10 marks.

(खण्ड-स)

(अंक : 10 × 3 = 30)

**नोट :-** पाँच में से किन्हीं तीन प्रश्नों के उत्तर दीजिए (उत्तर-सीमा 500 शब्द)। प्रत्येक प्रश्न 10 अंक का है।

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SP-689 P.T.O.

**Section–A**

2 each

1. (i) What are Nosocomial infections ? Enlist *three* methods to prevent nosocomial infections.
- (ii) What is the importance of resident bacterial flora in humans ?
- (iii) Name the causative agent of Histoplasmosis. Write *three* characters of this disease.
- (iv) Name the causative agent of Tuberculosis, Mumps Diphtheria and Rinderpest.
- (v) What is Minimum Inhibitory Concentration of an Antibiotic ?
- (vi) Why are BCG and DPT vaccines important ?
- (vii) Define epitope and paratope.
- (viii) What are Antigen Presenting Cells ? Give examples.
- (ix) Classify hypersensitivity on the basis of mechanism.
- (x) What do you mean by ADCC and Opsonization ?

**Section–B**

5 each

2. Write short notes on the following :
  - (a) Role of enzymes in the development of a disease
  - (b) Bacterial aggressins

*Or*

Write an explanatory note on noscomial infections.

3. Give a brief account of pathogenesis, causal agent and diagnosis of Typhoid and Gonorrhoea.

*Or*

Explain in brief :

- (a) Foot and mouth disease
- (b) Anthrax

4. Write short notes on the following :
- (a) Passive prophylactic measures
  - (b) Methods of drug susceptibility testing

*Or*

What do you mean by Vaccines ? Add a note on the various vaccines and their schedule.

5. Explain structure of Thymus.

*Or*

What is Innate Immunity ? Explain.

6. Explain classical pathway of complement system.

*Or*

Write a short note on the process of graft rejection.

**Section–C**

10 each

- 7. Write mechanism of bacterial adhesion and colonization in various parts of the body.
- 8. Write an essay on AIDS.
- 9. Write an explanatory note on Quorum sensing.
- 10. Explain structure of IgG and MHC-II molecule.
- 11. Describe manifestation of Type-I reaction of hypersensitivity.