SSR DEGREE COLLEGE (AUTONOMOUS) NIZAMABAD
SEM – I INTERNAL – II
MICROBIOLOGY
INTERNAL QUESTION BANK

I. CHOOSE THE CORRECT ANSWERS

1. The host range of a virus refers to
A. Size of the virus
B. Number of genes present
C. Type of hosts a virus can infect
D. Shape of the capsid
✓ Correct Answer: C

2. Viruses are generally measured in the size range of
A. Micrometers
B. Millimeters
C. Nanometers
D. Centimeters
✓ Correct Answer: C

3. Which of the following is NOT a typical shape of viruses?
A. Icosahedral
B. Helical
C. Cuboidal
D. Complex
✓ Correct Answer: C

4. The protein coat surrounding the viral genome is called
A. Envelope
B. Capsid
C. Nucleoid
D. Matrix
✓ Correct Answer: B

5. Capsomeres are
A. Lipid units of envelope
B. Enzymes of virus
C. Structural protein subunits of capsid
D. Viral nucleic acids
✓ Correct Answer: C

6. Icosahedral symmetry of viral capsid contains
A. 6 faces
B. 12 faces
C. 20 faces
D. 32 faces
✓ Correct Answer: C

7. The viral envelope is mainly composed of
A. Proteins only
B. Lipids and proteins
C. Carbohydrates only
D. Nucleic acids
✓ Correct Answer: B

8. Enveloped viruses are generally more sensitive to
A. Heat and detergents
B. Antibiotics
C. UV light only
D. Cold temperature
✓ Correct Answer: A

9. Which enzyme is commonly present in retroviruses?
A. DNA polymerase
B. RNA polymerase
C. Reverse transcriptase
D. Restriction enzyme
✓ Correct Answer: C

10. Viral genome may consist of
A. Only DNA
B. Only RNA
C. Both DNA or RNA
D. DNA and RNA together
✓ Correct Answer: C

11. Light microscopy uses _____ as the source of illumination.
A. Electron beam
B. Laser
C. Visible light
D. UV rays
✓ Correct Answer: C

12. The maximum resolving power of a light microscope is approximately
A. 20 nm
B. 200 nm
C. 2 nm
D. 2 µm
✓ Correct Answer: B

13. Phase-contrast microscopy is mainly used to observe
A. Dead cells
B. Fixed tissues
C. Living unstained cells
D. Fluorescent samples
✓ Correct Answer: C

14. Phase-contrast microscopy works on the principle of
A. Fluorescence emission
B. Electron diffraction
C. Conversion of phase differences into amplitude differences
D. Scanning of surface
✓ Correct Answer: C

15. Fluorescence microscopy requires the use of
A. Ordinary stains
B. Fluorochromes
C. Heavy metals
D. Silver nitrate
✓ Correct Answer: B

16. In fluorescence microscopy, fluorochromes emit light of
A. Same wavelength
B. Shorter wavelength
C. Longer wavelength
D. Random wavelength
✓ Correct Answer: C

17. Transmission Electron Microscopy (TEM) provides information about
A. Surface topography
B. Internal ultrastructure
C. Chemical composition
D. Cell motility
✓ Correct Answer: B

18. Scanning Electron Microscopy (SEM) is best suited for studying
A. Internal organelles

B. Thin sections of cells
C. Surface morphology
D. Living cells
✓ Correct Answer: C

19. Electron microscopes use _____ as a source of illumination.
A. Light rays
B. Laser beams
C. Electron beams
D. X-rays
✓ Correct Answer: C

20. Confocal microscopy improves image quality by
A. Using heavy metal stains
B. Eliminating out-of-focus light
C. Increasing specimen thickness
D. Reducing magnification
✓ Correct Answer: B

II. FILL IN THE BLANKS

1. The constant presence of a disease in a particular geographical area is called _____.
Answer: Endemic

2. A sudden increase in the number of disease cases above normal level is known as _____.
Answer: Epidemic

3. Occurrence of a disease at irregular intervals and low frequency is termed _____.
Answer: Sporadic

4. A disease that spreads across many countries or continents is called a _____.
Answer: Pandemic

5. The person or object from which an infectious agent is directly transmitted is called the _____.
Answer: Source

6. The natural habitat where a pathogen normally lives and multiplies is called the _____.
Answer: Reservoir

7. An individual who harbors the pathogen without showing symptoms is known as a _____.
Answer: Carrier

8. The sequence of events from entry of pathogen to its spread to another host is called the _____ disease cycle.
Answer: Infectious

9. The route through which a pathogen enters a susceptible host is known as the _____ of entry.
Answer: Portal

10. Transmission of diseases through coughing and sneezing is classified as _____ transmission.
Answer: Airborne

11. Cholera and typhoid are examples of _____ borne diseases.
Answer: Water

12. Infections acquired in hospitals are referred to as _____ infections.
Answer: Nosocomial

13. Prolonged hospital stay increases the risk of _____ infections.
Answer: Nosocomial

14. Improper sterilization of medical instruments can lead to _____ infections.
Answer: Hospital-acquired / Nosocomial

15. Separation of infected individuals from healthy people is called _____.
Answer: Isolation

16. Restriction of movement of exposed but healthy individuals is known as _____.
Answer: Quarantine

17. Vaccination helps in preventing the _____ of infectious diseases.
Answer: Spread

18. Tuberculosis is an _____ borne bacterial disease.
Answer: Air

19. Typhoid fever is caused by the bacterium _____.
Answer: Salmonella typhi

20. Polio is mainly transmitted through _____ and food contaminated with feces.

Answer: Water

III. LONG QUESTION AND ANSWERS

1) Write about the applications of viruses in Biotechnology?
2) Define the terms Endemic, epidemic, pandemic and sporadic?
3) Write a brief note on Air borne disease - tuberculosis?
4) Explain the chemical methods of sterilization?
5) Define Microbiome and explain its role in human health?