

1.5 State how you would differentiate microorganisms mentioned in 1.2. by their Gram stain appearance. (15 marks)

Organism.	Gram-stain appearance
i.	
ii.	
iii.	

1.6 Name **two (2)** antimicrobial agents recommended in the empirical treatment for the condition mentioned in 1.1. (10 marks)

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.....

1.7 State **two (2)** complications that can occur due to the condition mentioned in 1.1. (10 marks)

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Question 2

22nd August 2023

Answer all questions in the space provided

10.30 a.m. to 12.30 p.m. (2 hours)

Index number.....

1. Scenarios related to the management of infectious diseases including infection prevention and control are given below.

2.1 **A medical student developed fever and vesicular rash over her trunk which became pustular later.**

2.1.1 State the most likely clinical condition in this student and the causative agent. *(10 marks)*

.....

2.1.2 State how this condition could be transmitted to others. *(02 marks)*

.....

2.1.3 List **two (2)** factors that would help to assess the susceptibility of this student's close contacts. *(08 marks)*

.....

2.1.4 Outline **three (3)** methods of postexposure prophylaxis that could prevent this condition. *(15 marks)*

.....

2.2. Needle prick injury in a student nurse while drawing blood from a patient.

2.2.1. List **three (3)** measures that should be adopted following a needle prick injury. (09 marks)

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.....

2.2.2. List **three (3)** infections that can be transmitted due to this incident? (09 marks)

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.....

2.2.3 State the vaccine available to prevent one of the infections mentioned in 2.2.2. (02 marks)

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2.2.4 State the schedule of this vaccine stated in 2.2.3 that is recommended for health care workers. (06 marks)

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.....

2.2.5 State **three (3)** precautions that should be taken to prevent a needle prick injury? (09 marks)

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.....

Index No:.....

2.3. Surgical scissors used in the operating theatre.

2.3.1 State how the above instruments are decontaminated. *(05 marks)*

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2.3.2 State how the above instruments are sterilized giving the sterilization conditions. *(08 marks)*

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2.3.3 State how you would monitor the efficacy of the process mentioned in 2.3.2 giving examples. *(09 marks)*

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2.3.4 Outline how the sterile instruments are stored in the theater until used. *(08 marks)*

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Question 3

22nd August 2023

Answer all questions in the space provided

10.30 a.m. to 12.30 p.m. (2 hours)

Index number.....

3.1

3.1.1 Name three (3) antibiotics in the carbapenem group. (06 marks)

.....

3.1.2 Outline the mechanism of action of carbapenems. (08 marks)

.....

3.1.3 List three (3) clinical conditions in which carbapenem drugs are used. (06 marks)

.....

3.1.4 List three (3) bacterial pathogens against which carbapenem drugs are recommended. (06 marks)

.....

3.1.5. Write two (2) side effects of carbapenem group of drugs. (04 marks)

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3.2.

3.2.1. Define hypersensitivity. (05 marks)

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3.2.2. Outline the immunological basis of Type I hypersensitivity. (08 marks)

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3.2.3. List three (3) clinical conditions that occur due to type I hypersensitivity. (08 marks)

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3.2.4 State the drug and its strength, dose/volume and the route of administration used in the management of life threatening type I hypersensitivity reaction. (09 marks)

Drug & its strength

Dose/volume

Route of administration

3.3

3.3.1 Name the causative pathogen of leptospirosis. (04 marks)

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3.3.2 Outline the pathogenesis of leptospirosis. (10 marks)

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3.3.3 List **two (2)** microbiological investigations useful in the diagnosis of leptospirosis. (04 marks)

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3.3.3 Write **three (3)** antibiotics that are recommended in the treatment of leptospirosis. (09 marks)

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3.3.4 List **three (3)** complications of leptospirosis. (06 marks)

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3.3.5 Name the antibiotic prophylaxis recommended in the high risk individuals. (02 marks)

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Question 4

22nd August 2023

Answer all questions in the space provided

10.30 a.m. to 12.30 p.m. (2 hours)

Index number.....

4. Three clinical syndromes are given below.

4.1 Pityriasis versicolor

4.1.1 Name the aetiological agent of this condition. (05 marks)

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4.1.2 Outline the collection and transport of relevant specimen. (12 marks)

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4.1.3 State the microbiological investigation and expected results that would help in the diagnosis. (09 marks)

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4.1.4 Name **one (1)** antimicrobial agent used in the treatment of this condition. (04 marks)

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4.2 A-55-year-old smoker complains of cough and evening pyrexia for 3 weeks with loss of weight.

4.2.1 Name the most likely clinical diagnosis. *(03 marks)*

.....

4.2.2 List three (3) causative agents of this condition. *(06 marks)*

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4.2.3 List three (3) microbiological investigations that would help in the diagnosis mentioned above. *(06 marks)*

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4.2.4 Outline the collection and transport of the relevant specimen. *(15 marks)*

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Index number:.....

4.3. An adult male returning after a pilgrimage in India presents with profuse watery diarrhoea.

4.3.1 Name the most likely clinical diagnosis and the causative agent? *(06 marks)*

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4.3.2 List the microbiological investigations that could be performed to diagnose this condition. *(04 marks)*

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4.3.3 Outline the collection and transport of the relevant specimen. *(15 marks)*

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4.3.4 Name **two (2)** complications that can occur in this patient. *(04 marks)*

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4.3.5 List **three (3)** important measures to control this infection. *(06 marks)*

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