Pathology M.Amir F-15-129

1. Which of the following serological technique is based on clumping together of cells or particles as a result of antigen antibody reaction?
   a. ELISA
   b. ICT (Immunochromatography)
   c. Complement fixation test
   d. Precipitation test
   e. Agglutination test

2. Which one of the following is not a property of exotoxin?
   a. Lipo-polysaccharide in nature
   b. Antigenic
   c. Protein in nature
   d. Produced by Gram positive bacteria.
   e. Produced by Gram negative bacteria.

3. Which of the following disinfectants is most effective when its concentration is 70%?
   a. Gluteraldehyde
   b. Formldehyde
   c. Chlorine
   d. Alcohol
   e. Phenols

4. The most appropriate role of Gram's iodine in the Gram staining technique is:
   a. Decolorization
   b. Mordant and forms crystal violet iodine complex
   c. Counter staining
   d. Act as modarator
   e. Act as primary stain

5. Which of the following is an example of selective media?
   a. Chocolate agar
   b. Lowensteins Jensen's medium
   c. Blood agar
   d. MacConkey agar
   e. Nutrient agar

6. The correct temperature and time for sterilization by pasteurization is:
   a. 121°C for 15 min
   b. 62°C for 30 minutes
   c. 26°C for 30 minutes

d. 180°C for 2 hours
e. 100°C for 2 hours

7. **Which of the following organism is a facultative anaerobe?**
   a. *Clostridium species*
   b. *Staphylcocci*
   c. *Pseudomonas*
   d. *Mycobacterium tuberculosis*
   e. *Bacteroides*

8. **Which of the following statements is not true regarding transposons?**
   a. Also known as jumping genes
   b. Can jump within the chromosome
   c. Can jump from chromosomes to plasmids
   d. Can replicate independent of chromosomal replication
   e. Are nonessential component of bacterial genome

9. **Which statement is correct regarding bacterial growth curve?**
   a. The curve has log – lag – stationary and death phases in sequence
   b. The curve has lag – log – stationary and death phases in sequence
   c. Death rate is maximum during lag phase
   d. Growth rate is maximum in stationary phase
   e. Growth rate is minimum during stationary phase

10. **With regard to antibiotics which one of the following statements is correct?**
   a. Vancomycin and penicillins inhibit bacterial cell wall synthesis through the same mechanism.
   b. Cephalosporins and penicillins inhibi. bacterial cell wall synthesis through the same mechanism
   c. Vancomycin is a protein synthesis inhibitor
   d. Metronidazole has similar mechanism of action as erythromycin
   e. Chloramphenicol is a cell wall synthesis inhibitor

11. **Which of the following disinfectant cannot be used for skin?**
   a. Hydrogen peroxide
   b. Iodophores
   c. 70 –90% alcohol
   d. Chlorine — water supply, swimming pool, cleaning
   e. Tincture of iodine

12. **The predominant anaerobic bacterial flora present in feces is :**
   a. *E coli*
   b. *Clostridium*
   c. *Coliforms*
   d. *Enterococcus*
   e. *Bacterioides fragilis*

13. **Chocolate agar is an example of enriched medium used for culturing of:**
   a. Bacteria that grow on simple media
   b. Fastidious bacteria
   c. Non fastidious bacteria
   d. Wall less bacteria
   e. Obligate intracellular parasites

14. **Which of the following bacteria has flexible thin cell wall?**
   a. *Treponema*
   b. *Bordetella*
   c. *Legionella*
   d. *Histoplasma*
   e. *Brucella*

15. **Bacterial pili may enhance virulence of bacterial pathogens by:**
   a. Transporting nutrients
   b. Providing a means of attachment
   c. Increasing the surface area of bacteria.
   d. Being an endotoxin
   e. By acting as an exotoxin

16. **Which of the following is not a characteristic of bacterial capsules?**
   a. Antigenic
   b. Polysaccharide in nature
   c. Has an endotoxin like action
   d. Can be used in identification of bacteria
   e. Anti-phagocytic

17. **Typical stages of an infectious disease are?**
   a. Prodrome period, specific-illness period, incubation period and convalescence period
   b. Prodrome period, incubation period, specific-illness period and convalescence period
   c. Prodrome period, specific-illness period, convalescence period and incubation period

Incubation period, prodrome period, specific-illness period and convalescence period
e. Incubation period, specific-illness period, convalescence period and prodrome period

18. **Which of the following serological techniques is most sensitive?**
a. Agglutination test
b. ELISA
c. Complement fixation test
d. Heamagglutination test
e. Radial immunodiffusion test

19. **After recovery period, the individuals who may shed pathogens while remaining clinically well are called:**
a. Chronic patients
b. Subclinically infected patients
c. Shedders
d. Chronic carriers
e. Patients having latent infection

20. **Which of the microscopic techniques is specific for diagnosis?**
a. Light microscopy
b. Compound microscopy
c. Electron microscopy
d. Immunofluorescent microscopy
e. Fluorescent microscopy

21. **A 60 years old man developed shock. After recovery he was found to have focal neurological signs due to brain damage. The most likely changes expected to be seen in brain biopsy would be:**
a. Coagulative necrosis
b. Liquefactive necrosis
c. Acute hemorrhagic change.
d. Granulomatous change.
e. Lacunars infract.

22. **The epithelium of the respiratory tract of a 35 year old habitual smoker is most likely to show:**
a. Stratified squamous metaplasia
b. Simple squamous metaplasia.
c. Mucus hyperplasia.
d. Smooth muscular hyperplasia.

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e. Squamous cell anaplasia.

23. **During atrophy of cell:**
    a. Protein synthesis increases.
    b. Cell disappears.
    c. Cell size decreases
    d. Cell size increases.
    e. Cellular organelles swell up.

24. **In radiation injury basic mechanism is :**
    a. Free radical formation
    b. Increase ATP production.
    c. Decrease intracellular Na...
    d. Decrease intracellular Ca.
    e. Inhibit protein synthesis.

25. **A lesson shows non cellular central material surrounded by large multinucleated giant cell and epitheloid cells, the most likely lesion will be:**
    a. Fibrinoid necrosis.
    b. Gangrenous necrosis.
    c. Coagulative necrosis.
    d. Caseous necrosis
    e. Liquefactive necrosis.

26. **A man of 22-years develops marked right lower quadrant abdominal pain over the past day. Laparoscopic surgery is performed, and the appendix is swollen, erythematous, and partly covered by a yellowish exudate. It is removed, and a microscopic section shows infiltration with numerous neutrophils. The pain experienced by this patient is predominantly the result of which of the following two chemical mediators?**
    1. Complement C3b and IgG
    2. Interleukin-1 and tumor necrosis factor
    3. Histamine and serotonin
    4. Prostaglandin and bradykinin
    5. Leukotriene and HPETE.

27. **Woman 40-years had laparoscopic surgery 3 months ago. Now she has a small 0.5 cm nodule beneath the skin at the incision site that was sutured. Which of the following cell types is most likely to be most characteristic of the inflammatory response in this situation?**

1. Mast Cell
2. Eosinophil
3. Giant Cell ✓
4. Neutrophil
5. Plasma Cell

28. Woman 43-year had a chronic cough with fever & weight loss for past month. A chest radiograph reveals multiple nodules from 1 to 4 cm in size, along with cavitations in the upper lobes. A sputum sample reveals the presence of acid fast bacilli. Which of the following cells is the most important in the development her lung lesions?
1. Macrophage
2. Fibroblast
3. Neutrophil
4. Mast Cell
5. Platelet

29. An inflammatory process that has continued for 3 months includes the transformation of tissue macrophages to epithelioid cells. There are also lymphocytes present. Over time, fibroblasts lay down collagen as the focus of inflammation heals. These events are most likely to occur as an inflammatory response to which of the following infectious agents?
1. *Mycobacterium tuberculosis*
2. *Pseudomonas aeruginosa*
3. Cytomegalovirus
4. *Giardia lambli*
5. HIV

30. The most potent vasodilator in body is
1. Bradykinin
2. Nitric oxide & neutrophils
3. Nitric oxide & histamine
4. Histamine
5. TNF-α

31. Chemotaxis is the process in which:
a. There is phagocytosis of foreign material.
b. Exudation of fluid occurs.
c. Leukocytes are attracted to & move towards the sites of injury.

d. Endothelial cell expansion occurs.
e. Transmigration of lymphocytes.

32. A 20 year old man experienced painful micturition for 4 days. Urethritis is suspected and Neisseria gonorrheae is cultured. Numerous neutrophils are present in a smear of exudate from the urethra. These neutrophils are most likely to have been caused to undergo diapedesis to reach the organisms as a consequence of release of which of the following chemical mediators?
a. Histamine
b. Prostaglandin
c. Hageman factor
d. Bradykinin
e. Complement c5a

33. Fibrinous inflammation is typically found where:
a. blood vessels
b. skin
c. pericardium
d. bowel mucosa
e. endocardium

34. Erythema and later on blisters appear on a child's hand after touching a hot pot on a stove. Which of the following terms best describe this process?
1. Fibrinous inflammation
2. Purulent inflammation
3. Serous inflammation
4. Ulceration
5. Granulomatous inflammatior

35. Which one of the listed substances is produced by the action of lipoxygenase on arachidonic acid, is a potent chemotactic factor for neutrophils, and causes aggregation and adhesion of leukocytes?
1. C5a
2. Prostacyclin
3. IL-8
4. Thromboxane A2
5. Leukotriene B4

36. A 30 year old patient presented with a hard, non-tender swelling over the jaw which developed slowly over the last six months following tooth extraction. The swelling shows sinus tracts through which sulfur granules containing pus was draining. Which of the following is the most likely causative agent?
a. *Staphylococcus aureus*
b. *Enterococcus*
c. *Lactobacillus*

d. *Actiomyces israelii*
e. *Bacteroides fragilis*

37. **Which of the following organisms can cause food poisoning?**
a. *Staphylococcus aureus*
b. *Enterococcus*
c. Enterotoxigenic *E. coli*
d. Only 'A' and 'C' are correct
e. None of the above

38. **Which of the following bacilli produce a toxin which inhibits elongation factor-II (EF-2). It virtually stops protein synthesis which results in necrosis?**
a. *Bacillus stearothermophilus*
b. *Bacillus anthracis*
c. *Corynebacterium diphtheriae*
d. *Clostridium perfringens*
e. *Clostridium tetani*

39. **Which one of the following non-spore forming filamentous Gram positive rods are weakly acid fast on ZN staining?**
a. *Corynebacterium diphtheriae*
b. *Listeria monocytogenes*
c. *Actinomyces israelii*
d. *Nocardia asteroids*
e. *Gardnerella vaginalis*

40. **Flaccid paralysis is caused by:**
a. *Clostridium difficile*
b. *Clostridium perfringens*
c. *Clostridium tetani*
d. *Clostridium botulinum*
e. 'C' and 'D' are correct

41. **A 60 year old immunocompromised patient on renal dialysis complained of tenderness around the peritoneal catheter. On culturing the catheter tip, Gram positive, catalase positive, coagulase negative cocci were isolated. Which of the following is the most likely causative agent?**
a. *Staphylococcus aureus*
b. *Enterococcus*
c. *Lactobacillus*
d. *Staphylococcus epidermidis*
e. *Bacteroides fragilis*

42. An eight year old boy developed influenza like signs & symptoms with production of rusty sputum. He was suspected to have pneumonia. Sputum sample was cultured revealing α-hemolytic Gram positive cocci, giving optochin sensitivity. Most likely organism will be?
   a. *Streptococcus pneumoniae*
   b. *Enterococci*
   c. *Staphylococcus aureus*
   d. *Streptococcus agalatae*
   e. *Streptococcus pyogenes*

43. After extraction of wisdom tooth, a 20 year old male student was diagnosed as a case of sub-acute bacterial endocarditis. Laboratory tests revealed α-hemolytic Gram positive cocci. Mark the causative organism.
   a. *Staphylococcus aureus*
   b. *Staphylococcus epidermidis*
   c. *Streptococcus pneumoniae*
   d. *Streptococcus viridians*
   e. *Enterococcus fecalis*

44. While walking in a garden, a labourer had a deep prick on the right foot. The condition of his wound aggravated and it refused to heal. Two weeks later he visited a physician who diagnosed the wound as a malignant pustule. This lesion is caused by:
   a. *Bacillus stearothermophilus*
   b. *Bacillus anthracis*
   c. *Corynebacterium diphtheriae*
   d. *Clostridium perfringens*
   e. *Clostridium tetani*

45. Aschoffs nodules are caused by:
   a. Methicillin resistant *Staph. aureus*
   b. Hyaluronidase producing *Staphylococci*
   c. Group A, β-hemolytic *Streptococci*
   d. *Pseudomonas aeruginosa*
   e. None of the above

46. A young girl developed vomiting & nausea 3-4 hours after ingestion of reheated fried rice. On Gram staining Gram positive rods were identified. Which of the following is the most likely causative agent?
   a. *Staphylococcus aureus*
   b. *Bacillus cereus*

c. *Clostridium perferingens*
d. *Listeria monocytogenes*
e. *Enterococcus fecalis*

47. A patient presented to emergency department with spastic paralysis and locked jaw. He had history of road traffic accident a few days back. Laboratory results revealed Gram positive spore forming anaerobes. What is the mechanism of action of this organism?
a. Inhibition of Acetylcholine
b. Formation of Protective antigen
c. Inhibition of Glycine and GABA
d. Stimulation of Proteins
e. Activation of acetylcholine esterase

48. A young married women was received in gynaecology department with history of Increased amount of thin, grey-white, fishy vaginal discharge for the last few days. Gram staining revealed clue cells. Whiff test was also positive. Which one of the following is the most likely causative agent?
a. Candida albicans
b. Trichomonas vaginalis
c. *Gardnerella vaginalis*
d. *Lactobacilli*
e. *Gonococci*

49. A shephard presented to the dermatology department with painless ulcer with black eschar on his hand. He had history of trauma a few days back. Which of the following Gram positive rod, also used for bio-terrorism is the most likely causative agent?
a. *Bacillus anthracis*
b. *Clostridium tetani*
c. *Bacillus cereus*
d. *Clostridium perferingens*
e. *Corynebacterium diphtheria*

50. A pre-mature baby boy developed meningitis one week after birth. Mother had history of ingestion of unpasteurized milk and cheese. Gram staining of CSF revealed L-shaped Gram positive rods having tumbling motility. What is the most likely causative agent?
a. *Neisseria meningitidis*
b. *Streptococcus pneumoniae*
c. *Listeria monocytogenes*
d. *Streptococcus agalactiae*
e. *E.coli*

51. A 30 years old female attended your clinic i.e. with the complaint of vaginal itching and malodorous discharge. You should include one of the following in your work up for the diagnosis.
a. Ova and parasite fecal smear
b. Wet mount of vaginal fluid
c. Specific serologic test
d. Stool culture
e. None of the above

52. A patient was received in emergency department with complaints of low grade fever, chronic cough, night sweats and body aches. Mycobacterium tuberculosis was among the top differentials. Which media is used to culture this pathogen?
a. Lofflers medium
b. Lowenstein- Jensen media LJ
c. Tellurite medium
d. Chocolate agar
e. Blood agar

53. After successful diagnosis and treatment of a patient of malignant tertian malaria you should tell your patient:
a. There is little chance of relapse in 1–3 years
b. Hypersensitivity to the parasite may have developed
c. Due to possible resistance add tional course of treatment is required
d. Patient must avoid mosquito bites as relapse of malaria may be induced
e. All of the above

54. Cysticercus cellulosae is found in:
a. Cow
b. Pig
c. Human
d. Dog
e. 'B' and 'C' are correct

55. A known case of tuberculosis or ATT (anti-tuberculosis therapy), came to the outpatient department for follow up. His tuberculin skin test was positive. Tuberculin skin tests is a type of:
a. Immediate hypersensitivity reaction
b. Type IV hypersensitivity reaction
c. Type II hypersensitivity reaction
d. Type III hypersensitivity reaction

A. Type I hypersensitivity reaction

56. In which of the following parasites the rapidly multiplying crescentic cells (tachyzoites) initiate the actual stage of the disease. Subsequently they penetrate the nerve cells, especially of the brain and eye where they multiply slowly (bradyzoites) to form tissue cysts, initiating the chronic stage of the disease?
    a. Bebesia microti
    b. Isospora belli
    c. Sarcocystis
    d. Microsporidia
    e. **Toxoplasma gondii**

57. A patient with leonine (lion-like) facies and hypo-pigmented macular skin lesions came to the medical outpatient department. He was suspected to have leprosy. This mycobacterium is stained by which of the following staining technique?
    a. **Modified ZN staining with weak acid**
    b. PAS staining
    c. Albert staining
    d. ZN staining technique
    e. Gram staining technique

58. A sputum smear was stained with ZN staining. The color of the primary stain was not washed with acid. This character of Mycobacterium is due to which component of cell wall?
    a. Thick peptidoglycan
    b. Lipopolysaccharide
    c. Capsule
    d. **Complex lipids and mycolic acid**
    e. Complex polypeptides

59. An immunocompromised patient with prosthetic hip joint developed infection with Mycobacterium. Which of the following rapidly growing non-chromogenic atypical Mycobacterium is responsible for his disease?
    a. Mycobacterium avium-intercellulare complex
    b. Mycobacterium kansasii
    c. **Mycobacterium fortuitum-chelonei complex** — Rapidly Growing (Group IV)
    d. Mycobacterium marinum
    e. Mycobacterium scrofulaceum

60. Which of the following pathogens is the commonest cause of UTI?
    a. Klebsiella
    b. Proteus

c. Enterococcus
d. E. coli
e. Pseudomonas
61. Which of the following blood agar plates
a. Klebsiella
b. Proteus

c. Enterococcus
d. E. coli
e. Pseudomonas

61. Which of the following produces swarming growth characteristically over blood agar plate?
a. Klebsiella
b. Proteus
c. Salmonella
d. Shigella
e. Enterobacter

62. Which of the following bacteria causes the most severe form of bacillary dysentery?
a. Salmonella typhi
b. Shigella flexneri
c. Shigella boydii
d. Shigella sonnei
e. Shigella dysenteriae

63. Widal test is used to detect:
a. Antigens of Salmonella
b. Antibodies against salmonella
c. Rise in antibody titer in patient's serum against salmonella
d. Flagellar antigens of Salmonella
e. Somatic antigens of Salmonella

64. Crescentic gametocytes are observed in:
a. P. vivax
b. P. ovale
c. P. malariae
d. P. falciparum
e. 'A' and 'B' both are correct

65. Which of the following pathogens is the commonest cause of traveler's diarrhea?
a. Enterohemorrhagic E. coli (EHEC)
b. O157:H7 strains of E. coli
c. Eneroinvasive E. coli
d. Enterotoxigenic E. coli
e. Shiga toxin producing E.coli

66. Each of the following parasites is transmitted by mosquitoes EXCEPT:
a. Plamodium falcipaum
b. Leishmania Donovani
c. Plasmodium vivax
d. Wuchereria bancrofti
e. Dengue virus

67. Black water fever is a special manifestation of malaria caused by
   a. P. falciparum
   b. P. malariae
   c. P. ovale
   d. P. vivax
   e. P. knowlesii

68. A 35 yrs old male presents in emergency with c/o high grade fever and right upper quadrant pain. He gives h/o passing bloody stools 14 days back. O/E there is tenderness in the right upper quadrant. The most likely cause of infection is:
   a. Giardia lamblia
   b. Vibrio cholera
   c. Entamoeba histolytica
   d. Cryptosporidium
   e. None of above

69. A 35 yrs old Indain comes to OPD with c/o intermittent fever, weight loss, petechial hemorrhages and hyperpigmentation of the skin. He also has hepatomegaly & massive splenomegaly. The most likely cause of infection is:
   a. Leishmania tropica
   b. Leishmania Mexicana
   c. Leishmania donovani
   d. Leishmania major
   e. Leishmania braziliensis

70. Parasitized red cells are enlarged in
   a. P. vivax
   b. P. ovale
   c. P. malariae
   d. P. falciparum
   e. 'A' and 'B' both are correct

71. Essential structural components of a mature virion are:
   a. Nucleic acid, capsid and envelope
   b. Nucleic acid, capsid, envelope and matrix protein
   c. Nucleic acid, capsid, envelope and DNA polymerase
   d. Nucleic acid and capsid
   e. Genome, capsid and envelope

72. Viral genome can be:
   a. dsDNA or dsRNA
   b. dsDNA and ssRNA
   c. ssDNA and dsRNA
   d. ssDNA and ssRNA
   e. All of the above

73. Chloroform and ether can inactivate which of the following virus particles?
   a. Naked viruses only

b. Enveloped viruses only
c. Some naked and some enveloped viruses
d. Both 'A' and 'B' are correct
e. Both 'B' and 'C' are correct

74. Continuous cell lines for virus culture are derived from:
f. HeLa cells
g. Cervical cancer cells
h. Human amnion cells
i. Both 'A' and 'B' are correct
j. Both 'B' and 'C' are correct

75. Size of the largest virus particle is:
a. 100 nm
b. 200 nm
c. 300 nm
d. 400 nm
e. 500 nm

76. Which of the following convert plasma protein fibrinogen into the insoluble fibrous protein fibrin?
a. Thrombin
b. Prothombin
c. Fibrinogen
d. Fibrinonectin
e. Epinephrine

77. Endothelial injury ,stasis or turbulence of blood flow and blood hypercoagubility form so called:
a. Coagulation cascade
b. Extrinsic pathway
c. Intrinsic pathway
d. Virchows triad
e. Plasminogen plasma system

78. If the blood supply of an organ is compromised, minimum how much time is required to show demonstrable H stologic findings?
a. 0-60 sec
b. 2-4 hrs
c. 4-12 hrs
d. 12-24 hrs
e. 24-36 hrs

79. Which of the following is mechanism of edema in patients with congestive heart failure?
a. Decreased plasma oncotic pressure

b. Increased hydrostatic pressure
c. Endothelial damage
d. Lymphatic obstruction
e. Increased vascular permeability

80. Reduced plasma oncotic pressure is most important mechanism of edema in:
a. Nephrotic syndrome
b. Congestive heart failure
c. Pedal edema due to deep vein thrombosis
d. Edema due to lymphatic obstruction
e. Brain hemorrhage

81. Turner's syndrome has:
a. 45 chromosomes
b. 47 chromosomes
c. 44 chromosomes
d. 48 chromosomes
e. 49 chromossomes

82. Indication for prenantal analysis:
a. Mother age < 20years
b. Mother age 25 years
c. Mother > 35years
d. Mother with anemia
e. Mother age 30 years

83. Following is not autosomal dominant disease:
a. Huntington disease
b. Neurofibromatosis
c. Myotonic dystrophy
d. Tuberous sclerosis
e. Hemochromatosis

dominant

84. Cytogenetics include following technique:
a. CBC
b. Serum electrolyte
c. Spectrophotometry
d. FISH
e. C-reactive protein

85. Mitochondrial DNA is always inherited from:

a. Mother
b. Father
c. Both
d. 20% Mother' side
e. 60% Father's side

86. **On TSI agar vibrio shows:**
1. Alkaline slant acid butt
2. Acid butt acid slant
3. Acid slant alkaline butt
4. Acid slant acid butt with H2S production
5. Alkaline slant alkaline butt

87. **Cholera toxin causes:**
1. Stimulation of adenylate cyclase
2. Inhibition of adenylate cyclase
3. Stimulation of guanylate cyclase
4. Inhibition of guanylate cyclase
5. Both 'A' and 'C' are correct

88. **A 10 yrs old girl presents with acute onset of lower limb weakness associated with fever and foul smelling bloody diarrhea. The most likely cause of infection is:**
1. Vibrio cholerae
2. Vibrio para haemolyticus
3. Campylobacter jejuni
4. Campylobacter intestinalis →
5. Helicobacter pylori

89. **MALT lymphomas are associated with:**
1. Campylobacter jejuni
2. Helicobacter pylori →
3. Vibrio cholerae
4. Hemophilus influenze
5. Yersinia pestis

90. **A 25 yrs old male presents to ENT specialist with severe ear ache and greenish ear discharge. He is a regular swimming pool user. Pus culture shows non lactose fermenting colonies on MacConkey's agar. The most likely cause of infection is:**

1. Proteus vulgaris
2. Staphylococcus aureus
3. Pseudomonas aeruginosa
4. Campylobacter
5. Yersinia psedotuberculosis

91. A 32 year old man admitted in medical ward for foul smelling diarrhea containing blood developed symptoms of Guillian Barré syndrome after 48 hours. The most likely pathogen is:
1. Shigella
2. Escherichia coli
3. Campylobacter jejuni
4. Helicobacter pylori
5. Vibrio cholera

92. What is the basis of the noninvasive breath test used to diagnose H.pylori infection?
1. Catalase production
2. Coagulase production
3. Carbon dioxide production
4. Urease production
5. Hydrogen sulfide production

93. Definitive diagnosis of recent dengue virus infection is established by:
1. Decreased platelet count
2. Anti- dengue IgG antibodies
3. Anti- dengue IgM antibodies
4. Increased haematocrit (PCV)
5. Decreased MCV

94. The complication(s) of mumps especially in pre-pubertal age group is/are:
1. Orchitis — in POST Pubertal age
2. Otitis media
3. Oophoritis
4. Cervical lymphadenitis
5. Orchitis and oophoritis

95. Influenza is characterized by which of the following signs and symptoms?
1. Malaise and fever
2. Muscle pain and dry cough
3. Reyes syndrome
4. All of the above

fever, myalgias, headach, sore throat, cough develop suddenly, sever muscle pain. Reyes syndrome

5. Only 'A' and 'B' are correct

96. **Which of the following is not a property of Rhabdoviruses?**
1. They are enveloped viruses of the size of 75nm x 180nm
2. Their composition is RNA (4%), protein (67%), lipid (26%) and carbohydrate (3%)
3. Their genomes are ssRNA, linear, non-segmented and negative sense
4. Their replication is very specific and it occurs in nucleus
5. Coyotes are highly susceptible to them

97. **Which of the following is not a complication of measles?**
1. Otitis media
2. Giant cell pneumonia
3. Acute encephalitis
4. SSPE
5. Post-auricular lymphadenopathy

98. **Fetal malformations occur in which percentage if rubella is acquired during first trimester of pregnancy?**
1. 85%
2. 75%
3. 65%
4. 55%
5. 50%

99. **Which form of polio vaccine(s) can produce best results?**
1. Live attenuated vaccine
2. Killed virus vaccine
3. Subunit vaccine
4. Conjugated vaccine
5. Killed and live attenuated vaccines given together

100. **Mortality rate in Ebola virus disease can be as high as:**
1. 40%
2. 50%
3. 60%
4. 70%
5. 90%

101. **The extent to which neoplastic cells resemble their normal counterparts both morphologically and functionally is known as?**
a. **Differentiation**
b. Anaplasia
c. Neoplasia
d. Dysplasia
e. Metaplasia

102. Carcinogenic agents which can induce tumors in initiated cells, but they are non tumorigenic by themselves are known as:
a. Initiators
b. Preneoplastic clones
c. Polyclonal
d. Promoters
e. Binding agents

103. Which of the following carcinogenic agents are used as cancer chemotherapeutic drugs?
a. Benzol
b. Dibenz
c. Naphthylamine
d. Alkylating agents
e. Nitrosamine

104. Chromosomal translocation t(8,14) relate to which of the following tumors?
a. Burkitts lymphoma
b. Ewing sarcoma
c. Follicular lymphoma
d. Squamous cell carcinoma
e. Melanoma

105. In which of the following syndrome there are increased chances of skin cancers?
a. MEN syndrome
b. Carneys syndrome
c. Xeroderma pigmentosa
d. FAP syndrome
e. Marfan syndrome

106. The cell involved in the first line of defense against viral infection is:
a. B-cell
b. T-cell
c. N-K cell
d. Macrophages
e. Dendritic cell

107. A complement component which is strongly chemotactic for neutrophils is:
a. C3
b. C3b
c. C5b
d. C9
e. C5a

108. Which cell type produces antibodies?
a. A Macrophages

b. T-lymphocytes
c. NK
**d. Plasma cells**
e. Eosinophils

109. **Toll like receptors are present in:**
a. Cell wall
**b. Plasma membrane**
c. Cytosol
d. nucleus
e. endoplasmic reticulum

110. **The first line of defense against microbes is:**
**a. innate immunity**
b. adaptive immunity
c. humoral immunity
d. cell mediated immunity
e. hypersensitivity

111. **Acute gingivostomatitis is caused by which one of the following viruses?**
a. Cytomegalovirus
b. Respiratory syncytial virus
**c. Herpes simplex type-1 virus**
d. All of the above (a-c)
e. Only b and c are correct

112. **The presence of Hepatitis B antigen means your patient is:**
a. Non immune to infection with HBV
b. Infected with hepatitis B virus
c. HBV is replicating in the body at low rate
d. All (a-c) are correct
**e. Only b and c are correct**

113. **Hepatitis A virus belongs to with virus family:**
a. Flaviviridae
**b. Picornaviridae**
c. Enteroviridae
d. Calciviridae
e. Paramyxoviridae

114. **Which of the following DNA Viruses contain a virion associated DNA polymerase?**
a. Hepatitis B virus
b. Adenovirus
**c. Herpes simplex virus type-1**
d. All of the above (a-c)