

MODEL PAPER
DEPARTMENT OF MICROBIOLOGY
M. Phil Admission Test
Quaid-i-Azam University

Total Marks: 40

Time: 1 hr.

Name: _____

Father Name: _____

Roll No: _____

Date: _____

The paper will have subject based MCQs (40 marks). Total number of questions will be 40, each question will have 1 mark. Examples of MCQs are given below.

Note: The questions will be selected from all fields of microbiology.

The research teams in the Department of Microbiology are working in three different domains including industrial, medical, and environmental microbiology. The details of each faculty member could be accessed from the Department website. <http://mic.qau.edu.pk/faculty.php>

1. Some bacteria can use CO₂ as the sole carbon source and obtaining energy by oxidation & reduction of inorganic substances. These bacteria are classified as:
 - a. Chemolithotrophs
 - b. Chemoheterotrophs
 - c. Photoautotrophs
 - d. Photoheterotrophs

2. The constant region of an antibody molecule
 - a. is responsible for its biological activity
 - b. enhances phagocytosis
 - c. activates complement
 - d. all of these

3. Mumps is caused by a
 - a. Morbillis virus
 - b. Paramyxovirus
 - c. adenovirus
 - d. Syncytial virusa

4. Which of the following does not inhibit protein synthesis?
 - a. tetracycline
 - b. streptomycin
 - c. erythromycin
 - d. penicillin

5. The transfer of antibodies in colostrums is a good example of
 - a. naturally acquired passive immunity
 - b. naturally acquired active immunity
 - c. artificially acquired active immunity
 - d. artificially acquired passive immunity

6. The enzyme used by retroviruses to make a DNA copy of their RNA genome is called
 - a. RNA polymerase
 - b. DNA polymerase
 - c. RNA replicase
 - d. Reverse transcriptase

7. Lytic life cycle of bacterial viruses follows following five steps in order
 - a. Attachment→ Penetration→ Alteration→ Assembly→ Release
 - b. Release→ Alteration→ Attachment→ Penetration→ Assembly
 - c. Attachment→ Alteration→ Penetration→ Assembly → Release
 - d. Alteration→ Attachment → Assembly→ Penetration→ Release

8. Which of the following exhibits the highest phagocytic activity?
 - a. Neutrophils
 - b. Erythrocytes
 - c. Lymphocytes
 - d. Eosinophils

9. Methanogenic bacteria are archaeobacteria that are
 - a. Obligate anaerobes that produce methane
 - b. Obligate anaerobes that consume methane
 - c. Obligate aerobes that produce methane
 - d. Obligate aerobes that consume methane

10. Which of these is associated with a form of liver cancer?
 - a. Human papilloma virus
 - b. Hepatitis B virus
 - c. Human T- cell lymphotropic virus
 - d. Hepatitis A virus