

MICR 201- Applied Microbiology and Infection Control including Safety

Maximum: 75 Marks

Section - A : Applied Microbiology (37 Marks)

(6 x 1 = 6 Marks)

- Which morphological type of bacteria is spiral-shaped?
 - Coccus
 - Bacillus
 - Vibrio
 - Spirillum
- Which of the following is an essential element for microbial growth?
 - Sodium (Na)
 - Nitrogen (N)
 - Helium (He)
 - Argon (Ar)
- Which parasitic disease is transmitted by mosquitoes?
 - Leishmaniasis
 - Malaria
 - Chagas disease
 - Sleeping sickness
- Which of the following structures is present in both Gram-positive and Gram-negative bacteria?
 - Microorganisms are ubiquitous in nature
 - Microorganisms are not ubiquitous in nature
 - Microorganisms do not evolve over time
 - Microorganisms evolve over time
- Which immunoglobulin is primarily responsible for allergic reactions?
 - Ig
 - IgE
 - IgG
 - IgM
- Which type of immunity is conferred by vaccines?
 - Passive natural immunity
 - Passive artificial immunity
 - Active natural immunity
 - Active artificial immunity

(3 x 2 = 6 Marks)

- Microorganisms require nitrogen for growth. Give reason.
- Explain bacteriophage.
- Name two fungal infections that affect the skin.
- Define innate immunity.

(3 x 5 = 15 Marks)

- Give a note on bacterial colonization.
- Differentiate selective media and enrichment media.
- Discuss the importance of immunity.
- Write the difference between humoral and cell-mediated immunity.

(10 x 1 = 10 Marks)

Marks

10

10

Section - B : Infection Control including Safety (38 Marks)

PART – E: (Multiple Choice Questions)

(7 x 1 = 7 Marks)

Q. 5 Answer ALL questions

- a. Factors influencing the nosocomial infection are:
- | | |
|----------------------------|----------------------|
| I) Patients susceptibility | II) Microbial agent |
| III) Environmental factors | IV) All of the above |
- b. Which of the following cannot be transmitted via infectious droplets
- | | |
|------------------|-----------------------|
| I) Rubella | II) Influenza |
| III) Common cold | IV) None of the above |
- c. How many moments of hand hygiene are there
- | | |
|------------|----------|
| I) Two | II) Four |
| III) Three | IV) Five |
- d. ABHR stands for
- | | |
|-------------------------------|----------------------------|
| I) Alcohol based hand regimen | II) Alcohol be hand rest |
| III) Alcohol based hand right | IV) Alcohol based hand rub |
- e. Disinfectant that kills the bacteria are known as
- | | |
|-----------------|-------------------|
| I) Bactericidal | I) Bacteriostatic |
| II) Both A&B | II) None of these |
- f. Alcohols are an example of
- | | |
|---------|-------------------|
| I) HLD | I) LLD |
| II) ILD | II) None of these |
- g. What is the purpose of CSSD
- | | |
|-------------------------------|---|
| I) Storage of clean equipment | I) Providing sterile equipment to operation theatre |
| II) Storing sterile equipment | II) Pharmacy of the operation theatre |

PART – F: (Very Short Answer Questions)

(3 x 2 = 6 Marks)

Q.6. Answer ANY THREE questions

- Define radiation safety.
- List out the colour coded waste containers.
- Explain about the anti-microbial resistance.
- Describe laser safety.

PART – G: (Short Answer Questions)

(3 x 5 = 15 Marks)

Q.7. Answer ANY THREE questions

- Define NSI and explain the post-exposure prophylaxis for NSI.
- Explain in details about MDRO with its prevention.
- Explain specimen and the types of specimen collection.
- Briefly explain BMW.

PART – H: (Long Answer Questions)

(10 x 1 = 10 Marks)

Answer ALL questions

- | | |
|---|---|
| 8.a. Define HAI. | 2 |
| b. Elaborate the bundle approach for HAI with advantages and disadvantages. | 8 |
| (OR) | |
| c. Write on hand hygiene. | 2 |
| d. Explain the types of hand hygiene and write a roles and responsibilities of a nurse during hand hygiene. | 8 |

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