



Name :

Roll No. :

Invigilator's Signature :

CS/B.OPTM/SEM-3/BO-303/2011-12

2011

**MEDICAL PATHOLOGY & MICROBIOLOGY
(GENERAL & OCULAR)**

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 :

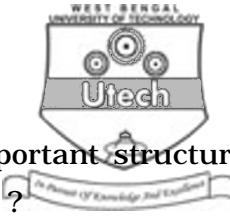
10 × 1 = 10

- i) Facultative anaerobic bacteria
 - a) do not tolerate oxygen
 - b) require low level of oxygen to grow
 - c) can be grown anaerobically as well as aerobically
 - d) none of these.

- ii) Immunological surveillance is the function of
 - a) antibody
 - b) antigen
 - c) all lymphocytes
 - d) natural killer cells.

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[Turn over



- iii) Which of the following is the most important structure related to microbial attachment to cells ?
- a) Flagellum
 - b) Plasmid
 - c) Peptidoglycan
 - d) Glycocalyx.
- iv) Which of the following diseases and bacteria are matched up incorrectly ?
- a) Cellulitis — *Pasteurella multocida*
 - b) Tularemia — *Francisella tularensis*
 - c) Gastritis — *Helicobacter pylori*
 - d) Lyme disease — *Yersinia pestis*.
- v) All are DNA containing virus *except*
- a) Pox virus
 - b) Herpes virus
 - c) Adeno virus
 - d) Polio virus.
- vi) AIDS is caused by Human Retro Virus that kills
- a) B — lymphocytes
 - b) Lymphocyte stem cell
 - c) CD-4 positive T Lymphocyte
 - d) CD-8 positive T Lymphocyte.
- vii) Hassall's corpuscles is found in
- a) lymph node
 - b) spleen
 - c) thymus
 - d) blood vessels.



- viii) Bacterial spores are killed by
- a) boiling
 - b) filtration
 - c) autoclaving
 - d) none of these.
- ix) the full form of CD receptor protein is
- a) clotting designator
 - b) cluster designator
 - c) clump designator
 - d) constrictor designator.
- x) Increase in the size of a tissue as a result of increased number of component cells is called
- a) atrophy
 - b) hypertrophy
 - c) hyperplasia
 - d) hypotrophy.
- xi) Which of the following is not fungal related ?
- a) Cryptococcus neoformans
 - b) Candida albicans
 - c) Tinea nigra
 - d) Chlamydia.

GROUP - B

(Short Answer Type Questions)

Write short notes on any *three* of the following. $3 \times 5 = 15$

2. Describe structure and function of lymphnode.
3. Polio virus
4. Ischaemia and infarction
5. Innate immunity.

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GROUP - C

(Long Answer Type Questions)

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

6. Explain spore formation of bacteria. What are the factors responsible for bacterial growth ? Discuss the classification of virus. $6 + 5 + 4$
7. Define and classify immunity. Describe the type IV hypersensitivity reaction. $8 + 7$
8. a) What are the different types of sterilisation procedures ? Briefly discuss sterilisation.
- b) Discuss sterilisation by autoclaving.
- c) Name three chemical disinfections. $7 + 5 + 3$
9. a) Discuss viral genome and replication.
- b) Discuss briefly life cycle of HIV.
- c) Discuss hepatitis virus. $5 + 6 + 4$
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