

PARUL UNIVERSITY
FACULTY OF APPLIED SCIENCE
B.Sc., Summer 2017-18 Examination

Semester: 6
Subject Code: 11102352
Subject Name: Medical Biotechnology

Date: 10/05/2018
Time: 10:30 am to 1:00 pm
Total Marks: 60

Instructions:

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

- Q.1. A)** Classify diseases. Write a detailed note on occurrence, development, stages and transmission of disease. (08)
- Q.1. B) Answer the following questions (Any two)**
- (a) Short note/ Brief note (2x2) (Each of 02 marks) (04)
1. Define Pathology, Infection, Etiology and Disease.
 2. Draw a labeled diagram of HIV
- (b) Write a short note on Reservoirs of Infection (04)
- (c) Discuss in Brief: Symptoms of Typhoid Fever. (04)
- Q.2. A) Answer the following questions.**
- (a) Short note/ Brief note (2x2) (Each of 02 marks) (04)
1. Write names of different species of *Plasmodium*.
 2. Define: Normal and Transient Microbiota.
- (b) Which are waterborne diseases? Explain in brief: Waterborne infections. (04)
- Q.2. B) Answer the following questions (Any two)**
- (a) Short note/ Multiple choice questions. (Each of 01 marks) (03)
1. A disease acquired by many hosts in a given area is referred to as
 - a) Endemic b) Pandemic c) Sporadic d) Epidemic
 2. _____ are the only natural host and reservoir of *Salmonella typhi*
 - a) Mosquito b) Buffalo c) Human d) Pig
 3. Which of the following best describes the role of reverse transcriptase?
 - a) Synthesis of RNA from genomic RNA b) Synthesis of DNA from genomic DNA
 - c) Synthesis of DNA from genomic RNA d) Synthesis of mRNA from host DNA
- (b) Explain in brief the test used for confirmation of Typhoid fever (03)
- (c) What is causal organism of Diphtheria? Explain Pathogenesis of this disease. (03)
- Q.3. A)** Explain in detail: Pathogenesis, Clinical features and laboratory diagnosis of HIV infection. (08)
- Q.3. B) Answer the following questions (Any two)**
- (a) Short note/ Brief note (2x2) (Each of 02 marks) (04)
1. Write a very brief note on Tuberculosis
 2. Write in very brief: various source of Infection
- (b) Explain in detail: Life cycle of Malaria (04)
- (c) Discuss: Prophylaxis of hepatitis B infection (04)
- Q.4. A) Answer the following questions.**
- (a) Short note/ Brief note (2x2) (Each of 02 marks) (04)
1. Draw labeled diagram of disease triangle & disease cycle
 2. Explain in very brief : Late blight of Potato
- (b) Write a concise note on laboratory diagnosis of Syphilis (04)
- Q.4. B) Answer the following questions (Any two)**
- (a) Short note/ Multiple choice questions. (Each of 01 marks) (03)
1. Write name of Plasmodium species responsible for causing cerebral malaria.
 2. What is Epidemic? Define.
 3. Which cells are most often infected by HIV?
- (b) Write in brief about Plant pathogens and Plant disease. (03)
- (c) Explain the importance of Enzyme Linked Immunosorbent Assay (ELISA) (03)