



Name :

Roll No. :

Invigilator's Signature :

CS/B.Sc. (H), MicroBio/SEM-6/MDM-602/2011

2011

MEDICAL MICROBIOLOGY

Time Allotted : 3 Hours

Full Marks : 70

The figures in the margin indicate full marks.

*Candidates are required to give their answers in their own words
as far as practicable.*

GROUP – A

(Multiple Choice Type Questions)

1. Choose the correct alternatives for any *ten* of the following :

$10 \times 1 = 10$

- i) All the following locations in the human body have a normal flora *except*
 - a) the skin and mucous membrane
 - b) the respiratory tract
 - c) the external positions of the eyes
 - d) the liver.
- ii) Bacteria belongs to Group A, Beta-hemolytic streptococci is
 - a) *Streptococcus pneumoniae*
 - b) *Streptococcus faecalis*
 - c) *Streptococcus mutans*
 - d) *Streptococcus pyogenes.*

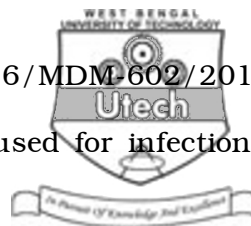
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[Turn over



- iii) Consistent resident of the small intestine bacteria is
- E.coli*
 - Bacteroides*
 - Bifidobacterium bifidum*
 - Enterobacter*.
- iv) Bacteria in the oral cavity contribute to acid formation that leads to dental caries is
- Lactobacilli
 - Lactobacillus acidophilus*
 - Streptococcus mutans*.
- v) Bacteria use as the standard indicator of fecal pollution is
- E.coli*
 - Enterococcus faecalis*
 - Streptococcus mutans*
 - Streptococcus faecalis*.
- vi) Aflatoxin is produced by
- Amanita phalloides*
 - Aspergillus flavus*
 - Salmonella*
 - Shigella*.
- vii) Diseases acquired in hospitals or from health care workers are termed as
- Nosocomial diseases
 - Infectious diseases
 - Airborne diseases
 - Respiratory infections.
- viii) Non-venereal infection of gonococci is
- Salpingitis
 - Urethritis
 - Respiratory infection
 - Ophthalmia.
- ix) Causative agent of Syphilis is
- Rickettsiae*
 - Corynebacterium diphtheriae*
 - Streptococcus pyogenes*
 - Trepanoma pallidum*.

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- x) Amikacin or Gentamicin commonly used for infections caused by
- a) Gram-negative bacteria
 - b) Gram-positive bacteria
 - c) Gram-positive and Gram-negative bacteria
 - d) Fungal infection.
- xi) Disease stays in population at low frequency is termed as
- a) Endemic
 - b) Epidemic
 - c) Pandemic
 - d) Prevalent.
- xii) Ability of pathogen to establish infection is
- a) Infectivity
 - b) Prevalence
 - c) Toxigenicity
 - d) Virulence.

GROUP – B

(Short Answer Type Questions)

Answer any *three* of the following. $3 \times 5 = 15$

- 2. What is toxin ? What is the difference between exotoxin and endotoxin ? 5
- 3. Briefly describe the use of sulphur drugs. 5
- 4. What are the roles of normal microflora in human body ? 5
- 5. What is the mechanism of action of griseofulvin ? 1 + 4
- 6. Write down the mode of phage encoded shiga toxins. 5



GROUP – C

(Long Answer Type Questions)

Answer any *three* of the following. $3 \times 15 = 45$

7. Give a brief account of sexually transmitted diseases. Explain the Gonorrhoea symptoms and treatment. Explain the Syphilis Prevention and Treatment. $4 + 6 + 5$
8. What are the Antibiotics produced by bacteria ? What is chemotherapy ? How fungi are used in chemotherapy ? $5 + 4 + 6$
9. Write short notes on any *three* of the following : $5 + 5 + 5$
 - a) Plasmid-borne multiple drug resistance
 - b) Amoebiasis and Giardiasis
 - c) Diseases by airborne pathogens
 - d) Hantavirus pulmonary syndrome
 - e) Reemerging infectious diseases.
10. Name the microorganisms which cause rabies. What is its mode of action within the body ? How can it be prevented ? Is the disease contagious ? $2 + 8 + 3 + 2$
11. Distinguish between pathogenicity and virulence. What are the virulence factors for *Yersinia pestis* ? How is it transmitted into human body ? What are the symptoms revealed by this pathogen after infection ? $3 + 6 + 2 + 4$