



RZ-003-1016013

Seat No. _____

Third Year B. Sc. (Sem. VI) (CBCS) Examination

March - 2019

Microbiology : Paper - 603

(Clinical & Diagnostic Microbiology)

(New Course)

Faculty Code : 003

Subject Code : 1016013

Time : $2\frac{1}{2}$ Hours]

[Total Marks : 70

- Instructions :** (1) All questions are compulsory.
(2) Right side figures indicate mark of the question.
(3) Draw the figure wherever necessary.
(4) Write answers of all the questions in main answer sheet.

- 1 (A) Answer the following : 4
(1) Define Hematopoiesis
(2) What is FFP?
(3) What is the difference between Serum & Plasma?
(4) Who discovered ABO blood group system?
- (B) Answer in Brief : (Any One) 2
(1) Explain the role of platelets in Hemostasis.
(2) Explain significance of blood transfusion.
- (C) Answer in Detail : (Any One) 3
(1) Explain concept of Cross matching.
(2) Enlist components of blood and write protocol for the separation of packed red cells.

- (D) Write a note on : (Any **One**) **5**
- (1) Human Blood Group System
 - (2) Blood Coagulation.
- 2** (A) Answer the following : **4**
- (1) What do you mean by heterophile antibody?
 - (2) Define Serology.
 - (3) Name two fluorescent dye used in fluorescent antibody technique.
 - (4) _____ is an antibody that acts specifically against fibrinolysins of hemolytic streptococci and that is used chiefly in some diagnostic tests.
- (B) Answer in Brief : (Any **One**) **2**
- (1) Write four applications of Fluorescent Antibody Technique
 - (2) Explain Neufeld Quellung reaction.
- (C) Answer in Detail : (Any **One**) **3**
- (1) Discuss Complement fixation test
 - (2) Discuss single radial immunodiffusion.
- (D) Write a note on : (Any **One**) **5**
- (1) Agglutination Reaction
 - (2) Intracutaneous Diagnostic Tests.
- 3** (A) Answer the following : **4**
- (1) What is a clinical specimen?
 - (2) What is immunotherapy ?
 - (3) Which methods are used to identify microbes from clinical specimen?
 - (4) What is PCR?

- (B) Answer in Brief : (Any **One**) **2**
- (1) Write applications of RIA
 - (2) Which rapid methods are used for the identification of microbes from clinical specimen?
- (C) Answer in Detail : (Any **One**) **3**
- (1) Discuss Western blot
 - (2) Discuss Immunoelectrophoresis
- (D) Write a note on : (Any **One**) **5**
- (1) ELISA
 - (2) Methods of Specimen Collection.
- 4 (A) Answer the following : **4**
- (1) Define Epidemiology.
 - (2) Write causative agent of Typhoid and Syphilis
 - (3) Give two examples of Opportunistic fungi.
 - (4) What do you mean by Systemic Mycoses?
- (B) Answer in Brief : (Any **One**) **2**
- (1) Write name of Disease caused by Shigella and write two symptoms.
 - (2) Write causative agent and diagnosis of Gonorrhoea.
- (C) Answer in Detail : (Any **One**) **3**
- (1) Explain Cutaneous Mycoses with example
 - (2) Enlist Diseases caused by Clostridium and discuss any one.
- (D) Write a note on : (Any **One**) **5**
- (1) Mycobacteria
 - (2) Epidemiological Markers.

- 5 (A) Answer the following : 4
- (1) What is immunization?
 - (2) Give four examples of air borne viral diseases.
 - (3) What do you mean by trophozoite?
 - (4) What causes Kala azar?
- (B) Answer in Brief : (Any One) 2
- (1) Define subunit vaccine and give one example of it.
 - (2) Write symptoms of Swine Flu.
- (C) Answer in Detail : (Any One) 3
- (1) Explain life cycle of *Entamoeba histolytica* and clinical manifestation of infection in humans.
 - (2) Discuss in detail about causes, symptoms, treatments and control of AIDS.
- (D) Write a note on : (Any One) 5
- (1) Malaria
 - (2) Concept and Types of Vaccines
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