

Higher Secondary Second Year

Micro Biology

Model Question Paper – 3

Time : 2.30Hrs

Marks : 70

**Part I**

**Answer all the questions**

**Choose the most suitable answer**

**15x1=15**

- 1) Complete detail of a living cell is detectable under
  - (a) Phase contrast Microscope
  - (b) Electron Microscope
  - (c) Dark Field Microscope
  - (d) Fluorescent Microscope
- 2) Amphibolic cycle is also called as?
  - i) Kerb cycle      ii) Citric acid cycle      iii) TCA Cycle
  - (a) i and ii
  - (b) ii and iii
  - (c) i, ii and iii
  - (d) i and iii
- 3) The highest percentage of gas present in the atmosphere is
  - (a) CO<sub>2</sub>
  - (b) O<sub>2</sub>
  - (c) N<sub>2</sub>
  - (d) SO<sub>2</sub>
- 4) Citric acid is recovered by adding
  - (a) Calcium and sulfuric acid
  - (b) Calcium and Hydrochloric acid
  - (c) Sodium and sulfuric acid
  - (d) Sodium and sulfuric acid
- 5) Lancefield grouping is based on \_\_\_\_\_
  - (a) Antigenic difference
  - (b) structural difference
  - (c) difference in haemolysis
  - (d) difference in chain length
- 6) The somatic antigen is
  - (a) O antigen
  - (b) H antigen
  - (c) F antigen
  - (d) K antigen
- 7) Hepatitis A virus belongs to the family
  - (a) Retroviridae
  - (b) Picornaviridae
  - (c) Calciviridae
  - (d) Hepadna viridae
- 8) HIV attaches to the CD<sub>4</sub> receptor of
  - (a) T. helper lymphocytes
  - (b) Platelets
  - (c) B. cells
  - (d) RBC
- 9) Endogenous antigen presentation is associated with which of the following molecules?
  - (a) MHC I
  - (b) MHC II
  - (c) MHC III
  - (d) all the above
- 10) How many different types of heavy chains are seen in immunoglobulin?

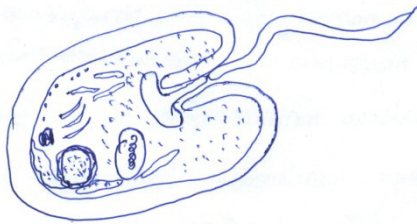
- (a) Two (b) Three  
(c) Four (d) Five
- 11) Who discovered the structure of DNA?  
(a) Ames and James (b) Watson and Crick  
(c) Nirenberg - Khorana (d) Herbert Boyer
- 12) Plasmids are \_\_\_\_\_ DNA molecules  
(a) Spiral shaped (b) Coiled shaped  
(c) Circular shaped (d) Linear shaped
- 13) For MRSA strains \_\_\_\_\_ is the drug of choice.  
(a) Gentamycin (b) Penicillin  
(c) Ampicillin (d) Vancomycin
- 14) T. solium is otherwise called  
(a) Beef tape worm (b) pork tape worm  
(c) round worm (d) None of the above
- 15) Aerosols are significant in the transmission of the disease of  
(a) digestive system (b) nervous system  
(c) reproductive system (d) respiratory system

### Part – II

Answer any six questions. Question No.16 is compulsory

6x2=12

- 16) What are the uses of different wavelengths of ultra violet rays?  
17) What is Food preservation?  
18) Give the characteristics of Typhoid Bacteria?  
19) List the vectors of Lyme disease?  
20) What is Toxoid? State its characteristics.  
21) What is Wobble hypothesis?  
22) Write a name of the following and label the parts.



- 23) Match the following:  
(1) UGA, UAG and UAA - Initiation codon  
(2) GCA, GCG and GCU - Termination codon  
(3) AUG, GUG and UUG - Sense codon
- 24) Define Metabolism

### Part – III

Answer any six questions. Question No.32 is compulsory

6x3=18

- 25) Write the significance of the transformation.
- 26) List the major classes of Immunoglobulin.
- 27) Write about the treatment of crypto coccosis disease.
- 28) Write a short note on M-like proteins.
- 29) Explain Biopesticides with examples .
- 30) Describe the Koch postulates
- 31) Match the following:-
 

(i) T. bruceigambiense	-	Reduvid bug
(ii) T. cruzi	-	sand fly
(iii) L. donovani	-	Antelope
(iv) T. bruceirhodesiense	-	Glossina palpalis
- 32) What are the four species of slugella genus.
- 33) What are the materials required for wine production?

#### **Part – IV**

**Answer all the questions**

**5x5=25**

- 34) How did Pasteur's famous experiment defeat the theory of spontaneous generation theory?  
(or)  
Describe Nitrogen cycle.
- 35) Explain phenol - co efficient method.  
(or)  
Describe the principle of the Ames test for identifying chemical car cinogens.
- 36) List the differences between elementary and reticulate body.  
(or)  
Describe the pathogenesis of shigellosis
- 37) Describe the Life cycle of Taenia solium.  
(or)  
Write a short note on multiplication of Herbs virus
- 38) Give the characteristics IgM Molecules.  
(or)  
Describe the characteristics TAB vaccine.