COURSE CODE : 128

Time : 2 Hours

Max : 400 Marks

Instructions to Candidates:

1. Write your Register Number within the box provided on the top of this page and fill in the page 1 of the answer sheet using pen.

2. Do not write your name anywhere in this booklet or answer sheet. Violation of this entails disqualification.

3. Read each question carefully and shade the relevant answer (A) or (B) or (C) or (D) in the relevant box of the ANSWER SHEET using HB pencil.

4. Avoid blind guessing. A wrong answer will fetch you -1 mark and the correct answer will fetch 4 marks.

5. Do not write anything in the question paper. Use the white sheets attached at the end for rough works.

6. Do not open the question paper until the start signal is given.

7. Do not attempt to answer after stop signal is given. Any such attempt will disqualify your candidature.

8. On stop signal, keep the question paper and the answer sheet on your table and wait for the invigilator to collect them.

9. Use of Calculators, Tables, etc. are prohibited.
1. The techniques of sterilization were introduced by
   (A) Louis Pasteur  (B) Robert Koch
   (C) Ferdinand Cohn  (D) John Needham

2. When flagella are distributed all round the bacterial cell the arrangement is known as
   (A) Monotrichus  (B) Lophotrichus
   (C) Amphitrichous  (D) Peritrichous

3. In holder method of Pasteurization, milk and butter are kept at
   (A) 63°C for 30 minutes  (B) 63°C for 60 minutes
   (C) 72°C for 20 minutes  (D) 72°C for 30 seconds

4. Which of the following articles can be sterilized in an autoclave?
   (A) Dressing material  (B) Gloves
   (C) Culture media  (D) All of the above

5. Type I hypersensitivity reaction is mediated by
   (A) IgE  (B) IgG
   (C) IgM  (D) IgD

6. Which of the following bacteria produces coagulase?
   (A) Staphylococcus epidermis  (B) S.aureus
   (C) S. Saprophyticus  (D) S. Hominis

7. The causative agent of Waterhouse-Fredericen’s syndrome is
   (A) Neisseria meningitides  (B) Treponema pallidum
   (C) Streptococcus pyogenes  (D) Staphylococcus aureus

8. Stormy clot reaction is useful in identification of
   (A) Clostridium tetani  (B) C.botulinum
   (C) C.difficile  (D) C.perfringens

9. Humans become infected with Mycobacterium tuberculosis most frequently by
   (A) Contact  (B) Inoculation
   (C) Inhalation  (D) Ingestion
10. Appearance of a hard chancre is characteristic of
   (A) Tertiary syphilis
   (B) Latent syphilis
   (C) Secondary syphilis
   (D) Primary syphilis

11. The most common cause of urinary tract infection is
   (A) Klebsiella pneumonia
   (B) Escherichia coli
   (C) Proteus vulgaris
   (D) Citrobacter freundii

12. Which of the following media can serve as transport medium for Vibrio cholera?
   (A) Selenite F broth
   (B) Tetrathionate broth
   (C) Venkatraman-Ramakrishnan medium
   (D) Nutrient broth

13. Colonies resembling molar teeth are produced by
   (A) Actinomyces israelii
   (B) Nocardia brasiliensis
   (C) N. asteroids
   (D) Actinomadura madurae

14. Negri bodies are found in cells infection with
   (A) Rabies virus
   (B) Vaccinia virus
   (C) Fowlpox virus
   (D) Paramyxovirus

15. What is the route of transmission of rubella virus?
   (A) Conjunctiva
   (B) Genital tract
   (C) Alimentary tract
   (D) Respiratory tract

16. Koplik's spots are characteristic of which of the following infections?
   (A) Mumps
   (B) Measles
   (C) Herpes
   (D) Rubella

17. Which is the commonest mode of transmission of HIV?
   (A) Parenteral
   (B) Sexual
   (C) Perinatal
   (D) Oral

18. Which of the following dermatophyte which can infect skin, hair and nails.
   (A) Trichophyton
   (B) Microsporum
   (C) Epidermophyton
   (D) None of the above
19. Histoplasmosis is acquired from
   (A) Water  (B) Animals
   (C) Soil   (D) Man

20. Which of the following dermatophytes is the most common cause species infecting man?
   (A) Trichophyton rubrum  (B) T. Schoenleinii
   (C) T. Mentagrophytes    (D) M. Canis

21. Amobiasis is an infection of the large intestine in man caused by
   (A) Entamoeba gingivalis  (B) E. Histolytica
   (C) E. Nana              (D) E. Hartmanni

22. Cysts are the infective stage to man in infection with
   (A) Wucheria bancrofti   (B) Plasmodium sp
   (C) Giardia lamblia      (D) Taenia solium

23. Plasmodium falciparum causes
   (A) Benign tertian malaria (B) Ovale malaria
   (C) Quartan malaria       (D) Malignant tertian malaria

24. Hook worm infection in man leads to deficiency of
   (A) Vitamin A             (B) Iron
   (C) Vitamin B12           (D) Folic acid

25. In which of the following conditions the microfilaria is present in peripheral blood?
   (A) Elephantiasis         (B) Allergic manifestations
   (C) Occult filariasis      (D) Classical filariasis

26. The resistance that is transmitted passively to a recipient in the ‘readymade’ form is known as
   (A) Acquired immunity    (B) Passive immunity
   (C) Innate immunity      (D) All of the above

27. The damage to the respiratory epithelium and excessive bronchial secretions caused by
   (A) Primary infection    (B) Secondary infection
   (C) Tertiary infection   (D) All of the above
28. Adenovirus cause infections in
   (A) Intestine                            (B) Bladder
   (C) Respiratory tract                   (D) All of the above

29. The causative agent of syphilis
   (A) Mycobacterium tuberculosis         (B) Vibrio cholera
   (C) Treponema pallidum                 (D) Staphylococcus aureus

30. In which phase of bacterial growth curve, cell division stops
   (A) Lag phase                           (B) Log phase
   (C) Stationary phase                    (D) Decline phase

31. Which of the following is a contribution to Microbiology by Louis Pasteur?
   (A) Anthrax bacilli                     (B) Immunity
   (C) Polio virus                         (D) Candida

32. Primary stain used in Gram’s stain is
   (A) Acid Fuchsin Gram’s                (B) Iodine
   (C) Gentian’s violet                   (D) Malachite green

33. Example of Negative staining is
   (A) Potassium iodide                   (B) India ink
   (C) Acridine orange stain              (D) Acid fast stain

34. Which one of the following is a virulence factor for bacteria?
   (A) Capsule                            (B) Flagella
   (C) Cell membrane                      (D) Cytoplasmic membrane

35. Paul bunnel test is done for diagnosis of
   (A) Infectious mononucleosis           (B) Herpes zoster
   (C) Poliomyelitis                      (D) Rabies

36. Filter sterilization is NOT done for which of the following
   (A) Vaccines                          (B) Serum
   (C) Antibiotic solution                (D) Blood
37. All of the following are a property of Disinfectants EXCEPT
   (A) Should be cheap and easily available
   (B) They are all corrosive to skin
   (C) All antiseptic solutions are disinfectants
   (D) Should be used after diluting at a particular concentration

38. The temperature of the hot air oven suitable for sterilization is
   (A) 100°C for ½ an hour  (B) 55°C for 45 min
   (C) 160 °C for 1 hour       (D) 200 °C for 10 min

39. MacConkey's agar is an example for
   (A) Selective media          (B) Enriched media
   (C) Differential media       (D) Enrichment media

40. Glutaraldehyde solution is used to sterilize
   (A) Endocopes                (B) Glass items
   (C) Rubber and plastic       (D) Operation theatres

41. Robertson’s cooked meat media can be used as all of the following EXCEPT
   (A) Transport media          (B) Storage media
   (C) Anaerobic media          (D) Selective media

42. Mordant used in gram’s stain is
   (A) Gentian violet           (B) Gram’s iodine
   (C) Acetone                 (D) Saffranin

43. What is NOT true about plasmids?
   (A) Transfer of nutrients    (B) Transfer of drug resistance
   (C) Transfer of genetic material (D) Extrachromosomal material

44. Mechanism of genetic transfer can be due to all of the following except following
   (A) Transformation           (B) Transduction
   (C) Conjugation              (D) Mutation

45. The holding time of an autoclave is
   (A) 121 °C for 15 minutes at 15psi  (B) 100 °C for 1 hour at 15psi
   (C) 160 °C for 30 minutes at 15psi  (D) 170 °C for 30 minutes at 15psi
46. Biological indicator for autoclave is
   (A) Clostridium welchi spores (B) Bacillus stercothermophilus spores
   (C) Anthrax bacillus spores (D) Bacillus subtilis

47. Fimbriae of bacteria help in
   (A) Locomotion (B) Phagocytosis
   (C) Attachment (D) Exchange of genetic material

48. The disadvantage of ethylene oxide in sterilization is
   (A) Irritant to the eyes (B) Carcinogenic
   (C) Slow action (D) Corrosive

49. The father of antiseptic surgery is
   (A) Louis Pasteur (B) Antonie von Leewenhoek
   (C) Joseph Lister (D) Robert Kock

50. The following diseases are usually water/food borne EXCEPT
   (A) Cholera (B) Pulmonary tuberculosis
   (C) Enteric fever (D) Bacillary dysentery

51. Staphylococcal toxic syndrome is due to
   (A) Enterotoxin A (B) Enterotoxin D
   (C) Enterotoxin E (D) Enterotoxin F

52. Gas gangrene is caused by
   (A) Clostridium tetani (B) Clostridium perfringens
   (C) Clostridium botulinum (D) Clostridium difficile

53. QUELLUNG REACTION is done to identify which of the following
   (A) Streptococcus pyogenes (B) Streptococcus pneumonia
   (C) Streptococcus mutans (D) Streptococcus viridians

54. One of the following includes the non-suppurative complication of streptococcus pyogenes.
   (A) Pyoderma (B) Acute rheumatic fever
   (C) Ludwig’s angina (D) Erysipelas
55. Elek’s gel precipitation test is for
   (A) Gonorrhoea
   (C) Anthrax
   (B) Diphtheria
   (D) Pneumonia

56. Medusa head appearance of the colony on nutrient agar is seen in
   (A) Staphylococcus aureus
   (C) Bacillus anthracis
   (B) Streptococcus mutans
   (D) Clostridium tetani

57. Nagler reaction is for rapid detection of
   (A) Clostridium perfringens
   (C) Nesseria gonorrhoea
   (B) Cornebacterium diphtheriae
   (D) Streptococcus viridans

58. Oral polio vaccine is a
   (A) Live vaccine
   (C) Toxin
   (B) Killed vaccine
   (D) Toxoid

59. Nissl bodies are seen in
   (A) Rabies
   (C) Influenza
   (B) Polio
   (D) HIV

60. Bullet shaped virus is
   (A) Herpes Virus
   (C) Rabies Virus
   (B) Influenza virus
   (D) Hepatitis virus

61. Hydrophobia is seen in
   (A) Herpes
   (C) Polio
   (B) Hepatitis
   (D) Rabies

62. The confirmatory test for HIV is
   (A) Northern blot
   (C) Southern blot
   (B) Western blot
   (D) Microscopy

63. HIV can be transmitted by all of the following EXCEPT
   (A) Blood transfusion
   (C) Insect bite
   (B) Sexual
   (D) IV drugs users
64. In enteric fever Salmonella may be isolated from
   (A) C.S.F.  (B) Wound
   (C) Blood    (D) Genital secretions

65. Scalded skin syndrome is due to which toxin of staphylococcus aureus
   (A) Epidermolytic toxin  (B) Entero toxin
   (C) Coagulase        (D) Haemolysin

66. Metachromatic granules are seen in
   (A) Corynebacterium diphtheria  (B) Clostridium tetani
   (C) Mycobacterium tuberculosis  (D) Actinomycetes

67. Cryptococcus can be diagnosed by
   (A) Negative staining  (B) Acid fast time
   (C) Silver staining    (D) Wet mount

68. Which of the following is a dimorphic fungi?
   (A) Histoplasma  (B) Candida
   (C) Aspergillus  (D) Mucor

69. Microconidia are abundantly seen in
   (A) Trichophyton rubrum  (B) Epidermophyton floccosum
   (C) Microsporum gypseum  (D) Microsporum nanum

70. Percentage of KOH used to demonstrate fungus from clinical samples is
   (A) 10% KOH  (B) 15% KOH
   (C) 30% KOH    (D) 350% KOH

71. Undisturbed morphology of the fungal growth can be seen by
   (A) Chlamydospore formation  (B) Slide culture technique
   (C) Germ tube technique      (D) Hair balt technique

72. Which of the following is an antifungal agent?
   (A) Ketoconazole  (B) Chloramphenicol
   (C) Zidovidine   (D) penicillin
73. An example of DNA virus is
   (A) Influenza virus          (B) Rabies virus
   (C) Herpes virus           (D) Polio virus

74. The following immunoglobulin involved in allergy is
   (A) Ig G                       (B) Ig E
   (C) Ig M                      (D) Ig A

75. Which of the following hepatitis viruses can be transmitted parenterally?
   (A) Hepatitis B               (B) Hepatitis C
   (C) Hepatitis D              (D) All of the above

76. Molluscum contagiosum is caused by
   (A) Pox virus               (B) Herpes virus
   (C) Adeno virus            (D) Mump virus

77. Movement of bacilli is facilitated by
   (A) Pili                     (B) Flagella
   (C) Capsule                (D) Cytoplasm

78. Serodiagnostic tests in syphilis include
   (A) VDRL                    (B) TPHA
   (C) TPI                     (D) All of the above

79. The common focal pyogenic infection of the skin is caused by
   (A) Pneumococcus            (B) E.coli
   (C) Staphylococcus         (D) H. influenza

80. Enterobacteriaceae include all EXCEPT
   (A) Salmonella              (B) Proteus
   (C) Shigella               (D) Haemophilus

81. The culture medium used for growing tubercle bacillus is
   (A) Nutrient agar          (B) Blood agar
   (C) L.J. Medium            (D) None of the above

128 10
82.  The vaccine used against tuberculosis is
   (A) DPT  (B) BCG
   (C) MMR  (D) None of the above

83.  Pulmonary tuberculosis is commonly caused by
   (A) Mycobacterium tuberculosis  (B) Mycobacterium bivis
   (C) Atypical mycobacteria  (D) All of the above

84.  The selective medium for Vibrio cholera is
   (A) Mac Conkey agar  (B) Chocolate agar
   (C) TCBS medium  (D) DCA medium

85.  Widal test detects antibodies to the following EXCEPT
   (A) ‘Vi’ antigen  (B) Salmonella typhi ‘O’ antigen
   (C) Salmonella typhi ‘H’ antigen  (D) ‘H’ antigen of Salmonella A & B

86.  Lancefield grouping of Streptococci is based on
   (A) ‘M’ Protein  (B) ‘C’ Carbohydrate antigen
   (C) Capsular polysaccharide  (D) Teichoic acid

87.  Drumstick appearance is characteristic of
   (A) Clostridium welchii  (B) Clostridium tetani
   (C) Clostridium difficile  (D) Clostridium botulinum

88.  Rice water stools are characteristic of infection with
   (A) Escherichia coli  (B) Salmonella typhi
   (C) Vibrio cholera  (D) Shigella sonnei

89.  Zoonotic disease among the following is
   (A) Diphtheria  (B) Typhoid
   (C) Leprosy  (D) Leptospirosis

90.  Spirochaetes in wet mount are best visualized by
   (A) Compound microscope  (B) Dissection microscope
   (C) Electron microscope  (D) Dark field microscope

91.  Antibiotic which acts on nucleic acid synthesis of bacteria is
   (A) Penicillins  (B) Aminoglycosides
   (C) Quinolones  (D) Imidazoles
92. Efficacy of a disinfectant is tested by the following methods EXCEPT
   (A) Rideal Walker test       (B) Kelsey-Sykes test
   (C) Kirby Bauer test        (D) Chick Martin test

93. Phage mediated transfer of genes among bacteria is called as
   (A) Conjugation              (B) Transduction
   (C) Transformation          (D) Transposition

94. Example of a mechanical vector among the following is
   (A) Anopheles mosquito       (B) House fly
   (C) Rat flea                (D) Toxic tick

95. Cystoscopes are sterilized by
   (A) Boiling at 100°C         (B) Soap and water
   (C) Glutaraldehyde          (D) Iodine

96. Antibiogram is done in
   (A) Blood agar              (B) Nutrient agar
   (C) Muller-Hinton agar      (D) MacConkey agar

97. The vaccines which are given soon after birth are the following EXCEPT
   (A) Oral polio vaccine       (B) Hepatitis B Vaccine
   (C) Tetanus toxoid          (D) BCG vaccine

98. Spore bearing bacteria is
   (A) Staphylococcus          (B) Rickettsia
   (C) Spheroplasts            (D) Clostridium

99. Post operative wound infections are commonly caused by
   (A) Staphylococcus aureus    (B) Streptococcus pyogenes
   (C) Pseudomonas aeruginosa   (D) Candida albicans

100. Organisms are grown outside the body with the aid of
   (A) Autoclave                (B) Hot air oven
   (C) Incubator               (D) Water bath