

पुस्तिका में पृष्ठों की संख्या : 32
Number of Pages in Booklet : 32
पुस्तिका में प्रश्नों की संख्या : 180
No. of Questions in Booklet : 180

प्रश्न-पत्र पुस्तिका संख्या /
Question Paper Booklet No.

5202201

BSAPMb-02

Paper Code : 13

SUBJECT : Microbiology

समय : 3.00 घण्टे
Time : 3.00 Hours

परीक्षा दिनांक : 11/08/2020

परीक्षा समय : 2:00 To 5:00

अधिकतम अंक : 180
Maximum Marks : 180

प्रश्न-पत्र पुस्तिका एवं उत्तर पत्रक के पेपर सील/पॉलिथीन बैग को खोलने के बाद परीक्षार्थी प्रश्न-पत्र पुस्तिका संख्या को उत्तर पत्रक पर सावधानीपूर्वक अंकित करें। इसमें किसी भी प्रकार की त्रुटि होने पर जिम्मेदारी अभ्यर्थी की होगी।

The candidate fill the Question Paper Booklet No. on Answer Sheet carefully after opening the Paper Seal / Polythene bag. Candidate himself shall be responsible for any error.

परीक्षार्थियों के लिए निर्देश

- सभी प्रश्नों के उत्तर दीजिए।
- सभी प्रश्नों के अंक समान हैं।
- प्रत्येक प्रश्न का केवल एक ही उत्तर दीजिए।
- एक से अधिक उत्तर देने की दशा में प्रश्न के उत्तर को गलत माना जाएगा।
- प्रत्येक प्रश्न के चार वैकल्पिक उत्तर दिये गये हैं, जिन्हें क्रमशः 1, 2, 3, 4 अंकित किया गया है। अभ्यर्थी को सही उत्तर निर्दिष्ट करते हुए उनमें से केवल एक गोले अथवा बबल को उत्तर पत्रक पर नीले बॉल प्वाइंट पेन से गहरा करना है।
- OMR उत्तर पत्रक इस परीक्षा पुस्तिका के अन्दर रखा है। जब आपको परीक्षा पुस्तिका खोलने को कहा जाए, तो उत्तर-पत्र निकाल कर ध्यान से केवल नीले बॉल प्वाइंट पेन से विवरण भरें।
- प्रत्येक गलत उत्तर के लिए प्रश्न अंक का 1/3 भाग काटा जायेगा। गलत उत्तर से तात्पर्य अशुद्ध उत्तर अथवा किसी भी प्रश्न के एक से अधिक उत्तर से है। किसी भी प्रश्न से संबंधित गोले या बबल को खाली छोड़ना गलत उत्तर नहीं माना जायेगा।
- मोबाइल फोन अथवा इलेक्ट्रॉनिक यंत्र का परीक्षा हॉल में प्रयोग पूर्णतया वर्जित है। यदि किसी अभ्यर्थी के पास ऐसी कोई वर्जित सामग्री मिलती है तो उसके विरुद्ध आयोग द्वारा नियमानुसार कार्यवाही की जायेगी।
- कृपया अपना रोल नम्बर ओ.एम.आर. पत्रक पर सावधानीपूर्वक सही भरें। गलत अथवा अपूर्ण रोल नम्बर भरने पर 5 अंक कुल प्राप्तांकों में से काटे जा सकते हैं।

चेतावनी: अगर कोई अभ्यर्थी नकल करते पकड़ा जाता है या उसके पास से कोई अनधिकृत सामग्री पाई जाती है, तो उस अभ्यर्थी के विरुद्ध पुलिस में प्राथमिकी दर्ज कराते हुए विविध नियमों-प्रावधानों के तहत कार्यवाही की जाएगी। साथ ही विभाग ऐसे अभ्यर्थी को भविष्य में होने वाली विभाग की समस्त परीक्षाओं से विवर्जित कर सकता है।

INSTRUCTIONS FOR CANDIDATES

- Answer all questions.
- All questions carry equal marks.
- Only one answer is to be given for each question.
- If more than one answers are marked, it would be treated as wrong answer.
- Each question has four alternative responses marked serially as 1, 2, 3, 4. You have to darken only one circle or bubble indicating the correct answer on the Answer Sheet using BLUE BALL POINT PEN.
- The OMR Answer Sheet is inside this Test Booklet. When you are directed to open the Test Booklet, take out the Answer Sheet and fill in the particulars carefully with blue ball point pen only.
- 1/3 part of the mark(s) of each question will be deducted for each wrong answer. A wrong answer means an incorrect answer or more than one answers for any question. Leaving all the relevant circles or bubbles of any question blank will not be considered as wrong answer.
- Mobile Phone or any other electronic gadget in the examination hall is strictly prohibited. A candidate found with any of such objectionable material with him/her will be strictly dealt as per rules.
- Please correctly fill your Roll Number in O.M.R. Sheet. 5 Marks can be deducted for filling wrong or incomplete Roll Number.

Warning : If a candidate is found copying or if any unauthorized material is found in his/her possession, F.I.R. would be lodged against him/her in the Police Station and he/she would liable to be prosecuted. Department may also debar him/her permanently from all future examinations.

इस परीक्षा पुस्तिका को तब तक न खोलें जब तक कहा न जाए।
Do not open this Test Booklet until you are asked to do so.



1. *Staphylococcus aureus* enterotoxin, all are true, except :
 - (1) Preformed toxin
 - (2) Incubation period is short (1-6 hours)
 - (3) The toxin stimulates the vagus nerve and the vomiting centre of the brain.
 - (4) Treatment is mainly by early institution of antibiotics.
2. Positive tube coagulase test is a property of all the following species of *staphylococcus*, except :
 - (1) *S. aureus*
 - (2) *S. hyicus*
 - (3) *S. Intermedius*
 - (4) *S. Lugdunensis*
3. *Staphylococcus epidermidis*, all are true, except :
 - (1) Accounts for 75% of CONS
 - (2) Phosphatase negative
 - (3) Produces biofilm
 - (4) causes stitch abscesses
4. *S. pyogenes* is differentiated from *S. agalactiae* by all, except :
 - (1) C. carbohydrate antigen
 - (2) M. protein
 - (3) Bactracin susceptibility
 - (4) CAMP test
5. All are true about streptolysin O, except :
 - (1) Causes hemolysis on the surface of blood agar plate.
 - (2) Strongly antigenic
 - (3) Useful for retrospective diagnosis of streptococcal infection
 - (4) Not useful for diagnosis of post streptococcal glomerulonephritis.
6. In revised Jones criteria for acute rheumatic fever, the major manifestations include all, except :
 - (1) Subcutaneous nodules
 - (2) Pancarditis
 - (3) Arthritis (migrating polyarthritis)
 - (4) Increased ASO antibodies

7. Which is not a property of *S. pneumoniae* ?

- (1) Bile solubility
- (2) Animal pathogenicity in mice
- (3) Growth in presence of 40% bile
- (4) Optochin sensitivity

8. All the following are causative agent of NGU, except :

- (1) *Chlamydia trachomatis*
- (2) *Mycoplasma hominis*
- (3) *Candida albicans*
- (4) Meningococci

9. Serogrouping of meningococcus is based on

- (1) Outer membrane protein
- (2) Endotoxin
- (3) Capsular polysaccharide
- (4) Transferrin binding protein

10. Waterhouse-Friderichsen syndrome, all are true, except :

- (1) Caused by meningococcus
- (2) Bilateral adrenal haemorrhage is seen
- (3) Purpura fulminans is a feature
- (4) Pathogenesis is due to capsule

11. Transport media used for gonococci is :

- (1) Stuart's medium
- (2) Pike's medium
- (3) VR medium
- (4) Cary Blair medium

12. Metachromatic granules of *Corynebacterium diphtheriae* can be stained by all of the following special stains, except :

- (1) Neisser's stain
- (2) Ziehl-Neelsen stain
- (3) Albert's stain
- (4) Ponder's stain

13. Gram-stain morphology of bacillus anthracis is :
- (1) Jennis racket appearance
 - (2) Drum stick appearance
 - (3) Bamboo stick appearance
 - (4) Spectacle glass appearance
14. Emetic toxin of *B.cereus* - all are true, except :
- (1) Produces food poisoning similar to *S.aureus*.
 - (2) Chinese fried rice is a common source.
 - (3) Serotype associated 2, 6, 8.
 - (4) Incubation period 1-5 hours.
15. Site of action of tetanus toxin
- (1) Presynaptic terminal of spinal cord
 - (2) Postsynaptic terminal of spinal cord
 - (3) Neuromuscular junction
 - (4) Muscle fibre
16. Pseudomembranous colitis is caused by
- (1) *Clostridium perfringens*
 - (2) *Clostridium difficile*
 - (3) *Clostridium tetani*
 - (4) *Clostridium botulinum*
17. Fatty acid composition of anaerobic bacteria can be determined by which of following tests ?
- (1) Phage typing
 - (2) Biotyping
 - (3) Gas-liquid chromatography
 - (4) Immunoassay
18. MPT 64 antigen is used to detect :
- (1) *M. tuberculosis* from *M. bovis*
 - (2) *M. tuberculosis* complex from NTM
 - (3) Acid-fast bacilli from non acid-fast bacilli
 - (4) *M. tuberculosis* from *M. leprae*
19. Line probe assay for *M. tuberculosis* - all are true, except :
- (1) Used for identification of MTB complex
 - (2) Detects rifampicin resistance
 - (3) Detects isoniazid resistance
 - (4) Useful for paucibacillary smear-negative specimens

20. Interferon Gamma Release Assay (IGRA) has the advantage over tuberculin test :

- (1) Positive indicates active infection
- (2) Has less false negative result
- (3) Has no false positive result
- (4) Can be used as marker of prevalence

21. Which of the following types of leprosy is the most infectious ?

- (1) Lepromatous leprosy
- (2) Tuberculoid leprosy
- (3) Borderline tuberculoid leprosy
- (4) Mid-borderline leprosy

22. Which of the following can be used for cultivation of *Mycobacterium leprae* ?

- (1) Brain heart infusion agar
- (2) Chorioallantoic membrane of chick embryo
- (3) Foodpad of mouse
- (4) All of the above

23. Which of the following serotypes of chlamydia trachomatis cause lymphogranuloma venereum ?

- (1) A, B, Ba, C
- (2) D-K
- (3) L₁-L₃
- (4) Only A

24. Which of the following is the causative agent of donovanosis ?

- (1) *Klebsiella pneumoniae*
- (2) *Leishmania donovani*
- (3) *Calymmatobacterium granulomatis*
- (4) *Streptococcus mutans*

25. Which of the following tests is performed to demonstrate congenital syphilis ?

- (1) FTA-ABS test
- (2) IgM FTA-ABS test
- (3) TPI test
- (4) TPHA test

26. Which of the following is the causative agent of Rickettsial pox ?
- (1) Rickettsia prowazekii
 - (2) R.typhi
 - (3) R.akali
 - (4) R.conori
27. Vibrio parahaemolyticus strains isolated from environmental sources can be differentiated from those isolated from humans cases by :
- (1) Kanagawa phenomenon
 - (2) modified CAMP test
 - (3) Reverse CAMP test
 - (4) All of the above
28. Which statement best describes toll like receptors ?
- (1) Cell-associated receptors that enhances phagocytosis of pathogens
 - (2) Acute phase proteins which activate complement system
 - (3) Receptors which activate large number of T helper cells
 - (4) Receptors for polyclonal activation
29. Exotoxins do not have which of the following characteristics ?
- (1) They are produced extracellularly
 - (2) They are produced by both gram-positive and gram-negative bacteria
 - (3) Cannot be converted into toxoids
 - (4) They are heat-labile
30. Super antigen causes :
- (1) Enhancement of phagocytosis
 - (2) Polyclonal activation of B-cells
 - (3) Antigen presentation by macrophage
 - (4) Activation of complement
31. Which antibody mediates ADCC (Antibody Dependent Cell Mediated Cytotoxicity) ?
- (1) IgA
 - (2) IgG
 - (3) IgE
 - (4) IgM

32. The technique used for monoclonal antibodies production is called :

- (1) Hybridoma
- (2) Rosette formation
- (3) Opsonisation
- (4) Immunofluorescence

33. Elek's test is an example of :

- (1) Agglutination
- (2) Neutralisation test
- (3) Precipitation test
- (4) Complement fixation test

34. Indirect immunofluorescence test may be used for detection of :

- (1) Rabies virus antigen
- (2) Antibodies in syphilis
- (3) Both of the above
- (4) None of the above

35. Monoclonal antibodies recognize a single :

- (1) Antigen
- (2) Epitope
- (3) Paratope
- (4) None of these

36. The chromogen most commonly used to label antibodies in ELISA is :

- (1) Malachite green
- (2) Alkaline phosphatase
- (3) Congo red
- (4) Superoxidase

37. High titres of antinuclear antibodies are indicative of :

- (1) Parasitic infections
- (2) Fungal infections
- (3) Autoimmune diseases
- (4) Bacterial diseases

38. All the following statements about hybridoma technology are true except :

- (1) Specific antibody producing cells are integrated with myeloma cells.
- (2) Myeloma cells in salvage pathway grows well in HAT medium.
- (3) Aminopterin, a folate antagonist, inhibits de novo pathway.
- (4) HGPRT and thymidylate synthetase are required for salvage pathway.

39. An agglutination reaction which makes use of staphylococcus aureus bound IgG as a reagent is known as :

- (1) Passive agglutination
- (2) Reverse passive agglutination
- (3) Coagglutination
- (4) Flocculation

40. Regarding the blotting techniques, which of the following is false ?

- (1) Southern blot is used to detect DNA.
- (2) Northern blot is used to detect RNA.
- (3) Western blot is used to detect antigens.
- (4) Eastern blot is used to analyse proteins for post-translational modifications.

41. Which of the following disease is NOT vaccine preventable ?

- (1) Mumps
- (2) Hepatitis B
- (3) Hepatitis C
- (4) Hepatitis A

42. CD8 cells can recognise :

- (1) MHC class I antigens
- (2) MHC class II antigens
- (3) MHC class III antigens
- (4) All of the above

43. Which of the following HLA types is associated with ankylosing spondylitis ?

- (1) HLA-BZ7
- (2) HLA-DR4
- (3) HLA-DP
- (4) None of the above

44. The animal used for monoclonal antibodies production is :

- (1) Mouse
- (2) Guinea pig
- (3) Rabbit
- (4) None of the above

45. The widely accepted theory of antibody formation is :

- (1) Direct template theory
- (2) Indirect template theory
- (3) Natural selection theory
- (4) Clonal selection theory

46. Grafts between two genetically non-identical members of the same species are known as :

- (1) Autografts
- (2) Isografts
- (3) Allografts
- (4) Xenografts

47. Which of the following is NOT known to be transmitted by blood ?

- (1) Human immunodeficiency virus
- (2) Hepatitis B virus
- (3) Hepatitis C virus
- (4) Treponema pallidum

48. All fungi have ergosterol in their cell membrane except one of the followings :

- (1) Histoplasma capsulatum
- (2) Cryptococcus neoformans
- (3) Pneumocystis jirovecii
- (4) Aspergillus niger

49. Emmons' modified sabourand dextrose agar medium has one of the followings pH.

- (1) 5.6
- (2) 6.8
- (3) 7.4
- (4) 8.2

50. The 'mitosporic fungi' are placed in one of the phyla as their sexual state is not yet known :

- (1) Zygomycota
- (2) Ascomycota
- (3) Basidiomycota
- (4) Deuteromycetes

51. In KOH wet mount, acute-angle septate branching hyphae are seen in one of diseases :
- (1) Candidiasis
 - (2) Aspergiliosis
 - (3) Zygomycosis
 - (4) Histoplasmosis
52. Which of the following groups of antifungal agent acts through cytochrome P-450 ?
- (1) Polyenes
 - (2) Griseofulvin
 - (3) Azoles
 - (4) Allylamines and benzylamines
53. White piedra is caused by one of following fungi :
- (1) *Malassezia furfur*
 - (2) *Hortaea werneckii*
 - (3) *Piedraia hortae*
 - (4) *Trachosporon* species
54. Which of the following fungi is geophilic dermatophyte ?
- (1) *Microsporum gypseum*
 - (2) *Microsporum equinum*
 - (3) *Microsporum persicolor*
 - (4) *Microsporum canis*
55. Id reaction is seen in patients suffering from :
- (1) Dermatophytosis
 - (2) Histoplasmosis
 - (3) Blastomycosis
 - (4) Coccidioidomycosis
56. Which of the following fungal or bacterial species gives golden-yellow colored fluorescence under Wood's lamp examination ?
- (1) *Microsporum audouinii*
 - (2) *Trichophyton schoenleinii*
 - (3) *Malassezia furfur*
 - (4) *Corynebacterium minutissimum*
57. Keloid mycosis is name given to one of the following fungal infections :
- (1) Paracoccidioidomycosis
 - (2) Coccidioidomycosis
 - (3) Lobomycosis
 - (4) Histoplasmosis

58. Which of the following fungi is a 'Select agent' of bioterrorism ?

- (1) *Histoplasma capsulatum*
- (2) *Coccidioides immitis*
- (3) *Paracoccidioides brasiliensis*
- (4) *Blastomyces dermatitidis*

59. Hair-Bait technique depends on the fact that all dermatophytes :

- (1) Grow on hair
- (2) Grow at 25 °C
- (3) Are Keratinophilic
- (4) Reside in soil

60. 'Cigar shaped bodies' refers to one of the following :

- (1) Granules seen in mycetoma
- (2) Any yeast cell
- (3) Yeast phase of *Sporothrix schenckii*
- (4) Hyphal form of *Sporothrix schenckii*

61. Asteroid body is usually seen in one of the following infections :

- (1) Chromoblastomycosis
- (2) Sporotrichosis
- (3) Phaeohyphomycosis
- (4) Eumycetoma

62. Reynolds-Braude phenomenon is seen in one of the following yeast-like fungus :

- (1) *Cryptococcus neoformans*
- (2) *Candida albicans*
- (3) *Geotrichum candidum*
- (4) *Trichosporon Cutaneum*

63. Taxonomically, *Pneumocystis Jirovecii* is classified into one of the following fungal phyla :

- (1) Zygomycota
- (2) Ascomycota
- (3) Basidiomycota
- (4) Deuteromycetes



64. An agglutination test for detection of antigen in serum or cerebrospinal fluid is frequently used in one of the following diseases :
- (1) Candidiasis
 - (2) Cryptococcosis
 - (3) Histoplasmosis
 - (4) Toxoplasmosis
65. Which of azoles is effective in treatment of Zygomycetes infection ?
- (1) Fluconazole
 - (2) Intraconazole
 - (3) Voriconazole
 - (4) Posaconazole
66. Which is the commonest fungal agent involved in Otomycosis cases ?
- (1) *Pseudallescheria boydii*
 - (2) *Aspergillus niger*
 - (3) *Penicillium species*
 - (4) *Candida albicans*
67. Which fungal species is involved in aflatoxin production ?
- (1) *Aspergillus flavus*
 - (2) *Aspergillus ochraceus*
 - (3) *Claviceps purpurea*
 - (4) *Fusarium graminearum*
68. Which of the following fungi produces large, smooth sickle shaped macroconidia ?
- (1) *Fusarium spp.*
 - (2) *Acremonium spp.*
 - (3) *Paecilomyces spp.*
 - (4) *Scopulariopsis spp.*
69. The yeast cells in one of the following dimorphic fungi divide by fission and not by budding :
- (1) *Histoplasma capsulatum*
 - (2) *Blastomyces dermatitidis*
 - (3) *Paracoccidioides brasiliensis*
 - (4) *Penicillium marneffeii*
70. One of the followings is unique feature of classical histoplasmosis :
- (1) Encapsulated yeast cells
 - (2) Granules containing yeast cells
 - (3) Intracellular yeast cells
 - (4) Coenocytic hyphae
71. The phaeoid fungi are demonstrated with one of the following special stains :
- (1) Gomori's methenamine silver stain
 - (2) Masson-fontana stain
 - (3) Haematoxylin and eosin stain
 - (4) Periodic-acid Schiff stain

72. All are true about blastomyces dermatitidis except one of the following :

- (1) Broad-based yeast cells
- (2) Dimorphic nature
- (3) Involves lungs and skin
- (4) Prevalent in South America

73. Which of the following is NOT TRUE about the rhinosporidiosis ?

- (1) It is caused by Rhinosporidium secheri.
- (2) Stagnant water is the reservoir of the pathogen.
- (3) Mucous membranes of nose and mouth are the mostly infected sites.
- (4) It leads to rhinoscleroma

74. Intrinsic resistance to Amphotericin B is seen with which of the following fungi ?

- (1) Aspergillus terreus
- (2) A. fumigatus
- (3) A. nidulans
- (4) A. casaliflavus

75. Which one of the following pathogenic fungi multiples intracellularly in reticuloendothelial system ?

- (1) Paracoccidioides brasiliensis
- (2) Cryptococcus gatti
- (3) Histoplasma capsulatum
- (4) Monosporium apiospermum

76. Grape like clusters of subspherical microconidia on the terminal branches are the distinguishing feature of :

- (1) Trichophyton mentagrophytes
- (2) T. tonsurans
- (3) T. rubrum
- (4) Microsporum nodosum

77. The infection of the skin caused by non-dermatophytic fungi and the cutaneous manifestations of systemic mycoses are known as :

- (1) Dermatophytosis
- (2) Dermatophytid
- (3) Dermatomycosis
- (4) Ectothrix



78. Cowdry type A inclusion bodies are seen in :
- (1) HBV
 - (2) Herpes Virus
 - (3) Adenovirus
 - (4) Pox Virus
79. Both intranuclear and intracytoplasmic inclusion is seen in :
- (1) Pox Virus
 - (2) Herpes Virus
 - (3) Measles Virus
 - (4) Mumps Virus
80. New castle virus belong to family :
- (1) Paramyxo Virus
 - (2) Calci Virus
 - (3) Flavi Virus
 - (4) Filo Virus
81. Ebola virus belongs to :
- (1) Picorna viridae
 - (2) Toga viridae
 - (3) Flavi viridae
 - (4) Filo viridae
82. Pocks producing virus can be grown in :
- (1) Organ Culture
 - (2) Choro allantoie membrane
 - (3) Cell culture
 - (4) continuous cell line
83. Suck line mice is used for Isolation of
- (1) Cocksackie virus
 - (2) Pox
 - (3) Herpes
 - (4) Adenovirus
84. Property of elution is found in
- (1) Myxo virus
 - (2) Toga virus
 - (3) Parvo virus
 - (4) Adeno virus
85. Hep-2 cells a type of
- (1) Primary cell line
 - (2) Continuous cell line
 - (3) Diploid cell strain
 - (4) Explant culture

86. Haemagglutination done by all virus, except :

- (1) Influenza
- (2) Rubella
- (3) Measles
- (4) HPV

87. Bacteriophages are readily counted by

- (1) Plaque assay
- (2) ELISA
- (3) Cell culture
- (4) radio immunoassay

88. Which of the following viruses was used for vaccination against small pox ?

- (1) Vaccinia
- (2) Small pox
- (3) Cow-pox
- (4) Buffalo pox

89. Shingles is caused by

- (1) Varicella-Zoster virus
- (2) Cytomegalo virus
- (3) Epstein – Barr Virus
- (4) Herpes simplex virus type-1

90. Paul-Bunnell heterophile antibody test aids in the diagnosis of :

- (1) Infectious mononucleosis
- (2) Chickenpox
- (3) Genital heepes
- (4) Acute gingivostomatitis

91. Which of the following viruses is associated with erythematous eruption of the cheeks (Slapped cheek) ?

- (1) Parvo virus
- (2) Erythro virus
- (3) Dependo virus
- (4) TC polyoma virus

92. What is the preferred clinical specimen for detection of BK polyoma virus by electron microscopy ?

- (1) Brain tissue
- (2) Urine
- (3) Blood
- (4) None of the above

93. Most common infection in transplant recipients :

- (1) Cytomegalo virus
- (2) Epstein Barr virus
- (3) Hepatitis virus
- (4) Polyoma virus

94. HHV-8 is associated with all, except :

- (1) Kaposi Sarcoma
- (2) Adult T Cell leukemia
- (3) Castleman's disease
- (4) Primary effusion lymphoma

95. Enterovirus species that is causing conjunctivitis :

- (1) Enterovirus 68
- (2) Enterovirus 69
- (3) Enterovirus 70
- (4) Enterovirus 71

96. Elution is mediated by :

- (1) Haemagglutination
- (2) Neuraminidase
- (3) Matrix protein
- (4) Ribonucleoprotein

97. Warthin-Finkeldy cells are seen in :

- (1) Mumps
- (2) Measles
- (3) Rubella
- (4) Adenovirus

98. Viral hemorrhagic fever which have occurred in India :

- (1) Ebola
- (2) Crimean congo hemorrhage fever
- (3) Yellow fever
- (4) Marburg

99. Which anti-rabies vaccine is given in India ?

- (1) Duck cell vaccine
- (2) Chick fibroblast vaccine
- (3) HDCV
- (4) Sheep brain vaccine

100. Which is the dangerous hepatitis virus during pregnancy ?

- (1) Hepatitis A
- (2) Hepatitis B
- (3) Hepatitis D
- (4) Hepatitis E

101. Cryoglobulinemia is associated with :

- (1) HAV
- (2) HBV
- (3) HCV
- (4) HDV

102. Most sensitive test for HIV infection

- (1) Western blot
- (2) ELISA
- (3) Agglutination
- (4) CFT

103. All are true about SARS except :

- (1) Not seen in India
- (2) Spread by droplet
- (3) Diagnosed by PCR
- (4) Caused by SARS Cov



104. True about Ebola virus :

- (1) Flavi virus
- (2) Icosahedral symmetry
- (3) Specific treatment is available
- (4) Spreads by direct contact with blood or body fluids

105. Prions are :

- (1) Infectious proteins
- (2) Made up to virus particles
- (3) It is a nuclear material
- (4) can be cultured

106. Rota virus is detected by :

- (1) Antigen in stool
- (2) Antibody in serum
- (3) Demonstration of virus
- (4) Stool culture

107. Following are the types of corona virus EXCEPT :

- (1) MERS - CoV
- (2) SARS - CoV
- (3) BK and JC Virus
- (4) NL63 - New Haven Corona Virus

108. Which of the following protozoa belongs to phylum Euglenozoa ?

- (1) Leishmania Species
- (2) Entamoeba Species
- (3) Cryptosporidium Species
- (4) Plasmodium Species

109. Which of the following protozoa belongs to phylum Apicomplexa ?

- (1) Giardia Species
- (2) Trichomonas Species
- (3) Plasmodium Species
- (4) Entamoeba Species

110. Parasite which may be transmitted by sexual contact is :

- (1) *Trypanosoma cruzi*
- (2) *Trichomonas vaginalis*
- (3) *Trypanosoma brucei*
- (4) *Ascaris*

111. Cholangiocarcinoma is associated with chronic infection of :

- (1) *Paragonius westermani*
- (2) *Fasciola hepatica*
- (3) *Clonorchis sinensis*
- (4) *Schistosoma haematobium*

112. Human being acts as intermediate host in the life cycles of following parasites except :

- (1) *Plasmodium falciparum*
- (2) *Toxoplasma gondii*
- (3) *Taenia solium*
- (4) *Echinococcus granulosus*

113. Presence of ingested erythrocytes is characteristic of :

- (1) *Entamoeba histolytica*
- (2) *Entamoeba coli*
- (3) *Endolimax nana*
- (4) *Iodamoeba buetschlii*

114. *Naegleria fowleri* causes :

- (1) Primary amoebic meningoencephalitis
- (2) Liver abscess
- (3) Amoebic dysentery
- (4) All of the above

115. The characteristic feature of pus of amoebic liver abscess is :

- (1) Anchovy sauce pus
- (2) Green coloured pus
- (3) Thin blue pus
- (4) None of the above

116. The causative agent of chaga's disease is :

- (1) *Trypanosoma brucei*
- (2) *Trypanosoma cruzi*
- (3) *Toxoplasma gondii*
- (4) *Leishmania tropica*

117. The causative agent of cutaneous leishmaniasis in India is :

- (1) *Leishmania tropica*
- (2) *L. donovani*
- (3) *Trypanosoma cruzi*
- (4) None of the above

118. Gametocytes of which plasmodium sp. are sickle shaped ?

- (1) *Plasmodium Vivax*
- (2) *Plasmodium falciparum*
- (3) *Plasmodium malariae*
- (4) *Plasmodium Ovale*

119. Sabin-Feldman dye test is used to diagnose :

- (1) Trichuriasis
- (2) Trypanosomiasis
- (3) Toxoplasmosis
- (4) None of the above

120. The most common method used to demonstrate the oocysts of *cryptosporidium parvum* in stool specimen is :

- (1) Modified Ziehl-Neelsen stain
- (2) Gram stain
- (3) Hematoxylin – eosin stain
- (4) None of the above

121. Which of the following parasites is the largest protozoa ?

- (1) *Entamoeba histolytica*
- (2) *Giardia lamblia*
- (3) *Balantidium coli*
- (4) None of the above

122. Which of the following parasite is/are associated with HIV disease ?

- (1) *Necator americanus*
- (2) *Microsporidia* sp.
- (3) *Wuchereria Bancrofti*
- (4) None of the above

123. The larval form of *Echinococcus* granulosus is named as :

- (1) *Cysticercus cellulose*
- (2) *Cysticercus bovis*
- (3) Hydatid cyst
- (4) None of the above

124. Which skin test is useful for diagnosis of hydatid disease ?

- (1) Casoni test
- (2) Dick test
- (3) Schick test
- (4) Tuberculin test

125. In which of the following trematodes, the mode of infection is penetration through skin ?

- (1) *Fasciola* Sp.
- (2) *Clonorchis* Sp.
- (3) *Heterophyes* Sp.
- (4) *Schistosoma* Sp.

126. Larva currens is caused by

- (1) Ascariasis
- (2) Cutaneous larva migrans
- (3) strongyloidiasis
- (4) *Toxocara canis*

127. Causative agent of calabar swelling is :

- (1) *Dracunculus medinensis*
- (2) *Wuchereria bancrofti*
- (3) *Brugia malayi*
- (4) *Loa loa*

128. Which of the following infection is eradicated from India ?

- (1) *Wuchereria bancrofti*
- (2) *Brugia malayi*
- (3) *Dracunculus medinensis*
- (4) *Ascaris lumbricoides*

129. Which of the following microfilariae is sheathed ?

- (1) *Mansonella persantans*
- (2) *Onchocerca Volvulus*
- (3) *Brugia malayi*
- (4) *Mansonella streptocerca*

130. Which of the following microfilaria comes to peripheral blood in the day time ?

- (1) *Wuchereria bancrofti*
- (2) *Brugia Malayi*
- (3) *Loa loa*
- (4) *Brugia timori*

131. True about anisakiasis is

- (1) Transmitted by ingestion of larvae found in salt water fish and squid
- (2) Transmitted by ingestion of adult worm
- (3) Marine mammals serve as intermediate host
- (4) Transmitted by ingestion of meat containing eggs

132. Cutaneous larva migrans is mainly caused by

- (1) *Ancylostoma brasiliensis*
- (2) *Necator americanus*
- (3) *Ancylostoma duodenale*
- (4) *Strongyloides stercoralis*

133. Visceral larva migrans is caused by

- (1) *Ancylostoma duodenale*
- (2) *Necator americanus*
- (3) *Ancylostoma caninum*
- (4) *Toxocara canis*

134. All of the following nematodes are Oviparous, except :

- (1) Round worm
- (2) Strongyloides
- (3) Hookworm
- (4) Enterobius

135. Advantages of saline mount are all, except :

- (1) Useful in the detection of trophozoites and cysts of protozoa and eggs and larvae of helminths.
- (2) Nuclear details of cysts and helminthic eggs and larvae are better visualized
- (3) Motility of trophozoites and larvae can be seen in acute infection.
- (4) Bile staining property can be appreciated

136. Boeck and DR Bohlav's medium is used for the cultivation of :

- (1) Entamoeba histolytica
- (2) Leishmania donovani
- (3) Malaria parasite
- (4) Hookworm

137. Which of the following medium is used for cultivation of malaria parasite ?

- (1) Diamond's (TYM) medium
- (2) NNN medium
- (3) Cysteine peptone liver maltose media
- (4) RPM₁ 1640 medium

138. Regarding Zika Virus, following are true, EXCEPT :

- (1) ZIKA virus disease is transmitted by bite of Aedes mosquito
- (2) ZIKA virus disease can be transmitted sexually
- (3) ZIKA virus can be transmitted from pregnant mother to foetus
- (4) Vaccine or drug is available



139. Following viral diseases are transmitted by the bite of Aedes mosquito mainly Aedes aegypti, EXCEPT :

- (1) Dengue
- (2) Chikungunya
- (3) Japanese B encephalitis
- (4) Yellow fever

140. Most common cause of community acquired UTI

- (1) E-coli
- (2) Proteus
- (3) Pseudomonas
- (4) Klebsiella

141. Carrion's disease is caused by :

- (1) Bartonella henselae
- (2) Bartonella quintana
- (3) Bartonella bacilliformis
- (4) Coxiella burnetii

142. Confirmation of Anthrax can be done during bioterrorism attack by following methods except (according to CDC, 2004)

- (1) Gelatin stab agar culture
- (2) Lysis by gamma phage
- (3) Direct immunofluorescence test
- (4) PCR

143. Xpert / MTB / RTF test is used for

- (1) for assessing resistance to isoniazid
- (2) for assessing multidrug resistant TB
- (3) for assessing rifampicin resistance
- (4) monitoring drug response in MDRTB

144. A 35-year old cook in a hotel suffered from enteric fever two year back. To diagnose the chronic carrier state in this patient, which of the following method is used ?

- (1) Vi agglutination test
- (2) Blood culture in BHI broth
- (3) Widal test
- (4) Bone marrow culture

145. Which is the commonest aetiological agent of endocarditis associated with intravenous drug abusers ?

- (1) *Staphylococcus aureus*
- (2) *Staphylococcus epidermidis*
- (3) *Aspergillus fumigatus*
- (4) *Streptococcus agalactiae*

146. Which of the following vaccine is/are live attenuated vaccine/s ?

- (1) BCG Vaccine
- (2) Measles Vaccine
- (3) MMR Vaccine
- (4) All of the above

147. In which method, an absorbent strip with a known gradient of antibiotic concentration along its length is used for antibiotic sensitivity testing ?

- (1) Kirby-Bauer disc diffusion method
- (2) Primary disc diffusion test
- (3) Epsilometer test
- (4) Agar dilution method

148. Aggregation of bacteria in slime leading to antibiotic resistance occur due to :

- (1) Co-agglutination
- (2) Biofilm formation
- (3) Mutation leading to altered site of antibiotics
- (4) Mutation generally a target by pass mechanism.

149. Which of following bacterial duo has defective cell wall ?

- (1) *Mycoplasma* and *pneumococcus*
- (2) *Mycoplasma* and protoplasts
- (3) Spheroplasts and *Vibrio cholerae*
- (4) Spheroplast and *Chlamydia*

150. Most pathogenic organisms need moderate temperature to grow, typically between 20°C and 45°C, such organisms are called :

- (1) Mesophiles
- (2) Psychrophiles
- (3) Thermophiles
- (4) Extremophiles

151. All of the following can be given for the treatment of Extended spectrum B-lactamases (ESBL) producing organisms, except :

- (1) Carbapenems
- (2) B lactam / lactamase inhibitor combination
- (3) 3rd generation cephalosporin's
- (4) Aminoglycoside

152. Cholera toxin (CT) – all are true, except :

- (1) Phage coded
- (2) Act by \uparrow CAMP
- (3) Ogawa and Inaba express CTX-1 and CTX-2 respectively
- (4) Both 01 and 0139 possess cholera toxin

153. Campylobacter Jejuni produces diarrhea by which of the following mechanism/s ?

- (1) By production of a heat-labile enterotoxin and a cytotoxin.
- (2) By Invasive property of the bacterium.
- (3) Both of the above mechanisms.
- (4) None of the above mechanisms.

154. The causative agent of rat-bite fever is :

- (1) Spirillum minus
- (2) Campylobacter fetus
- (3) Mobiluncus mulieris
- (4) Helicobacter cinaedi

155. The causative agent of shanghai fever is :

- (1) *Pseudomonas aeruginosa*
- (2) *Pseudomonas putida*
- (3) *Burkholderia mallei*
- (4) *B. Pseudomallei*

156. 'Safety pin appearance' on methylene blue staining is a characteristic feature of :

- (1) *Yersinia pestis*
- (2) *Pseudomonas aeruginosa*
- (3) *Burkholderia mallei*
- (4) *B. Pseudomallei*

157. HACEK group includes all except :

- (1) *Haemophilus aphrophilus*
- (2) *Acinetobacter baumannii*
- (3) *Eikenella corrodens*
- (4) *Cardiobacterium hominis*

158. Which of the following conditions of antibiotic treatment during acute infection will predispose patient to become carrier of the infective agents ?

- (1) Enteritis due to salmonella serotype typhimurium
- (2) Typhoid due to salmonella serotype typhi
- (3) Dysentery due to shigella dysenteriae
- (4) Enteritis due to campylobacter jejuni

159. Blood cultures are most likely to yield positive results during the first weeks of acute disease in patients with which of the following infections ?

- (1) Dysentery due to *S. dysenteriae*
- (2) Enteritis due to salmonella serotype typhimurium.
- (3) Enteritis's due to campylobacter jejuni
- (4) Enteric fever due to salmonella serotype typhi

160. A patient who get exposed to Hepatitis B infection; which of the following markers will always be present in the patient even he becomes chronic or recurrent ?

- (1) Hbs Ag
- (2) Anti HBs Ab
- (3) HBc AB
- (4) HBe Ag

161. Antimicrobial stewardship program in a hospital is required for the following reasons, except :

- (1) Rapid development of antimicrobial resistance.
- (2) Misuse and overuse of antimicrobials
- (3) Wide Spread use of antimicrobials in humans compared to animal industry
- (4) Poor antimicrobial research

162. CURB 65 score is used for :

- (1) Ventilator – associated pneumonia
- (2) Upper respiratory tract infections
- (3) Community – associated pneumonia
- (4) Tuberculosis

163. All the following automated systems can perform antimicrobial susceptibility testing, except :

- (1) VITEK 2 system
- (2) MALDI – TOF system
- (3) Phoenix system
- (4) Microscan Walk Away System

164. Which modification of PCR is used to detect RNA :

- (1) Nested PCR
- (2) Multiplex PCR
- (3) Reverse-transcriptase PCR
- (4) Real-time PCR

165. MALDI-TOF technology is used for :

- (1) Bacterial culture
- (2) Bacterial Identification
- (3) Antimicrobial susceptibility
- (4) All of the above

166. LAMP Assay has all the advantages over PCR, except :

- (1) Isothermal amplification
- (2) No need of thermo cycler
- (3) No need of gel documentation
- (4) Less false positive

167. What is the correct sequence of donning of PPEs ?

- (1) Gloves → Gown → Mask → Goggles
- (2) Gown → Mask → goggles → Gloves
- (3) Goggles → Gloves → Mask → Gown
- (4) Mask → Gown → Goggles → Gloves

168. Salvarsan was discovered by :

- (1) Karl Landsteiner
- (2) Paul Ehrlich
- (3) Gerhardt Domagk
- (4) Howard Florey

169. Electron microscope differs from light microscope in all, except :

- (1) Highest practical magnification
- (2) Medium of travel
- (3) Resolution
- (4) No need for specimen preparation

170. Modification of Gram staining include all, except :

- (1) Kopeloff and Behrman's modification
- (2) Kinyoun's modification
- (3) Jensen's modification
- (4) Preston and Morrell's modification

171. Flagella can be demonstrated by

- (1) India ink staining
- (2) Jannic acid staining
- (3) Albert staining
- (4) GMS staining

172. Which of the following is wrong ?

- (1) Jumbling motility – *Listeria*
- (2) Gliding motility – *Mycoplasma*
- (3) Cork screw motility – *Campylobacter*
- (4) Stately motility – *Clostridium*

173. Which of the following disinfectant is used in plasma sterilization ?

- (1) Formaldehyde
- (2) Glutaraldehyde
- (3) Hydrogen peroxide
- (4) Ethylene oxide

174. Rideal-Walker test - all are true, except :

- (1) It can be used to test phenolic, disinfectants only
- (2) It tests ability of the disinfectant to act in presence of organic matter.
- (3) Disinfectant is considered to be satisfactory if phenol coefficient is <1 .
- (4) *S. typhi* is used as a test organism.

175. Which of the following method may be used in bacteriology for epidemiological purpose except ?

- (1) Biotyping
- (2) Phage typing
- (3) Sew typing
- (4) Culture

176. The process used in laboratory to produce millions of copies of DNA is :

- (1) In situ polymerization
- (2) Polymerase chain reaction
- (3) Reverse transcriptase
- (4) Fluctuation test

177. Which test is done to confirm that coliform bacilli detected in the presumptive test of water are *Escherichia coli* ?

- (1) Eijkman test
- (2) Membrane filtration method
- (3) Turbidity test
- (4) Phosphatase test

178. Synergohymenotropic toxin includes :

- (1) α -haemolysin and panton valentine toxin
- (2) β -haemolysin and panton valentine toxin
- (3) γ -haemolysin and panton valentine toxin
- (4) α -haemolysin and γ - haemolysin

179. Community associated MRSA (CA-MRSA) differs from hospital associated MRSA by all, except :

- (1) These strains express mex A gene subtype IV, V VI.
- (2) Express more panton valentine (PV) toxin.
- (3) They cause more invasive skin and soft tissue infection.
- (4) Multidrug resistant

180. Borderline oxacillin resistant *S. aureus* (BORSA) strains, the mechanism of resistance is due to :

- (1) Mec A gene mediated
- (2) Alteration of penicillin binding Protein
- (3) Hyperproduction of B lactamase
- (4) Van gene mediated.

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