

Name :

Roll No. :

Invigilator's Signature :

CS/PHMC/SEM-3/PHMC-301/2009-10

2009

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.*

Answer Question No. 1 and any *five* from the rest.

1. Choose the correct alternatives for the following : $10 \times 1 = 10$

i) Coagulase test determines the virulence property of

- a) *Mycobacterium tuberculosis*
- b) *Streptococcus viridance*
- c) *Staphylococcus aureus*
- d) None of these.

ii) Niacin test differentiate between

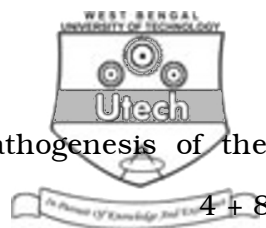
- a) *Mycobacterium tuberculosis*
- b) *Mycobacterium bovis*
- c) none of these.



- iii) A case is diagnosed as AIDS only when
 - a) CD4 cell count is above 500
 - b) CD4 cell count is below 50
 - c) HIV antibody is present
 - d) all of these.
- iv) A rising titre in the specific antibody level in blood determines
 - a) current infection b) past infection
 - c) unrelated infection d) all of these.
- v) *Plasmodium vivax* infection causes
 - a) Benign tertian malaria
 - b) Malignant tertian malaria
 - c) Quartan malaria
 - d) None of these.
- vi) A dimer can be found in
 - a) Ig G b) Ig M
 - c) Ig A d) Ig D.
- vii) Virulence of *C. diphtheriae* is attributed to
 - a) bacteriophage mediated exotoxin of the bacteria
 - b) endotoxin of the bacteria
 - c) plasmid mediated fimbria of the bacteria
 - d) none of these.



- viii) Type I Hypersensitivity is mediated by
- Sensitised T lymphocytes
 - Ig A
 - Ig E
 - Ig G.
- ix) Rheumatic fever & Rheumatic heart disease follows
- infection by *Staph. aureus*
 - infection by *Strepto. pyogenes*
 - infection by *Strepto. Pneumoniae*
 - none of these.
- x) A Dimorphic fungus is
- that does not grow in culture
 - that has two different morphologies at two different temperatures
 - that has two different morphologies at same temperature
 - all of these.
2. Write short notes on any *three* of the following : 3 × 4
- α -haemolysis
 - O-F test
 - Pyocyanin
 - HAV
 - Dermatophytes.



3. What is enteric fever ? Describe the pathogenesis of the disease. 4 + 8
4. Mention the different methods by which you can demonstrate a virus. 12
5. Describe Type III hypersensitivity reactions. 12
6. Describe the diseases caused by *Entamoeba histolytica* in man. 12
7. Describe the agents causing Viral diarrhoea. How will you proceed to diagnose such a case ? 6 + 6
8. Comment any *three* on the following statements : 3 × 4
- a) Biological waste management is an important parameter of hospital or laboratory set up.
 - b) *Mycobacterium leprae* has certain unique properties.
 - c) *Pseudomonas aeruginosa* is not a member of Enterobacteriaceae.
 - d) Dengue fever is an ARBO viral disease.
 - e) Man is the dead end for Hydatid disease.