

DJMB/19

Sl. No. :

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Number

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2019

**M.D. MICROBIOLOGY
(PG Degree Std.)**

Time Allowed : 3 Hours]

[Maximum Marks : 300

Read the following instructions carefully before you begin to answer the questions.

IMPORTANT INSTRUCTIONS

1. The applicant will be supplied with Question Booklet 15 minutes before commencement of the examination.
2. This Question Booklet contains 200 questions. Prior to attempting to answer, the candidates are requested to check whether all the questions are there in series and ensure there are no blank pages in the question booklet. **In case any defect in the Question Paper is noticed, it shall be reported to the Invigilator within first 10 minutes and get it replaced with a complete Question Booklet. If any defect is noticed in the Question Booklet after the commencement of examination, it will not be replaced.**
3. Answer all questions. All questions carry equal marks.
4. You must write your Register Number in the space provided on the top right side of this page. Do not write anything else on the Question Booklet.
5. An answer sheet will be supplied to you, separately by the Room Invigilator to mark the answers.
6. You will also encode your Question Booklet Number with Blue or Black ink Ball point pen in the space provided on the side 2 of the Answer Sheet. If you do not encode properly or fail to encode the above information, action will be taken as per Commission's notification.
7. Each question comprises four responses (A), (B), (C) and (D). You are to select ONLY ONE correct response and mark in your Answer Sheet. In case you feel that there are more than one correct response, mark the response which you consider the best. In any case, choose ONLY ONE response for each question. Your total marks will depend on the number of correct responses marked by you in the Answer Sheet.
8. In the Answer Sheet there are four circles (A), (B), (C) and (D) against each question. To answer the questions you are to mark with Blue or Black ink Ball point pen ONLY ONE circle of your choice for each question. Select one response for each question in the Question Booklet and mark in the Answer Sheet. If you mark more than one answer for one question, the answer will be treated as wrong. e.g. If for any item, (B) is the correct answer, you have to mark as follows :
(A) ● (C) (D)
9. You should not remove or tear off any sheet from this Question Booklet. You are not allowed to take this Question Booklet and the Answer Sheet out of the Examination Hall during the time of examination. After the examination is concluded, you must hand over your Answer Sheet to the Invigilator. You are allowed to take the Question Booklet with you only after the Examination is over.
10. **Do not make any marking in the question booklet except in the sheet before the last page of the question booklet, which can be used for rough work. This should be strictly adhered.**
11. Applicants have to write and shade the total number of answer fields left blank on the boxes provided at side 2 of OMR Answer Sheet. An extra time of 5 minutes will be given to specify the number of answer fields left blank.
12. Failure to comply with any of the above instructions will render you liable to such action or penalty as the Commission may decide at their discretion.

SEAL

1. The side chain theory of antibody production was proposed by
 (A) Paul Ehrlich (B) Elie Metchnikoff
(C) John Hunter (D) Edward Jenner
2. _____ has a good sterilisation effect on common antibiotic resistant bacteria such as MRSA, VRE and Clostridium difficile.
(A) Glutinaldehyde (B) Orthophthaldehyde
 (C) Peracetic acid (D) Hypochlorous acid
3. The biological control for testing dry heat efficacy are spores of nontoxigenic
(A) Bacillus pumilis
 (B) Clostridium tetani
(C) Bacillus stearothermophilus
(D) Clostridium botulivium
4. The biological control for moist heat sterilization are spores of
(A) Bacillus pumilis (B) Bacillus subtilis
 (C) Bacillus stearothermophilus (D) Bacillus globigi
5. The concentration of sodium hypochlorite solution used to disinfect discard jars is
(A) 1% (B) 5%
 (C) 2.5% (D) 10%
6. Which of the following microorganism possess metachromatic granules?
(A) Bacillus Anthracis
(B) Bordetella Pertussis
 (C) Gardnerella Vaginalis
(D) Proteus Mirabilis

7. Gram negative bacilli may be cultured using
- (A) MacConkey's medium
 - (B) Blood agar media
 - (C) Bile salt agar media
 - (D) Nutrient agar media
8. Which of the following test detects the production of acetoin?
- (A) MR test
 - (B) VP test
 - (C) Indole test
 - (D) Citrate test
9. Transfer of genetic information through free or naked DNA is called
- (A) Conjugation
 - (B) Transformation
 - (C) Transduction
 - (D) Lysogenic conversion
10. Which of the following is a nonsense codon?
- (A) UAA
 - (B) AAG
 - (C) GAU
 - (D) CGA
11. The HLA allele associated with good Pastuer's syndrome is
- (A) DR-2
 - (B) DR-3
 - (C) DR-4
 - (D) DR-3/DR-4

12. Which of the following HLA types is associated with rheumatoid arthritis?
(A) HLA-B27 (B) HLA-DR4
(C) HLA-A1 (D) HLA-DP
13. Which of the following HLA types is associated with Ankylosing spondylitis?
(A) HLA-B27 (B) HLA-DR4
(C) HLA-DD (D) HLA-A1
14. All the following are examples of T-cell sub population except
(A) Plasma cells (B) TH1 cell
(C) CD₄⁺ T helper cell (D) Cytotoxic T lymphocyte
15. The animal used for monoclonal antibodies production is
(A) mouse (B) guinea pig
(C) rabbit (D) rat
16. Phaco anaphylaxis is caused by
(A) Autoimmune response to uvea
(B) Autoimmune response to retinal tissue
(C) Autoimmune response to iris
(D) Autoimmune response to lens protein
17. The technique used for monoclonal antibodies production is called
(A) Hybridoma (B) Rosette formation
(C) Opsonisation (D) Immunofluorescence
18. The following human diseases are associated with super antigens except
(A) Tuberculosis (B) AIDS
(C) Rabies (D) Dengue

19. Which of the following Immunoglobulins is heat labile?
- (A) IgG (B) IgM
(C) IgA (D) IgE
20. Which immunoglobulin class is the most efficient to produce agglutination reaction?
- (A) IgG (B) IgM
(C) IgA (D) IgE
21. Which of the following tests does not use complement?
- (A) T.Pallidum immobilization test
(B) Sabiu-Feldman dye test
(C) Vibricidal antibody test
 (D) Weit felix test
22. The following enzymes are used in ELISA except
- (A) Horse Radish Peroxidase
(B) β -Galactosidase
(C) Alkaline phosphatase
 (D) Acid phosphatase
23. Lepromin test is an example of
- (A) Type I hypersensitivity reaction
(B) Type II hypersensitivity reaction
(C) Type III hypersensitivity reaction
 (D) Type IV hypersensitivity reaction

24. The genes encoding proteins inhibiting excessive cell proliferation are called
- (A) Apoptosis genes (B) Tumor suppressor genes
(C) Proto – oncogenes (D) Allogenes
25. Chadiak – Higashi syndrome is an immuno deficiency diseases which occurs due to
- (A) T cell defects (B) B cells defects
(C) Complement disorder (D) Diminished phagocytic activity
26. All of the following are diseases of combine immuno deficiencies except
- (A) Ataxia telangiectasia (B) Wiskott – Aldrich syndrome
(C) Reticular dysgenesis of de vaal (D) Leukocyte G6PD deficiency
27. The following are the Immunological complications after blood transfusion except
- (A) Allergic reactions
 (B) Human T-Lymphotropic virus infection
(C) Acute hemolytic reaction
(D) Transfusion associated acute lung injury
28. The following are characteristics of Live Vaccines except
- (A) Reverting back to virulent form
(B) Excretion of vaccine virus and transmission to non-immune contacts
(C) Interference by other micro organisms in host
 (D) High stability at room temperature
29. All the following vaccines are to be stored cold but not froyen EXCEPT
- (A) Polio (B) DPT
(C) BCG (D) Hepatitis B

30. All are zoonotic except

- (A) Brucellosis
- (B) Plague
- (C) Tularensis
- (D) Floppy baby syndrome

31. Micrococci are differentiated from staphylococci by

- (A) Of test
- (B) Oxidase test
- (C) PYR test
- (D) Motility test

32. Selective medium for streptococci is

- (A) Milk agar
- (B) Crystal violet blood agar
- (C) Mackonkey agar
- (D) TCBS

33. Drug of choice for Vancomycin Resistant Staphylococcus Aureus (VRSA) is

- (A) Cloxacillin
- (B) Methiclin
- (C) Teicoplanin
- (D) Linezolid

34. Most common organism associated with stitch abscess is

- (A) Staphylococcus epidermidis
- (B) Staphylococcus haemolyticus
- (C) Staphylococcus lugdonensis
- (D) Staphylococcus saprophyticus

35. Sensitivity tests for Mycobacterium tuberculosis are carried out by the following methods EXCEPT
- (A) Absolute concentration method
 - (B) Resistance Ratio method
 - (C) Proportion method
 - (D) Ratio comparative method
36. Providencia sharrtii is sensitive to one of the following disinfectant
- (A) Glutaraldehyde
 - (B) Cefrimide
 - (C) Chlorhexidine
 - (D) Silver sulphonomide
37. PLET medium for Bacillus anthracis contains all EXCEPT
- (A) Polymyxin
 - (B) Lysozyme
 - (C) Lysostaphin
 - (D) Thallus Acetate
38. Shigella dysenteriae Type I is
- (A) Catalase Negative
 - (B) Catalase positive
 - (C) Indole positive
 - (D) Oxidase positive
39. All are true about pneumonic plague EXCEPT
- (A) Spread by droplet infection
 - (B) Cause Haemorrhagic pneumonia
 - (C) Highly infectious
 - (D) It is not fatal
40. True about Francisella tularensis
- (A) Non motile gram positive bacillus
 - (B) Infection of Reticuloendothelial system
 - (C) Motile gram negative bacilli
 - (D) It is not a zoonotic infection

41. Botryomycosis caused by

- (A) Actinomyces israelisi (B) Actinomyces bovis
(C) Nocardia (D) Staphylococcus aureus

42. Anton test is done to diagnose

- (A) Listeriosis (B) Melioidosis
(C) Sarcoidosis (D) Erysipeloid

43. Causative agent of ciliate dysentery is

- (A) Entamoeba histolytica (B) Entamoeba coli
 (C) Balantidium coli (D) Cryptosporidium Parvum

44. Pseudocyst of T.gondii is present in all, except

- (A) Liver (B) Heart
(C) Lymphnode (D) Spleen

45. Causative agent of Oriental sore is

- (A) L.Donovani (B) L.Braziliensis
 (C) L.Tropica (D) T.Cruzi

46. Multiplication of the T.cruzi parasite occurs only at

- (A) Trypomastigote form (B) Amastigote form
(C) Epimastigote form (D) Metacyclic form

47. Terminal-Spined eggs are characteristic of
 (A) *S. haematobium* (B) *S. mansoni*
(C) *S. japonicum* (D) *S. intercalatum*
48. A parasite attacking an unusual host is called as,
(A) Aberrant parasite (B) Accidental parasite
(C) Temporary parasite (D) Wandering parasite
49. The following microfilaria are present both in Blood and Skin,
(A) *Mf. Volvulus* (B) *Mf. Ozzardi*
(C) *Mf. Streptocerca* (D) *Mf. Timori*
50. Which one of the following is the largest intestinal nematode?
(A) *T. Spiralis* (B) *S. Stercoralis*
 (C) *D. Medinensis* (D) *T. Trichiura*
51. The term 'Rat lungworm' is associated with
(A) *Trichinella spiralis* (B) *Toxocara canis*
(C) *Toxocara cati* (D) *Angiostrongylus cantonensis*
52. Habitat of *Trichuris trichiura* is
(A) Duodenum (B) Jejunum
(C) Ileum (D) Caecum
53. The term 'Cat liver Fluke' is associated with
 (A) *Opisthorchis felinus*
(B) *Paragonimus westermani*
(C) *Clonorchis Sinensis*
(D) *F. hepatica.*

54. Which one of the following is called Dog tapeworm?
- (A) D. latum (B) H. diminuta
(C) T. saginata (D) E. granulosus
55. Cysticercoid Larvae development is seen in the life cycle of
- (A) T. saginata (B) T. solium
 (C) H. nana (D) Multiceps
56. Viriod is the
- (A) DNA virus
(B) enveloped DNA virus
 (C) naked small ssRNA without capsid
(D) enveloped RNA virus
57. Dengue virus belong to the family
- (A) Flavi viridae (B) Filo viridae
(C) Calci viridae (D) Toga viridae
58. Human immuno deficiency virus belongs to the family
- (A) Reo viridae (B) Bunya viridae
 (C) Retro viridae (D) Filo viridae
59. The term 'Helical Symmetry' virus is associated with
- (A) Herpes simplex virus
(B) Hepatitis B
(C) Hepatitis A
 (D) Corona virus

60. Cowdry type A inclusion bodies are seen in
- (A) Mumps virus infection
 - (B) Measles virus infection
 - (C) Yellow fever virus infection
 - (D) Rabies virus infection
61. Which of the following viral infection? Produces Negri bodies?
- (A) Ebola virus
 - (B) Corona virus
 - (C) Rabies virus
 - (D) Adeno virus
62. Tbilisi phage typing is employed for typing
- (A) Staphylococcus aureus
 - (B) Brucella
 - (C) Streptococcus viridans
 - (D) Salmonella
63. Antiviral drug Acyclovir and Penciclovir inhibit enzyme
- (A) Viral RNA polymerase
 - (B) Viral DNA polymerase
 - (C) Viral reverse transcriptase
 - (D) None of the above
64. Interferon production not induced by viruses is
- (A) Gamma interferon
 - (B) Alpha and gamma interferon
 - (C) Beta interferon
 - (D) Alpha interferons

65. Which of the following serotypes of adenoviruses causes swimming pool conjunctivitis?
- (A) 7, 3 (B) 3, 7
(C) 13, 7 (D) 3, 17
66. The most common mucosal site affected by Herpes simplex virus type 1 is?
- (A) Mucosa lining respiratory tract (B) Buccal mucosa
(C) Genital mucosa (D) Nasal mucosa
67. The most common site affected by Herpes Zoster is area innervated by which of the following?
- (A) Spinal cord segments D₁ to D₃
(B) Spinal cord segments D₃ to L₂
(C) Spinal cord segments L₃ to L₅
(D) Spinal cord segments D₅ to D₇
68. A rare form of Herpes Zoster affecting facial nerve causing facial palsy with eruption on tympanic membrane and external auditory canal is known as?
- (A) Job's syndrome
(B) Varicella syndrome
(C) Ramsay Hunt syndrome
(D) Severe Acute Respiratory syndrome
69. Which of the following refers to benign warts caused by papilloma virus in young children?
- (A) condyloma acuminatum (B) verruca vulgaris
(C) verruca plana (D) plantar warts
70. Erythema infectiosum is also known as
- (A) Fourth Disease (B) Fifth Disease
(C) Sixth Disease (D) Seventh Disease

71. Hepatitis virus not transmitted by blood and blood products is
(A) Hepatitis B (B) Hepatitis C
(C) Hepatitis G (D) Hepatitis E
72. One of the following statements is false about Kyasanur Forest Disease
(A) It is a Tick borne haemorrhagic fever
(B) Principal vector is *Haemaphysalis spinigera*
(C) It is antigenically related to RSSE complex
 (D) Pigs out as amplifier host
73. Which is the first human disease identified to be associated with a virus?
(A) Dengue
(B) Chihungunya
(C) Erythema infectiosum
 (D) Yellow fever
74. Which of the following viral diseases does not result in haemorrhagic fever?
 (A) Louping ill (B) Ebola
(C) Lassa fever (D) Yellow fever
75. Which of the following is NOT a characteristic feature of AIDS?
(A) Polyclonal B cell activation
 (B) Hypogamma globulinemia
(C) Hypergamma globulinemia
(D) Lymphonemia
76. *Cercopithecus aethiops* is the source of
(A) HIV-1 virus
 (B) HIV-2 virus
(C) Simian immunodeficiency virus
(D) Feline T Lymphotropic virus

77. Dimorphic fungi grow as yeast forms at the following temperature
- (A) 25°C (B) 30°C
 (C) 37°C (D) 14°C
78. Ochratoxins producing fungal species are all except
- (A) *Aspergillus ochraceus* (B) *Aspergillus niger*
 (C) *Fusarium moniliforme* (D) *Penicillium verrucosum*
79. The largest phylum of kingdom fungi is
- (A) Ascomycota (B) Basidiomycota
(C) Deuteromycota (D) Zygomycota
80. The term 'fungus ball' is synonymous with
- (A) *Aspergillus asthma* (B) Invasive aspergillosis
 (C) Aspergilloma (D) Broncho pulmonary aspergillosis
81. All of the following fungi are anthropophilic dermatophytes except
- (A) *Trichophyton rubrum*
(B) *Trichophyton violaceum*
 (C) *Trichophyton verrucosum*
(D) *Microsporun audouinii*
82. Which of the following genus of dermatophytes does not infect nails
- (A) *Trichophyton rubrum*
 (B) *Microsporium*
(C) *Epidermophyton*
(D) *Trichophyton mentagrophytes*

83. Most commonly causative species of CNS Aspergillosis.

- (A) *Aspergillus fumigatus*
- (B) *Aspergillus flavus*.
- (C) *Aspergillus terreus*
- (D) *Aspergillus versicolor*

84. Intestinal candidiasis presenting as diarrhoea is a frequent sequel to

- (A) Diabetes
- (B) Oral antibiotic Therapy
- (C) Corneal infection
- (D) Surgery

85. Coral red Fluorescence seen under wood lamp.

- (A) *Malassezia Furfur*
- (B) *Corynebacterium minutissimum*
- (C) *Microsporum gypseum*
- (D) *Trichophyton schoenleinii*

86. 50 year old male presents with headache vomiting and neck rigidity. India Ink staining of CSF reveals spherical budding yeast cells with clear halo surrounding. What is the etiological agent?

- (A) *Naegleria*
- (B) *Cryptococcus*
- (C) *Chromoblastomycosis*
- (D) *Aspergillus*

87. Acute brucellosis is also known as

- (A) Aluoxic fever
- (B) Filarial fever
- (C) Enteric fever
- (D) Undulant fever

88. All are true about Helicobacter pylori infections except
- (A) Less common in developing countries
 - (B) Highly motile
 - (C) Rapid urease test positive
 - (D) Adenocarcinoma of stomach.
89. Incubation period in gastroenteritis due to salmonella is
- (A) 6-12 hrs
 - (C) 12-36 hrs
 - (B) 12-24 hrs
 - (D) 24-48 hrs
90. Which of the following comes under upper UTI?
- (A) Cystitis
 - (C) Pyelitis
 - (B) Prostatitis
 - (D) Urethritis
91. Most common cause of Bronchiolitis
- (A) Rhinoviruses
 - (B) Influenza viruses
 - (C) Corona viruses
 - (D) Respiratory Syncytial viruses
92. Biochemical analysis of Tubercular Meningitis reveals all of the following except
- (A) CSF pressure : Moderately elevated
 - (B) CSF protein : Markedly increased
 - (C) CSF glucose : Slightly increased
 - (D) Cell count : Increased, lymphocytic
93. How does staphylococcus aureus acquire during resistance?
- (A) Transformation
 - (B) Transduction
 - (C) Mutation
 - (D) Conjugation

94. The mechanism of action of Fluoroquinolone against bacteria is
- (A) Inhibition of RNA synthesis
 - (B) Inhibition of DNA synthesis
 - (C) Inhibition of cell wall synthesis
 - (D) Inhibition of translation
95. Under the Bush – Jacoby – Medeiros Functional classification scheme for β -lactamase enzyme carbapenemase comes under section
- (A) 1
 - (B) 2f
 - (C) 2e
 - (D) 2a
96. The following viruses are emerging zoonotic viruses EXCEPT
- (A) Lassa
 - (B) Hantavirus
 - (C) Marburg
 - (D) Calcivirus
97. Minimum inhibitory concentration of vancomycin to VRSA,
- (A) $> 8 \mu\text{g/ml}$
 - (B) $> 4 \mu\text{g/ml}$
 - (C) $> 2 \mu\text{g/ml}$
 - (D) $> 1 \mu\text{g/ml}$
98. How many maximum antimicrobial disks should be placed on a 100 mm Mueller Hinton agar plate?
- (A) upto 5 disks
 - (B) upto 6 disks
 - (C) upto 7 disks
 - (D) upto 8 disks

99. Which one of the following is not a "nonsense codon"?
- (A) UAA (B) UGG
- (C) UAG (D) UGA
100. Antisepsis in surgery was first introduced by
- (A) Joseph Lister (B) Edward Jenner
- (C) Louis Pasteur (D) Robert Koch
101. 'Schaeffer-Fulton' procedure is used to stain and visualise which bacterial cell organelle?
- (A) Bacterial capsule (B) Bacterial flagella
- (C) Bacterial endospores (D) Bacterial cell wall
102. The foundations of immuno chemistry was laid by the pioneering work of
- (A) Karl Landsteiner (B) Paul Ehrlich
- (C) Frank Burnet (D) Roux and Yersin
103. _____ is called the Father of bacteriology.
- (A) Robert Koch (B) Antony Van Leeuwenhoek
- (C) Robert Hook (D) Louis Pasteur
104. The spontaneous theory of generation of microorganisms was first challenged by
- (A) Leeuwenhoek (B) Francesco Redi
- (C) Robert Hook (D) Galileo
105. Which among the following provides a three dimensional view of the specimen?
- (A) Transmission Electron Microscope (TEM)
- (B) Scanning Electron Microscope (SEM)
- (C) Phase Contrast Microscope
- (D) Darkfield Microscope

106. Peptidoglycan layer of cell wall is thicker in
- (A) Fungi (B) Parasites
 (C) Gram positive bacteria (D) Gram Negative bacteria
107. Which of the following can be visualized by routine gram staining?
- (A) Chlamydia trachomatis
 (B) Actinomycetes naeslundii
(C) Rickettsiae
(D) Treponema pallidum
108. Nocardia species are stained by strong carbolfuchsin and resist decolorisation with
- (A) 0.5% Sulphuric acid (B) 1% Perchloric acid
(C) 2% Activated carbon (D) 0.5% Acetic acid
109. The bacteria which require higher level of carbon dioxide for their growth are known as
- (A) Micro aerophilic bacteria (B) Aerophilic bacteria
(C) Aerobic bacteria (D) Capnophilic bacteria
110. Bacteria which can grow at temperature between 25°C and 40°C are known as
- (A) Mesophiles (B) Thermophiles
(C) Psychrophiles (D) Microthermophiles
111. Streptococcus pyogenes are
- (A) Obligate anaerobe (B) Obligate aerobe
(C) Facultative anaerobe (D) Aerotolerant anaerobe

112. Secretory IgA contains
- (A) Polypeptide
 - (B) Glycine-rich polypeptide
 - (C) Polysaccharide
 - (D) Glycine rich polysaccharide
113. All the following are tumour suppressor genes EXCEPT
- (A) APC
 - (B) NF-1
 - (C) NF-2
 - (D) erb-B
114. All the following are the steps of phagocytoses except
- (A) Recognition
 - (B) Antigen Presentation
 - (C) Engulfment
 - (D) Fusion
115. The condition in which structural or functional damage is produced by the action of immunologically competent cells or antibodies against the normal components of the body is called as
- (A) Acquired immunity
 - (B) Adaptive immunity
 - (C) Auto immunity
 - (D) Innate immunity
116. Ouchterlony procedure is
- (A) Single diffusion in one dimension
 - (B) Double diffusions in one dimension
 - (C) Single diffusion in two dimensions
 - (D) Double diffusions in two dimensions
117. Vaccination induces
- (A) Active natural immunity
 - (B) Passive natural immunity
 - (C) Active artificial immunity
 - (D) Passive artificial immunity

118. Which immunoglobulin class can pass through placenta?

- (A) IgG (B) IgM
(C) IgA (D) IgE

119. Example of a fungal super antigen is

- (A) Candida albicans
 (B) Malassezia furfur
(C) Aspergillus
(D) Cryptococcus capsule

120. First component of complement which binds to antigen-antibody complex in classical pathway is

- (A) Clq (B) Clr
(C) Cls (D) C3

121. Which is the earliest immunoglobulin to be synthesised by the foetus?

- (A) IgG (B) IgM
(C) IgA (D) IgE

122. Which component of complement is present in the highest concentration in the serum?

- (A) C1 (B) C2
 (C) C3 (D) C5

123. Autoantibodies to ribonucleoprotein (RNP) antigens SS-A (RO) and SS-B (La) are produced in which disease
- (A) Sjogren syndrome (B) Systemic sclerosis
(C) Multiple sclerosis (D) Systemic Lupus Erythematosus (SLE)
124. Which class of immunoglobulin mediates Type I hypersensitivity reactions?
- (A) Ig G (B) Ig M
(C) Ig A (D) Ig E
125. Auto antibodies bind to basement membrane antigens on kidney glomeruli and the alveoli. This is the hallmark of
- (A) Good Pasture syndrome (B) Myasthenia gravis
(C) Grave's disease (D) Hashimoto's thyroiditis
126. Anti Citrullinated peptid Antibodies (ACPA) are diagnostic for
- (A) Systemic Lupus erythmatous (B) Rhumatoid arthritis
(C) Sjogren syndrome (D) Scleroderma
127. The ability to respond immunologically to an antigen is conditioned by
- (A) Tumor suppressor (B) Immune response genes
(C) Allogene (D) Histocompatibility gene
128. Which of the following HLA typing given high resolution matching?
- (A) Microcytotoxicity
(B) Mixed lymphocyte reaction
(C) PCR – RELP (Restriction Fragment Length Polymor Phism)
 (D) PCR – DNA sequencing typing
129. Best example of syngeneic graft
- (A) Between dizygotic twins
 (B) Between monozygotic twins
(C) Between two member of same or different species
(D) Between two sites of same person

130. Selective media for *N. gonorrhoea* is

- (A) Thayer Martin medium
- (B) Cooked meat medium
- (C) Blood agar
- (D) Serum agar

131. Wood sorter's disease is also known as

- (A) Cutaneous anthrax
- (B) Pulmonary anthrax
- (C) Intestinal anthrax
- (D) Pulmonary tuberculosis

132. Liquid medium for tubercle bacilli is

- (A) Middlebrook 7H9
- (B) Middlebrook 7H8
- (C) Middlebrook 7H10
- (D) Löwenstein-Jensen medium

133. Verocytotoxin 1 of *E. Coli* is similar to

- (A) Shiga toxin
- (B) Cholera toxin
- (C) Enterotoxin of *S. aureus*
- (D) Toxin of *B. Cereus*

134. Which of the following salmonella ferments glucose with acid but no gas

- (A) *S. Paratyphi A*
- (B) *S. Paratyphi B*
- (C) *S. Choleraesuis*
- (D) *S. Typhi*

135. Clinical manifestations of enterococci are all except
- (A) Urinary tract infections
 - (B) Neonatal sepsis
 - (C) Neonatal meningitis
 - (D) Neonatal conjunctivitis
136. Which is not a risk factor for meningococcus infection
- (A) Travellers
 - (B) Smoking
 - (C) Over crowding
 - (D) Deficiency of Early complement components
137. Water house – Friderichsen syndrome, All are true EXCEPT
- (A) Caused by meningococcus
 - (B) Bilateral adrenal haemorrhage seen
 - (C) Purpura fulminans is a feature
 - (D) Pathogenesis is due to capsule
138. *Corynebacterium parvum* can be used as
- (A) Vaccine
 - (B) Immunomodulator
 - (C) Toxin production
 - (D) Adjuvant
139. Wool sorter's disease is a
- (A) Cutaneous anthrax
 - (B) Intestinal anthrax
 - (C) Anthrax meningitis
 - (D) Pulmonary anthrax

140. Brazilian purpuric fever caused by
(A) Haemophilus aphrophilus
(C) Coxiella burnetii
(B) Haemophilus aegyptius
(D) Rickettsia prowazekii
141. Transport media used for isolation of vibrio cholerae from stool specimen are all EXCEPT
(A) Alkaline salt medium
(C) Cary Blair medium
(B) Autoclaved sea water
(D) Stuarts medium
142. Oxidase Negative Pseudomonas species is
(A) Pseudomonas oxydihabitans
(C) Pseudomonas aeruginosa
(B) Pseudomonas paucimobilis
(D) Pseudomonas luteola
143. Most common mode of transmission of Legionella Pneumophila is
(A) Inhalation
(C) Blood
(B) Ingestion
(D) Insect bite
144. Q fever caused by
(A) Rickettsia conori
(C) Rickettsia prowazeki
(B) Coxiella burnetii
(D) Borbonella
145. Miyagawa granulocarpusles are seen in
(A) Trachoma
(B) Lymphogranuloma venereum
(C) Syphilis
(D) Psittacosis
146. Which is not a property of Mycoplasma?
(A) Susceptibility to Beta lactams
(B) Have both DNA and RNA
(C) Can grow in cell free media
(D) Extracellular survival

147. Vector for African Trypanosomiasis

- (A) Sand fly
(B) Tsetse fly
(C) Mosquito
(D) Tick

148. Chronic amoebic keratitis (CAK) is a complication of

- (A) N.Fowleri
(B) A.Castellani
(C) B.Mandrillaris
(D) E.Histolytica

149. Extra intestinal phase of taxoplasma gondii is seen in all, except

- (A) Man
(B) Cat
(C) Mouse
(D) Cow

150. Pernicious malaria is caused by,

- (A) P. Vivax
(B) P. Ovale
(C) P. Falliparum
(D) P. Malariae

151. Maurer's dots are present in the infected RBC of,

- (A) P.Vivax
(B) P. Falciparum
(C) P. Malariae
(D) P. Ovale

152. Floatation of eggs is characteristics of the following organisms EXCEPT

- (A) A. lumbricoides
(B) Trichuris trichiura
(C) T. Saginata
(D) A. duodenale

153. The Distome of China is refers to

- (A) Clonorchis Sinensis (B) F. hepatica
(C) F. buski (D) S. japonicum

154. Causative agent of Bilharziasis

- (A) S. haematobium (B) S. mansoni
(C) S. japonicum (D) S. intercalatum

155. Dipylidium Caninum is known as

- (A) Rat tape worm
 (B) Double – pored dog tape worm
(C) Gid worm
(D) Beef tapeworm

156. All of the following are Liver Flukes, except

- (A) C. Sinensis (B) O. Felineus
(C) F. Hepatica (D) G. Hominis

157. The phrase 'Serpent worm' is associated with

- (A) Loa loa
(B) Onchocerca Volvulus
 (C) Dracunculus Medineus
(D) Dirofilaria immitis

158. Which of the following is the smallest virus?

- (A) Papo virus
(B) Parvo virus
(C) Pallimoa virus
(D) Rubella virus

159. Viro pexis is the

- (A) Receptor mediated endocytosis
(B) Synthesis of Nucleic Acids
(C) Exocytosis
(D) Uncoating of virus

160. In egg inoculation, yolk sac route is used to

- (A) Cultivate arbo viruses
(B) Cultivate Hepatitis A virus
(C) Cultivate salmonella bacteria
(D) Cultivate Mycobacterium tuberculosis

161. In egg inoculation, Amniotic sac route is used to cultivate

- (A) Influenza virus
(B) Herpes simplex Virus – 1
(C) Epstein Barr Virus
(D) Herpes simplex Virus – 2

162. In molecular methods real time RT – PCR is used for

- (A) Quantification of DNA
(B) Quantification of RNA
(C) Identification of prions
(D) Detection of Proteins

163. Which of the following viruses are called orphan viruses?

- (A) Polio virus
(B) Echo virus
(C) Coxsackie virus
(D) Entero virus

164. Which of the following vaccine is killed vaccine?

- (A) Sabin polio vaccine
- (B) BCG vaccine
- (C) Salk polio vaccine
- (D) Sabin and salk polio vaccine

165. Type I interferons are

- (A) Alpha and gamma interferon
- (B) Beta interferon
- (C) Alpha and beta interferons
- (D) Gamma interferon

166. Virusoids are

- (A) Animal pathogen
- (B) Plant pathogen
- (C) Aquatic virus
- (D) Human pathogen

167. Name the filamentous shaped virus

- (A) Herpes virus
- (B) Ebola virus
- (C) Parvo virus
- (D) Rabies virus

168. Small pox was eradicated in the year

- (A) 1977
- (B) 1978
- (C) 1967
- (D) 1957

169. Which year did WHO announced global eradication of small pox?

- (A) May 8th 1980
- (B) May 18th 1980
- (C) March 18th 1980
- (D) May 8th 1981

170. The following are the strains of Poliovirus Except?
- (A) Lansing and MEF1 strain
 - (B) Leon and Saukett strain
 - (C) Dahar strain
 - (D) Mahoney strain
171. When passaged serially in eggs the progeny influenza virus show high haemagglutinin titres but low infectivity which is called as?
- (A) Von Magnus Phenomenon
 - (B) Pfeiffer's phenomenon
 - (C) Koeber's phenomenon
 - (D) Kauffman's phenomenon
172. What is the natural host for Nipah Viruses?
- (A) Pigs
 - (B) Herons
 - (C) Fruit bats
 - (D) Horses
173. The following mumps vaccine are available except
- (A) Monovalent mumps vaccine
 - (B) Divalent measles mumps vaccine
 - (C) Trivalent MMR vaccine
 - (D) Quadrivalent MMR-V vaccine
174. Rabies is not seen in
- (A) India
 - (B) Brazil
 - (C) Australia
 - (D) China

175. All are structural genes in the genome of HIV Except?

- (A) nef
- (B) gag
- (C) env
- (D) pol

176. Which one of the following statements about prions is false?

- (A) Prions are non-infectious proteins
- (B) Prions are infectious proteins
- (C) Prions have not caused disease in Americans
- (D) Prusiner proposed protein-only hypothesis

177. Which of the following viruses is a DNA oncogenic virus?

- (A) Murine lentrosis viruses
- (B) Avian lentrosis viruses
- (C) Murine mammary tumour virus
- (D) Yaba virus

178. Which of the following virus is a long thread like RNA?

- (A) Zika virus
- (B) Ebola virus
- (C) Nipah virus
- (D) Hendra virus

179. Which of the following is not a modes transmission of zika virus?

- (A) Breastfeeding
- (B) Blood transfusion
- (C) Perinatal transmission
- (D) Sexual transmission

180. Black piedra is caused by one of the following fungi

- (A) Trichosporon species
- (B) Piedraia hortae
- (C) Hortaea werneckii
- (D) Malassezia furfur

181. Which of the following fungi is geophilic dermatophyte?

- (A) Microsporum gypseum
- (B) Microsporum equinum
- (C) Microsporum persicolor
- (D) Microsporum canis

182. White piedra is caused by one of the following fungi?

- (A) Malassezia furfur
- (B) Hortaea werneckii
- (C) Piedraia hortae
- (D) Trichosporon species

183. Phialophora verrucosa is a tropical / subtropical fungus that causes

- (A) Maduro mycosis
- (B) Chromoblastomycosis
- (C) Sporotrichosis
- (D) Candidiasis

184. Desert rheumatism is seen in

- (A) Coccidioidomycosis
- (B) Paracoccidioidomycosis
- (C) Histoplasmosis
- (D) Blastomycosis

185. According to Durack and street classification, classic Fever of unknown origin (Classic FUO) is defined as the following except
- (A) Temperatures of $> 38.3^{\circ}\text{C}$ ✓ (B) Duration of > 1 wks
(C) Duration of > 3 wks (D) Three outpatient visits
186. Post operative endocarditis is due to
- ✓ (A) Staphylococcal epidermidis
(B) Staphylococcus aureus
(C) Streptococcus pyogenes
(D) Streptococcus viridans
187. A patient in an ICU is on a CVP line. His blood culture shows growth of gram positive Cocci which is catalase positive and coagulase negative. The most likely etiological agent.
- (A) Staphylococcus aureus ✓ (B) Staphylococcus epidermidis
(C) Streptococcus Pyogenes (D) Enterococcus faecalis
188. Hand rub should not be used in which condition.
- (A) Before touching patient
(B) After touching patient
✓ (C) Hands are visibly soiled
(D) After touching patient's surrounding
189. Pseudobubo is present in
- (A) LGV (B) Syphilis
✓ (C) Chancroid ✓ (D) Donovanosis
190. TORCH infection include all except
- (A) Toxoplasmosis ✓ (B) Orthomyxoviruses
(C) Rubella (D) Herpes

191. Chemoprophylaxis for high chloroquine resistance is
- (A) Mefloquine 250 mg 1 tablet weekly
 - (B) Proguanil 100 mg
 - (C) Primaquine
 - (D) Piperaquine
192. Both live attenuated and killed vaccine is NOT available for which of the following?
- (A) Polio virus
 - (B) Yellow fever
 - (C) Chicken pox
 - (D) Japanese B encephalitis
193. Newer Hendra and Nipah virus-vaccine is
- (A) Live vaccine
 - (B) Killed vaccine
 - (C) Subunit vaccine
 - (D) Toxoid
194. Live attenuated vaccine using ~~oka strain~~ is available for
- (A) Rabies virus
 - (B) Varicella zoster virus
 - (C) Polio V
 - (D) Yellow fever V
195. Which one of the following is a whole-cell recombinant B subunit cholera vaccine?
- (A) Dukoral
 - (B) WC V. cholerae E1Tor
 - (C) WC V. cholerae classical
 - (D) WC V. cholerae inaba

196. In which method, an absorbent strip with a known gradient of antibiotic concentration along its length is used for antibiotic sensitivity testing?
- (A) Kirby Baner disc diffusion method
 (B) Epsilometer test
(C) Primary disc diffusion test
(D) Agar dilution method
197. The percentage of removal of the Biochemical oxygen demand (BOD) of sewage in primary treatment
- (A) 5 – 10% (B) 10 – 15%
 (C) 25 – 35% (D) 20 – 25%
198. All of the following diseases are transmitted by mosquito except :
- (A) Japanese encephalitis
(B) Yellow fever
(C) West Nile fever
 (D) Oroya fever
199. How many pairs of amplification primers are used in nested PCR
- (A) One (B) Two
(C) Three (D) Five
200. What should be the minimum distance (center to center) between two adjacent antimicrobial disks on the Mueller – Hinton agar plate?
- (A) 5 mm (B) 10 mm
 (C) 20 mm (D) 30 mm