

SEAT No. \_\_\_\_\_



No. of Printed Pages: 02

[148/A-24]

SARDAR PATEL UNIVERSITY  
B. Sc. Semester- VI, April -2022  
MICROBIOLOGY

US06CMIC22 - Immunology and Medical Microbiology

Date: 05/04/2022, Tuesday

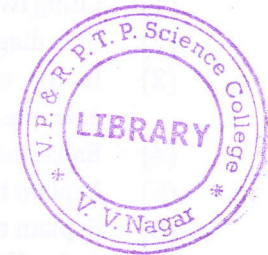
Time: 03:00pm to 05:00pm

Marks: 70

Q.1 Write the correct option in your answer book.

[10]

- The immunoglobulin present in tears, saliva and body fluids is:
  - IgD
  - IgG
  - IgM
  - IgA
- When cytokines are released from mononuclear phagocytes, they are called \_\_\_\_\_:
  - Lymphokines
  - Interleukins
  - Monokines
  - None of them
- One of the following combinations holds true as examples of primary lymphoid organ?
  - Spleen and lymphnode
  - Bone marrow and thymus
  - GALT and MALT
  - Spleen and GALT
- The C3 convertase of alternative pathway is \_\_\_\_\_?
  - C3bBb
  - C2a4b
  - C56789
  - C5b3b
- The VDRL test for syphilis is an example of:
  - Tube test
  - Slide test
  - Ring test
  - Immunodiffusion
- Which of the following factor encourage skin colonization of microbes?
  - Dryness
  - Humidity
  - Low pH
  - Inhibitory substance
- A count of \_\_\_\_\_ organism or higher is indicative of urinary tract infection.
  - $10^9$
  - $10^3$
  - $10^7$
  - $10^5$
- In the human body, \_\_\_\_\_ is the part of intestinal tract, has the largest microbial population.
  - Small intestine
  - Stomach
  - Large intestine
  - none of the above.
- When a disease occurs worldwide, it is categorize as \_\_\_\_\_
  - Endemic
  - Sporadic
  - Pandemic
  - None of these
- The incubation period of *P. falciparum* is \_\_\_\_\_
  - 7 to 10 days
  - 10 to 14 days
  - 8 to 25 days
  - None of the above



**Q.2 Do as directed**

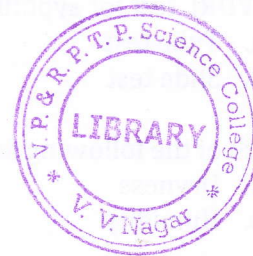
**[08]**

- (1) Most natural proteins are T-dependent antigens and B cells cannot respond to these antigens without a co-stimulatory signal from the T<sub>H</sub> cells. [True/False]
- (2) The combining area on the antibody molecule, corresponding to the epitope, is called the \_\_\_\_\_.
- (3) Alternate complement pathway is activated when C-reactive protein interacts with C1q. [True/False]
- (4) During the primary antibody response, \_\_\_\_\_ immunoglobulin appears first.
- (5) *Neisseria* species is the major causative agent of dental caries. [True/False]
- (6) \_\_\_\_\_ a human strain is used to produce "sweet acidophilus milk".
- (7) AIDS is the last stage of clinical features in HIV infection. [True/False]
- (8) H antigen is also called \_\_\_\_\_ antigen.

**Q.3 Answer in brief (Any TEN)**

**[20]**

- (1) Citing two examples, briefly describe chronic inflammation.
- (2) Give diagrammatic overview on the alternative pathway of complement system.
- (3) In the context of immunology, explain how the term adjuvant with suitable example.
- (4) Enlist the cells of lymphoreticular system.
- (5) Explain how agglutination differs from precipitation.
- (6) Explain the terms: Isotopes, Idiotypes and Allotypes.
- (7) Define: Bacteremia and Septicemia.
- (8) What is Gnotobiotic life?
- (9) Differentiate between Exotoxin and endotoxin.
- (10) Define: Morbidity and Mortality.
- (11) What is herd immunity?
- (12) Describe the treatment of dengue fever.



**Q.4 Write in detail (Any Four)**

**[32]**

- (1) Explain the basic structure of immunoglobulin and explain IgA and IgM in detail.
- (2) Give a brief overview on the processes of T cell maturation and discuss the types of T-cells
- (3) Describe phagocytosis in detail.
- (4) Explain the determinants of antigenicity in detail.
- (5) Write a note on normal flora of Respiratory tract.
- (6) Define Minimum lethal dose (MLD) and explain the Tetanus and cholera toxin.
- (7) Write in detail about causative agent, symptoms, pathogenesis and treatment of Typhoid.
- (8) Write in detail about causative agent, symptoms, pathogenesis and treatment of Tuberculosis.

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