Seat No. _____

HB-003-1016013

B. Sc. (Sem. VI) (2016) Examination

April – 2023

CLINICAL & DIAGNOSTIC MICROBIOLOGY

Faculty Code : 003
Subject Code : 1016013

Time : $2\frac{1}{2}$ Hours / Total Marks : **70**

1 (a) Objective type questions : **4**

(1) Who discovered Rh system of blood grouping ?

(2) What is FFP ?

(3) Which are the progenitors of Hematopoetic stem cells ?

(4) State one basic difference between serum and plasma.

(b) Answer in brief : (any one out of two) **2**

(1) Enlist various blood components and state their usage.

(2) State the significance of blood transfusion.

(c) Answer in detail : (any one out of two) **3**

(1) Enlist tests which are required before blood transfusion. Discuss cross matching in brief.

(2) Discuss Hemostasis.

(d) Write a note on : (any one out of two) **5**

(1) Write a detail note on Hematopoiesis.

(2) Describe the process of blood coagulation in detail.

2 (a) Objective type questions : **4**

(1) Define : Heterophile antibody.

(2) Enlist difference between Agglutination and Precipitation.

(3) What is serology ?

(4) Enlist two name of fluorescent dye used in diagnostic techniques.

(b) Answer in brief : (any one out of two) **2**

(1) Discuss precipitation test in brief.

(2) State the applications of immune diffusion,

(c) Answer in detail : (any one out of two) **3**

(1) Explain Neufeld Quelling reaction.

(2) Intracutaneous Diagnostic tests.

(d) Write a note on : (any one out of two) **5**

(1) Explain in brief Haemagglutination and Bacterial agglutination.

(2) Discuss Complement fixation test in detail.

3 (a) Objective type questions : **4**

(1) Which isotope is used in RIA ?

(2) Which enzyme is used in ELISA ?

(3) Enlist name of two latest method used for identification of clinical specimen.

(4) What is the full form of PCR ?

(b) Answer in brief : (any one out of two) **2**

(1) Discuss the immohistochemistry.

(2) Enlist two applications of immunotherapy.

(c) Answer in detail : (any one out of two) **3**

(1) Write a note on Immunofluorescence in detail..

(2) Write a detail note on RIA.

(d) Write a note on : (any one out of two) **5**

(1) Discuss ELISA in terms of its procedure, types and clinical applications.

(2) Discuss Western blotting in terms of its procedure, advantages, disadvantages and applications.

4 (a) Objective type questions : **4**

(1) Syphilis is caused by which organism ?

(2) Enlist two names of opportunistic fungi.

(3) State the name of causative agent of Meningitis.

(4) Enlist the names of test used for detection of tuberculosis.

(b) Answer in brief : (any one out of two) **2**

(1) Discuss Shigellosis in terms of its causative agent and symptoms.

(2) State the name and principle of test used for detection of typhoid fever.

(c) Answer in detail : (any one out of two) **3**

(1) Discuss the process of food poisoning in detail.

(2) Discuss Cutaneous mycoses in terms of its causative agent, symptoms and remedies.

(d) Write a note on : (any one out of two) **5**

(1) Write a detail note on Epidemiological markers.

(2) Discuss Mycobacterium in terms of its distinct cellular composition and pathogenesis.

5 (a) Objective type questions : **4**

(1) Enlist the types of Hepatitis virus.

(2) State the full form of MMR.

(3) State the name of vaccine to prevent from Tuberculosis.

(4) Write the name of causative agent of Japanese encephalitis.

(b) Answer in brief : (any one of two) **2**

(1) Discuss AIDS in terms of its causative agent and symptoms.

(2) Write a brief note on Polio vaccine.

(c) Answer in detail : (any 1 out of two) **3**

(1) Write a note on Amoebiasis in terms of its causative agent, diagnosis and remedies.

(2) Discuss Chikungunya in terms of its causative agent, symptoms and remedies.

(d) Write a note on : (any one out of two) **5**

(1) Write in detail note on Malaria.

(2) Enlist the modern approaches adopted to develop newer vaccines. Discuss any one approach in detail.

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