

## Microbiology

1) Which type of the following biological vectors is responsible for transmission of malarial parasite-

- A) Cyclo-developmental
  - B) Propagative
  - C) Transovarial
  - D) Cyclo-propagative
- 

2) Which of the parasites below is NOT having any intermediate host-

- A) *Hymenolepis diminuta*
  - B) *Clonorchis sinensis*
  - C) *Necator americanus*
  - D) *Loa loa*
- 

3) Which of the following parasite DOES NOT belong to the class Coccidia-

- A) *Cryptosporidium*
  - B) *Isospora*
  - C) *Babesia*
  - D) *Cyclospora*
- 

4) Which of the following is NOT correct-

- A) *E. histolytica* can be cultured on Boeck & Drbohlav's diphasic medium
  - B) *T. vaginalis* can be cultured on Trussell & Johnson's medium / CPLM
  - C) *L. donovani* can be cultured on Hockmeyer's medium
  - D) *T. cruzi* can be cultured on Weinman's medium
- 

5) DumDum fever is the name given to-

- A) Visceral leishmaniasis
  - B) New world leishmaniasis
  - C) South American trypanosomiasis
  - D) East African sleeping sickness
- 

6) Montenegro test is used to diagnose-

- A) Kala azar
  - B) *Ecchinococcosis*
  - C) Chagas disease
  - D) *Toxoplasmosis*
- 

7) Which of the following organisms can infect and multiply inside Protozoa-

- A) *Mycobacterium bovis*
  - B) *Mycobacterium avium*
  - C) *Mycobacterium xenopi*
  - D) *Mycobacterium simiae*
- 

8) Oocysts of which of the following parasites are infective when passed in the faeces-

- A) *Cyclospora cayetenensis*
- B) *Cryptosporidium parvum*
- C) *Isospora belli*
- D) All of the above

9) Fugitive or Calabar swellings are seen in infection with-

- A) *Onchocerca volvulus*
  - B) *Wuchereria bancrofti*
  - C) *Loa loa*
  - D) *Brugia timori*
- 

10) River blindness is the name given to disease caused by-

- A) *Loa loa*
  - B) *Onchocerca volvulus*
  - C) *Toxoplasma gondii*
  - D) *Acanthamoeba culbertsoni*
- 

11) Operculated eggs are seen in the following, EXCEPT-

- A) *Fasciola hepatica*
  - B) *Schistosoma japonicum*
  - C) *Clonorchis sinensis*
  - D) *Diphyllobothrium latum*
- 

12) Which species of fungus *Microsporium* has characteristic two celled macroconidia-

- A) *Microsporium gypseum*
  - B) *Microsporium audouinii*
  - C) *Microsporium canis*
  - D) *Microsporium nanum*
- 

13) Rose gardner's disease is caused by-

- A) *Paracoccidioides brasiliensis*
  - B) *Sporothrix schenckii*
  - C) *Penicillium marneffei*
  - D) *Coccidioides immitis*
- 

14) Which *Candida* species is known to produce 'pseudo-germ tube'-

- A) *C. dubliniensis*
  - B) *C. tropicalis*
  - C) *C. albicans*
  - D) *C. krusei*
- 

15) Which of the following fungus is NOT forming 'sclerotic bodies'-

- A) *Exophiala*
  - B) *Phialophora*
  - C) *Fonsecaea*
  - D) *Cladosporium*
- 

16) 16- Which of the following dermatophyte is giving a positive hair perforation test-

- A) *Trichophyton tonsurans*
  - B) *Trichophyton schoenleinii*
  - C) *Trichophyton mentagrophytes*
  - D) *Trichophyton verrucosum*
- 

17) Which of the following is NOT causing eumycotic mycetoma-

- A) *Pseudoallescheria boydii*
- B) *Exophiala jeanselmei*
- C) *Acremonium kiliense*
- D) *Actinomyces*

18) Dichotomously branching septate hyphae are characteristically seen in-

- A) *Aspergillus* spp
  - B) *Rhizopus* spp
  - C) *Mucor* spp
  - D) *Absidia* spp
- 

19) 'Spaghetti & meat balls' appearance of fungal elements in 10% KOH are characteristics of-

- A) *Hansenula anomala*
  - B) *Saccharomyces cerevisiae*
  - C) *Malassezia furfur*
  - D) *Exophiala werneckii*
- 

20) Which of the following agent is a fungus-

- A) *Pneumocystis jirovecii*
  - B) *Cryptosporidium parvum*
  - C) *Eikenella corrodens*
  - D) *Ehrlichia chaffeensis*
- 

21) 'Hülle cells' are the characteristic of-

- A) *Aspergillus fumigatus*
  - B) *Aspergillus nidulans*
  - C) *Aspergillus terreus*
  - D) *Aspergillus flavus*
- 

22) In a case of meningitis a normal glucose level in C.S.F. suggests-

- A) Bacterial etiology
  - B) Mycobacterial etiology
  - C) Viral etiology
  - D) Fungal etiology
- 

23) Which of the following is NOT true about *Staphylococcus saprophyticus*-

- A) Commonly causes UTI in young, sexually active, young females,
  - B) It is sensitive to Novobiocin
  - C) It is coagulase negative
  - D) It is modified oxidase test negative
- 

24) Griffith's serotyping of  $\alpha$ -hemolytic streptococci is based on-

- A) Cell wall carbohydrate C antigen
  - B) Cell wall M protein
  - C) Cell wall peptidoglycan
  - D) Cell wall murein
- 

25) Which of the following is NOT true of *B. anthracis*-

- A) It produces Medusa head colony
  - B) It gives positive M'Fadyean's reaction
  - C) It is used as an agent of bioterrorism
  - D) It produces a potential endotoxin
- 

26) Spores of which species of *Bacillus* is used as a biological control in autoclaves-

- A) *B. megaterium*
- B) *B. thuringiensis*
- C) *B. stearothermophilus*
- D) *B. anthracis*

27) Which clostridial species has subterminal endospores-

- A) *C. tetani*
  - B) *C. tertium*
  - C) *C. septicum*
  - D) *C. ramosum*
- 

28) A reverse CAMP test is positive in-

- A) *C. tetani*
  - B) *C. perfringens*
  - C) *C. difficile*
  - D) *C. novyi*
- 

29) Causative agent of granuloma inguinale is-

- A) *Chlamydia trachomatis*
  - B) *Klebsiella rhinoscleromatis*
  - C) *Mycoplasma hominis*
  - D) *Klebsiella granulomatis*
- 

30) Pseudoheoptysis is due to-

- A) Pyomelanin
  - B) Diphthericin
  - C) Prodigiosin
  - D) Fumonisin
- 

31) Which of the following specimen is NOT suitable for anaerobic culture-

- A) Blood
  - B) Culdocentesis aspirate
  - C) Throat swab
  - D) Peritoneal fluid
- 

32) Which of the following is NOT a constituent of bacterial cell wall-

- A) N-acetyl muramic acid
  - B) N-acetyl glucosamine
  - C) N-Acetyl-L-cysteine
  - D) Teichoic acid
- 

33) Which of the following is NOT true-

- A) Transposons are extrachromosomal genetic elements
  - B) Transposons are known as jumping genes
  - C) Transposons can transfer genes of chromosomes
  - D) Like plasmids they exist independently and are self replicating
- 

34) Non-specific urethritis may be caused due to the following, EXCEPT

- A) *Ureplasma urealyticum*
  - B) *Gardnerella vaginalis*
  - C) *Candida albicans*
  - D) *Actinobacillus hominis*
- 

35) Which of the following is NOT true of *Listeria monocytogenes*-

- A) It does not survive inside phagocytes
- B) It gives a positive Anton's test
- C) It has tumbling motility at 25°C
- D) It gives a positive CAMP test

36) Which of the following is TRUE of the *Corynebacterium diphtheriae*-

- A) It produces diphtheria toxin because of phage
  - B) Toxin production is influenced by  $Mg^{++}$  concentration in the medium
  - C) Toxin mainly affects lungs and kidneys
  - D) Toxigenicity can be demonstrated in tissue culture
- 

37) Culture of anaerobic organisms can be done by all ,EXCEPT-

- A) Gas-Pak
  - B) Candle jar
  - C) McIntosh & Fildes jar
  - D) Thioglycollate broth
- 

38) Which of the following is NOT true of the Enterohaemorrhagic *E. coli*(EHEC)-

- A) The most common serotype is O157: H7
  - B) It can cause Hemolytic Uremic Syndrome
  - C) It ferments Sorbitol sugar in the medium
  - D) It produces toxin which is toxic to HeLa cell lines
- 

39) Shigellosis includes all of the following, EXCEPT-

- A) Hemolytic Uremic Syndrome
  - B) Gay-bowel syndrome
  - C) Fitz-Hugh-Curtis syndrome
  - D) Intussusception of bowel
- 

40) According to current W.H.O. classification of genus *Salmonella*, there are mainly two species-

- A) *S. enterica* & *S. arizonae*
  - B) *S. arizonae* & *S. enteritidis*
  - C) *S. bongori* & *S. enterica*
  - D) *S. bongori* & *S. typhi*
- 

41) Gram stained smear of *Vibrios* in mucus flakes of stool specimen resembles-

- A) School of fish appearance
  - B) Fish in stream appearance
  - C) Sea-gull appearance
  - D) String of pearls appearance
- 

42) Which of the following organisms is responsible for Brazilian Purpuric Fever(BPF)-

- A) *Hemophilus hemolyticus*
  - B) *Hemophilus aphrophilus*
  - C) *Hemophilus aegyptius*
  - D) *Hemophilus parainfluenzae*
- 

43) Which of the organisms below does NOT liquefy gelatin-

- A) *Morganella morganii*
  - B) *Bacillus subtilis*
  - C) *Proteus vulgaris*
  - D) *Staph. aureus*
- 

44) Which one of the following are NOT related to each other-

- A) Nagler's reaction & *Clostridium perfringens*
- B) Nissl's bodies & Polio virus
- C) Tunica reaction & *Rickettsia prowazekii*
- D) Rat bite fever & *Streptobacillus moniliformis*

45) Which of the following is NOT commonly seen in HIV infected patients-

- A) Bacillary angiomatosis
  - B) Generalised Strongyloidiasis
  - C) Cryptosporidiosis
  - D) Leptospirosis
- 

46) Which of the following organisms is NOT associated with bloody diarrhea-

- A) *Shigella dysenteriae*
  - B) *Campylobacter fetus*
  - C) *Clostridium difficile*
  - D) *B.anthraxis*
- 

47) Which of the following is NOT a cell wall constituent of mycobacteria-

- A) N-acetylmuramic acid
  - B) N-glycolylmuramic acid
  - C) Mycolic acid
  - D) Teichoic acid
- 

48) Which of the following is a member species of *Mycobacterium tuberculosis* complex-

- A) *M.ulcerans*
  - B) *M.gordonae*
  - C) *M.africanum*
  - D) *M.kansasii*
- 

49) Which of the following *Mycobacterium* is a causative agent of Buruli-ulcer -

- A) *M.avium intracellulare*
  - B) *M.xenopi*
  - C) *M.ulcerans*
  - D) *M.malmoense*
- 

50) Which of the following is NOT a characteristic of *Mycoplasma*-

- A) They belong to the class Mollicutes
  - B) They require sterols for their growth
  - C) Their cell wall contains diaminopimelic acid
  - D) Their colonies have "Fried egg" appearance
- 

51) Which of the following is NOT related to each other-

- A) Ixodides tick and Babesiosis
  - B) Ixodides tick and Lyme disease
  - C) Ixodides tick and Endemic relapsing fever
  - D) Ixodides tick and Tularemia
- 

52) Which of the following is NOT true of *Actinomyces*-

- A) These are strictly aerobic gram positive branching filaments
  - B) They produce sulphur granules
  - C) They cause Actinomycetoma
  - D) They are Non acid fast
- 

53) Which of the following is a high level disinfectant-

- A) Phenol
- B) Gluteraldehyde
- C) Iodophors
- D) Chlorhexidine

54) Which of the following is correct-

- A) Ebola virus is BSL 4 agent and requires Class III BSC to handle in the laboratory
  - B) Ebola virus is BSL 4 agent and requires Class II B3 BSC to handle in the laboratory
  - C) Ebola virus is BSL 3 agent and requires Class III BSC to handle in the laboratory
  - D) Ebola virus is BSL 1 agent and requires Class I BSC to handle in the laboratory
- 

55) Which of the following virus is NOT transmitted through blood-

- A) CMV
  - B) HCV
  - C) BK virus
  - D) Parvovirus B19
- 

56) The maximum permissible bioload in an empty conventional operation theatre should be-

- A) 10 bcp/m<sup>3</sup>
  - B) 35 bcp/m<sup>3</sup>
  - C) 50 bcp/m<sup>3</sup>
  - D) 100 bcp/m<sup>3</sup>
- 

57) In hospital settings air conditioning ducts and cooling towers can be a source of hospital acquired Infection due to-

- A) Methicillin resistant Staph aureus
  - B) Mycobacterium scrofulaceum
  - C) Legionella pneumophila
  - D) Aeromonas hydrophila
- 

58) The proper biomedical waste policy for disposal of Human anatomical and animal waste would be-

- A) Segregation in red bag and deep burial
  - B) Segregation in yellow bag and incineration
  - C) Segregation in puncture proof container and microwaving
  - D) Segregation in blue bag and autoclaving
- 

59) Emerging and re-emerging infectious diseases are characterized by all, EXCEPT-

- A) They have appeared for the first time or existed previously and presently increasing in incidence or Geographical range
  - B) They have developed resistance to drugs
  - C) They are the result of increasing change in ecosystem, deforestation
  - D) They are seldom of Zoonotic origin
- 

60) All of the following are vaccine preventable diseases (VP), EXCEPT-

- A) Measles
  - B) Hepatitis B
  - C) Dengue
  - D) Pertussis
- 

61) Involution forms of bacteria are seen in-

- A) Log phase of bacterial growth curve
  - B) Stationary phase of bacterial growth curve
  - C) Decline phase of bacterial growth curve
  - D) Lag phase of bacterial growth curve
- 

62) Which mechanism of drug resistance to Tetracyclines is exhibited by bacteria-

- A) Active efflux of antibiotic
- B) Altered target enzymes
- C) Poor transport across membrane
- D) Altered ribosomal targets

63) By matching bacterial suspension with 0.5 McFarland turbidity standard corresponds to-

- A)  $0.5-1 \times 10^5$  cfu/ml
  - B)  $1-2 \times 10^8$  cfu/ml
  - C)  $2-3 \times 10^8$  cfu/ml
  - D)  $1-2 \times 10^5$  cfu/ml
- 

64) The Electron microscope was developed by-

- A) Wright 1903
  - B) Frederick W. Twort 1915
  - C) Ernst Ruska 1934
  - D) Frank Burnet 1957
- 

65) Which of the following is NOT true -..

- A) Bollinger bodies are seen in measles virus infection
  - B) Negri bodies are seen in Rabies virus infection
  - C) Guarnieri bodies are seen in vaccinia virus infection
  - D) Cowdry type A bodies are seen in Yellow fever virus infection
- 

66) Owl's eye inclusion bodies are seen in-

- A) Tanapox virus
  - B) Epstein Barr virus
  - C) Cytomegalovirus
  - D) Mumps virus
- 

67) Which of the following is NOT oncogenic-

- A) Hepatitis C virus
  - B) Human Papilloma virus
  - C) Cytomegalo virus
  - D) HIV
- 

68) Which of the following is NOT a gene of HIV-1-

- A) Nef
  - B) Vpx
  - C) Rev
  - D) Vif
- 

69) Which of the following is NOT a human infection cause by slow viruses-

- A) Visna
  - B) PML
  - C) Kuru
  - D) CJ disease
- 

70) Which of the following antiviral agent is part of HAART(Highly Active Antiretroviral Therapy)-

- A) Lamivudine
  - B) Amprenavit
  - C) Saquinavir
  - D) Delavirdine
- 

71) Acute and highly infectious Hepatitis B Virus infection will have serological profile as-

- A) HBsAg +, HBeAg +, Anti-HBcIgM -, Anti-HBs -, Anti-HBe -
- B) HBsAg +, HBeAg +, Anti-HBcIgM +, Anti-HBs -, Anti-HBe -
- C) HBsAg -, HBeAg-, Anti-HBcIgM -, Anti-HBs +, Anti-HBe -
- D) HBsAg -, HBeAg -, Anti-HBcIgG -, Anti-HBs +, Anti-HBe +



72) Lesions on genitalia in case of Chancroid have characteristic features of-

- A) It is painless, circumscribed, indurated, superficial ulcer
  - B) Multiple painful and tender vesicular lesions
  - C) Painless, granulomatous nodule producing deep red sharply defined ulcer
  - D) Multiple, tender, painful, purulent, ragged edges of ulcers
- 

73) Which of the following is NOT causing infection in fetuses-

- A) Toxoplasma gondii
  - B) Parvovirus B19
  - C) Reovirus
  - D) Rubella virus
- 

74) Which of the following viruses are NOT cultivable on tissue cultures-

- A) Rubeola
  - B) Hepatitis B virus
  - C) Respiratory Syncytial Virus
  - D) Ebola virus
- 

75) Which of the following statement regarding sensitivity and specificity of a test is TRUE-

- A) A highly sensitive test would have least number of false negative results
  - B) A highly specific test would have least number of false negative results
  - C) A poorly sensitive test would have more number of true positives
  - D) A poorly specific test would have more number of true positives
- 

76) Von Magnus phenomenon in virus replication is-

- A) Production of non-infective daughter virions
  - B) No release of daughter virions after replication
  - C) Production of ghost virions after replication
  - D) Production of low infectivity daughter virions
- 

77) Which of the following cells is known as Large Granular Lymphocytes-

- A) Plasma cells
  - B) NK cells
  - C) T-cells
  - D) K-cells
- 

78) Which of the following is a Pan T- cell marker-

- A) CD-2
  - B) CD3
  - C) CD19
  - D) CD25
- 

79) Which of the following is NOT a tick borne hemorrhagic fever-

- A) Crimean-congo hemorrhagic fever
  - B) Omsk hemorrhagic fever
  - C) Kyasanur forest disease
  - D) Yellow fever
- 

80) Which of the following statement is TRUE about  $\mu$  and heavy chains of Ig molecule-

- A) Coded in the same site of a chromosome
- B) Coded in the different site of a chromosome
- C) The chains are formed by genetic rearrangement after maturation
- D) Different chains of same Ig are coded by same chromosome

81) The secretory piece of IgA is synthesized in –

- A) T-cells
  - B) B-cells
  - C) Lymph nodes
  - D) Mucosal epithelium
- 

82) Membrane attack complex in complement pathway has-

- A) C5b, C6
  - B) C6, C7
  - C) C8, C9
  - D) C5b, C6, C7, C8, C9
- 

83) All of the following are TRUE about immunologic techniques EXCEPT-

- A) ELISA can detect antigen and antibody both
  - B) Immunofluorescence test uses Fluorescein iso thiocyanate
  - C) Immunoblotting is also called as Northern blotting
  - D) Immunoferritin is used in Immunoelectron microscopy
- 

84) Rheumatoid factor is-

- A) IgD antibody against Fc fragment of IgG
  - B) IgG antibody against Fc fragment of IgG
  - C) IgM antibody against Fc fragment of IgM
  - D) IgE antibody against Fc fragment of IgM
- 

85) At what temperature pasteurization by Flash method is done-

- A) 125° C for 30 sec
  - B) 60° C for 5 min
  - C) 72° C for 15-20 sec
  - D) 120° C for 2 min
- 

86) Phenol Co-efficient indicates-

- A) Efficacy of a disinfectant
  - B) Dilution of a disinfectant
  - C) Quality of a disinfectant
  - D) Purity of a disinfectant
- 

87) Psychrophillic bacteria can grow at temperatures-

- A) 50-60° C
  - B) 20-40° C
  - C) 20° C
  - D) 90° C
- 

88) Dark ground microscopy is needed for all EXCEPT-

- A) *Treponema pallidum*
  - B) *Borrelia recurrentis*
  - C) *Leptospira biflexa*
  - D) *Rickettsia prowazekii*
- 

89) Which species of *Streptococcus* is known as Flesh eating bacteria-

- A) *Streptococcus pyogenes*
- B) *Enterococcus faecium*
- C) *Streptococcus mucilagenosus*
- D) *Streptococcus sanguis*

90) Which is the suitable test to check water bacterology-

- A) Presumptive coliform count
  - B) Total plate count
  - C) Semiquantitative coliform count
  - D) Total fecal Streptococcus count
- 

91) Which of the following is NOT true of C1 esterase inhibitor-

- A) It inhibits Hageman factor
  - B) It inhibits plasmin
  - C) It is alpha-neuraminoglycoprotein
  - D) It inhibits the normal progress of complement cascade
- 

92) Which of the following is NOT an example of molecular mimicry-

- A) Shigella flexneri and HLA B27
  - B) Cosackie B virus and Myocardium
  - C) Corynebacterium diphtheriae and glial cells
  - D) Mycobacterium tuberculosis and joint membranes
- 

93) Which of the following is NOT true -

- A) Alpha feto protein is found in hepatomas
  - B) Carcinoembryonic antigen is found in Colonic cancers
  - C) CA-135 is found in ovarian cancers
  - D) Prostate specific antigen is found in Prostate cancers
- 

94) Which of the following is NOT a method for bacteriological examination of air-

- A) Settle plate
  - B) Slit sampler
  - C) Air centrifuge
  - D) Pour plate method
- 

95) Noguchi's medium is used for the culture of-

- A) Borrelia
  - B) Leptospira
  - C) Brucella
  - D) Francisella
- 

96) Obligate aerobes break down superoxides and hydrogen peroxide due to-

- A) Thermonuclease
  - B) Superoxide dismutase and catalase
  - C) Phosphatase
  - D) Luciferase
- 

97) Which of the following is NOT a recent diagnostic test in microbiology-

- A) Limulus Amoebocyte Lysate(LAL)
  - B) Mass Spectrometry Immuno Assay
  - C) Matrix Assisted Laser Desorption/Ionisation(MALDI)
  - D) Chemiluminescence Immuno Assay
- 

98) Which of the following is an immune complex disease-

- A) Lepromatous leprosy
- B) Farmer's lung
- C) Hemolytic disease of the newborn
- D) Adult Respiratory Distress Syndrome

99) A parasite that must spend at least part of its life cycle on or in a host is called-

- A) Facultative parasite
  - B) Hyperparasite
  - C) Obligate parasite
  - D) Pathogenic parasite
- 

100) The schedule of post exposure active anti Rabies vaccination is-

- A) 0,3,7,14 and 30 day optional
- B) 0,7,14,30 and 90 day optional
- C) 0,3,7,14,30 and 90 day optional
- D) 0,7,14 and 30 day optional