

## B.Sc. Semester - 6 (CBCS) Examination

Oct/Nov -2020

## CLINICAL AND DIAGNOSTIC MICROBIOLOGY (CORE)

Time: 2:00 Hours

Marks: 56

## Instructions:

1. Figures to the right indicate marks.
  2. There are five questions in the question paper.
  3. Answer any four of the following questions.
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**Q : 1a Answer the following (Any one)****07**

1. Discuss in detail : ABO and Rh blood grouping system.
2. What is haemostasis ? Explain role of platelets and various factors in blood coagulation.

**Q : 1b Attempt any one****04**

1. Explain Erythropoiesis pathway.
2. Describe principles of blood transfusion.

**Q : 1c Attempt any three****03**

1. What is heparin and AHG ?
2. Give examples of non ABO non Rh blood groups.
3. What is cross matching ?
4. What is FFP and PCV ?
5. Give examples of anticoagulants used in blood banking.

**Q : 2a Answer the following (Any one)****07**

1. Describe various agglutination tests used in immunodiagnostics.
2. Describe principle and use of Mancini and Ouchterlony's methods.

**Q : 2b Attempt any one****04**

1. What is antistreptolysin test ?
2. Describe complement fixation test.

**Q : 2c Attempt any three****03**

1. Give names of fluorescent dyes.
2. What is SRID ?
3. What is heterophile antibody ?
4. Write principle of Neufeld Quellung reaction.
5. What are intracutaneous tests ?

**Q : 3a Answer the following (Any one)****07**

1. What is swab ? Explain various specimen collection techniques including that of CoViD -19 suspected patients.
2. Describe two main types of ELISA in detail.

- Q : 3b Attempt any one** **04**
1. Explain Immuno-electrophoresis.
  2. Describe rapid diagnostic tests.
- Q : 3c Attempt any three** **03**
1. Give full forms of : RIA and RAST.
  2. Write examples of Immunochromatographic tests available in market.
  3. What is the use of Western Blot test ?
  4. Which pathogens are frequently detected using microscopy ?
  5. Write principle of RIA.
- Q : 4a Answer the following (Any one)** **07**
1. Discuss in detail : Epidemiological Techniques.
  2. Explain etiology, symptoms, control and prophylaxis of Treponema and Mycobacteria mediated diseases.
- Q : 4b Attempt any one** **04**
1. Explain Subcutaneous mycoses.
  2. Describe Widal and VDRL tests in brief.
- Q : 4c Attempt any three** **03**
1. Which disease is caused by *Tinea pedis* ?
  2. Name the causative agent of Gas Gangrene and Leprosy.
  3. What is candidiasis ?
  4. What is Morbidity and Mortality rate ?
  5. What are nosocomial infections ?
- Q : 5a Answer the following (Any one)** **07**
1. Write a detailed note on Malaria.
  2. Explain any three viral infections of humans in detail.
- Q : 5b Attempt any one** **04**
1. Discuss Amoebic dysentery.
  2. Explain novel vaccines with examples.
- Q : 5c Attempt any three** **03**
1. Give name of HIV antigens.
  2. Corona and Swine flu are caused by which viruses?
  3. What is Kala Azar ?
  4. Which diseases are transmitted by Tsetse fly and *Aedes Egypti* mosquito?
  5. What do you mean by Salk and Sabin Vaccine?

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