

- Fungal cells that reproduce by budding are seen in the infected tissues of patients with:
- Mycetoma, candidiasis, and mucormycosis.
 - Candidiasis, cryptococcosis, and sporotrichosis.
 - Tinea corporis, tinea unguium, and tinea versicolor.
 - Sporotrichosis, mycetoma, and aspergillosis.
 - Tinea corporis, aspergillosis, and tinea versicolor.
- Q.44 Which of the following fungi is most likely to be found within reticuloendothelial cells?
- Candida albicans.
 - Histoplasma capsulatum.
 - Cryptococcus neoformans.
 - Sporothrix schenckii.
 - Tinea versicolor.
- Q.45 Infection by a dermatophyte is most commonly associated with:
- Inhalation of organism from contaminated bird faeces.
 - Intravenous drug abuse.
 - Adherence of organism to perspiration moist skin.
 - Faecal-oral transmission.
 - Deep penetrating wound
- Q.46 A 50-year-old, immunocompromised female is clinically diagnosed to have meningitis. Latex agglutination test for capsular polysaccharide antigen on CSF is positive. Which one of the following organisms is the most likely cause?
- Aspergillus fumigatus.
 - Candida albicans.
 - Histoplasma capsulatum.
 - Cryptococcus neoformans.
 - Mucor species.
- Q.47 Patients with tuberculoid leprosy have granulomas that have elevated amounts of IL-2, IFN- γ , and TNF- β . The immune cell responsible for this pattern of cytokine production is the:
- Cytotoxic T lymphocyte
 - Epithelioid cell
 - macrophage
 - TH₂ cell
 - TH₁ cell
- Q.48 Examples of innate resistance processes include:
- Transplacental passage of IgG.
 - Response to vaccination.
 - Flushing action of tears.
 - Recovery from an infection.
 - Administration of antitoxin.
- Q.49 For HBV (hepatitis B virus) to cause liver cancer following is a pre requisite:
- Integration of viral DNA into host genome
 - Chronic inflammation of liver
 - Cirrhosis of liver
 - Liver cell hyperplasia
 - Regenerative nodule formation
- Q.50 The most frequently developing malignancy under the effect of ionizing radiation is:
- Bone sarcoma
 - Leukaemia
 - Thyroid cancer
 - Skin cancer
 - Lung cancer
- Q.51 A terminally ill cancer patient presents with extreme weakness, loss of weight, anorexia and anaemia. On examination he is emaciated. Which of the following could explain the state of cancer cachexia in him?
- Nutritional deficiency
 - Anorexia
 - High metabolic rate
 - Effect of cytokines
 - Infections
- Q.52 A 40-year old chronic smoker develops gradually a moon like face, purple stria on the abdomen and cushingoid features. He also gives history of chronic cough and recent episodes of haemoptysis. Chest x-ray revealed a tumour at carina. Which of the following can explain his condition?
- Adenoma of adrenal cortex
 - Adenoma of anterior pituitary
 - Paraneoplastic syndrome
 - Carcinoma of anterior pituitary
 - Carcinoma of adrenal cortex
- Q.53 Which of the following characteristics of tumours is best diagnostic of malignancy?
- Local invasion
 - Lymphovascular invasion
 - Irregular margins
 - Non-encapsulation
 - Metastasis
- Q.54 In hereditary Retinoblastoma the mutated Rb gene is:
- Inherited from one parent
 - Inherited from both parents
 - Mutated sporadically
 - Absent
 - Mutated in somatic cells

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- Q.53 Which one of the following is the most common lower respiratory pathogen in infants?
 a) Rhinoviruses. d) Coxsackie virus.
 b) Adenovirus. e) Rota virus.
 c) Respiratory syncytial virus. ✓
- Q.54 A 25-year-old female presents with recent onset of vaginal discharge. Physical examination reveals multiple clear vesicles on her vulva and vagina. A smear of material obtained from one of these vesicles reveals several multinucleated giant cells with intranuclear inclusions and ground glass nuclei. The vesicles are most likely the result of infection with which of the following organisms?
 a) Herpes simplex virus (HSV). ✓ d) Candida albicans.
 b) Cytomegalovirus (CMV). e) Trichomonas vaginalis.
 c) Human papilloma virus (HPV).
- Q.55 Plasmid carries different genes. Which of the following gene is not carried by plasmid?
 a) Gene for antibiotic resistance. d) Gene for its replication.
 b) Gene for spore formation. ✓ e) Gene for resistance to heavy metals.
 c) Gene for conjugation
- Q.56 Three organisms, Streptococcus pneumoniae, Neisseria meningitidis, and Haemophilus influenzae cause the vast majority of cases of bacterial meningitis. What is the MOST important pathogenicity mechanism common among these organisms?
 a) Capsule. ✓ d) Flagella
 b) Protein A. e) Beta-Lactamase.
 c) Endotoxin
- Q.57 Which of the following Anti-microbial drug does not act on the bacterial cell wall:
 a) Incomycin. ✓ d) Cephalosporin.
 b) Penicillin. e) Vancomycin.
 c) Vancomycin.
- Q.58 Which Type of bacteria lack superoxide dismutase enzyme?
 a) Obligate anaerobes. ✓ b) Facultative anaerobes.
 b) Heterotrophs. e) Autotrophs.
 c) Aerobes.
- Q.59 Metachromatic granules are a characteristic feature seen in which of the following bacterium:
 a) Corynebacterium diphtheriae. ✓ d) Mycobacterium tuberculosis.
 b) Vibrio cholerae. Unregistered Version http://www.adaaphoto.com e) Streptococcus pneumoniae.
 c) Mycobacterium leprae.
- Q.60 Most likely causative organism responsible for swelling, redness, crepitation and foul smelling discharge from a wound caused by a road side accident is:
 a) Clostridium perfringens. ✓ d) Clostridium botulinum
 b) Staphylococcus aureus. e) E. Coli
 c) Bacillus anthracis.
- Q.61 Blood culture from a patient demonstrates Gram positive rods. Klebsiella and Salmonella are two diagnostic possibilities. Which of the following would be most suitable for distinguishing these two organisms?
 a) Lancefield grouping. d) Lactose fermentation. ✓
 b) Coagulase test. e) Spore formation.
 c) Dark field examination.
- Q.62 Flaccid paralysis is the result of infection with the following organisms:
 a) Rhabdovirus and Corynebacterium diphtheriae. d) Rhinovirus and Clostridium difficile.
 b) Polio virus and Clostridium tetani. e) Rabies virus and Clostridium perfringens.
 c) Polio virus and Clostridium botulinum. ✓
- Q.63 A 2-year-old boy has surgery to correct a congenital urinary tract obstruction. Post-operatively an indwelling urinary catheter is placed that results in a severe urinary tract infection. Urine culture grows out a lactose-negative, oxidase positive, gram-negative rod. Which of the following organisms is most likely to cause the boy's infection?
 a) Escherichia coli. d) Pseudomonas aeruginosa. ✓
 b) Klebsiella pneumoniae. e) Staphylococcus saprophyticus.
 c) Proteus mirabilis.
- Q.64 Drum stick or racket shaped spores are produced by which of the following organisms?
 a) Bacillus. d) Clostridium Welchii.
 b) Clostridium. e) Bacillus cereus.
 c) Clostridium tetani. ✓
- Q.65 Staphylococci and streptococci can be differentiated with surety on the basis of which of the following:
 a) Coagulase test. ✓ d) Oxidase test.
 b) Gram's staining. ✓ e) Rapid urease test and colony morphology.

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- Q.55** Blood-grouping before blood transfusion involves use of IgM antibodies against blood group A and B antigens on erythrocytes. A positive reaction is an aggregate formation that is known as:
- Complement activation.
 - Agglutination.
 - Neutralization.
 - Opsonization.
 - Precipitin reaction
- Q.56** At the site of healing, which of the following cells performs the most important function for the healing phenomenon to start?
- Plasma cells
 - Neutrophils
 - Macrophages
 - Platelets
 - Fibroblasts
- Q.57** A full term female presents to Obstetrics department where she was diagnosed as having abruptio placenta. Post partum, her condition deteriorated with complains of chest pain, dyspnoea; she then developed cyanosis and went into a state of shock. Which of the following events can explain her condition?
- Amniotic fluid embolism
 - Septicemia
 - Disseminated intravascular coagulation
 - Excessive blood loss
 - Myocardial infarction
- Q.58** During earthquake disaster in a roof collapse, a 40-year old healthy male got crush injury of his right leg without any fractures. He was rescued and brought to the hospital where he collapsed and went into shock. Which of the following can explain his condition?
- Cardiogenic shock
 - Septic shock
 - Hypovolemic shock
 - Pulmonary embolism
 - Gas gangrene
- Q.59** A 75-year old obese bed-ridden female due to fracture neck of femur, dies suddenly. Autopsy was carried out to find out the cause of death. Massive pulmonary thrombo-embolism was detected. Which of the following could be the origin of this embolus?
- Deep veins of the legs
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- Q.60** In the above scenario which factor operated the most to initiate this lesion?
- Hypercoagulability of blood
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- Q.61** A 2-year old boy presented to paediatric ward with hepatomegaly, slow growth and attacks of hypoglycemia. He was diagnosed as a case of Type-1 Glycogen storage disorder (von Gierke disease). Which of the following explains this disorder?
- An autosomal recessive disorder
 - Autosomal dominant disorder
 - Sex linked recessive disorder
 - Multifactorial inheritance
 - Sporadic disorder
- Q.62** Gene penetrance determines the phenotypic expression of an autosomal dominant genetic disorder. What is meant by 50% gene penetrance?
- Half of the gene carriers will remain healthy
 - 50% of persons carrying the gene will manifest the disorder
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- Q.63** A 60 years old chronic heavy smoker gets an attack of haemoptysis. Bronchoscopic biopsy was done to find out any bronchial pathology. Which of the following would be a clinically significant smoking associated benign change in the bronchial lining mucosa?
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- During inspection of school, the school medical officer noticed that students are using plus desks. What should he tell to the head master, that upon use of such desks for a longer period may result in students, the problems of:
- Q.9
- a) Elbows
b) Knees
c) Back
d) Shoulders
e) Heels
- A teacher noticed a student scratching intensely his scalp and on the back of ears as well, during the class. What problem the student may have:
- Q.10
- a) Allergy
b) Pediculosis
c) Ring worm infection
d) Scabies
e) Tick infestation
- A school administration has provided health services including emergency services, mental health, health education and service for special children. Which essential health care service is still needed to be included:
- Q.11
- a) Dental health services
b) Surgery services
c) Domiciliary services
d) Orthopaedic services
e) Disaster control measures
- A 10 years old boy reported to the hospital after snake bite. On examination, petechial haemorrhages were seen. Bleeding per rectum and gums was observed. The toxic substance in the snake venom was:
- Q.12
- a) Neurotoxin
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- A mother brings her three months old son for vaccination who is having cerebral palsy. Which one of the vaccines included in EPI schedule must be avoided in such child:
- Q.13
- a) DPT vaccine
b) OPV
c) Measles vaccine
d) Hib vaccine
e) BCG vaccine
- A woman reports for vaccination against tetanus only one month before delivery for the 1st time to prevent tetanus infection, one should give:
- Q.14
- a) T.T. two doses two weeks apart
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e) TT₁ at present and TT₂ after delivery
- A patient presented with painful cutaneous ulcer on forearm. On enquiry it was revealed that ulcer started as a granular nodule after some insect bite when he was in Baluchistan. The symptoms indicate bite by:
- Q.15
- a) Xenopsylla cheopis
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- Plague bacilli are transmitted through rat flea. This biological transmission is:
- Q.16
- a) Propagative
b) Mechanical
c) Cyclo-propagative
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- Earthquake in Azad Kashmir in 2005 resulted in countless deaths and injuries. Several NGOs and Govt. institutions rushed to combat the immediate post-disaster phase. The main point they focussed on was:
- Q.17
- a) Provision of communication means
b) Vaccination against infection diseases
c) Provision of safe water and food
d) Disposal of solid wastes
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- Ideally a normal pregnant lady requires 12 ante-natal visits. Keeping in view the situation of Pakistani ladies, how much visits are advised:
- Q.18
- a) 5
b) 3
c) 4
d) 6
e) 7
- In nulliparous females, the contra indicated method of contraception is:
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- a) IUCDs
b) Oral contraceptive pills
c) Intrauterine devices
d) Barrier methods
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- Q.20 A 33 years old woman presents to the medical OPD with severe acute right upper quadrant abdominal pain. She also gives history of several months of bloody diarrhoea. CT scan of the liver demonstrates lesions that are interpreted to be abscesses. Which of the following organisms is most likely cause of her illness?
- a) *Ascaris lumbricoides*
 b) *Entamoeba histolytica*
 c) *Enterobius vermicularis*
 d) *Salmonella typhi*
 e) *Shigella* species
- Q.21 The host that harbors the adult or sexually mature parasite is called the:
- a) Intermediate host.
 b) Commensal host.
 c) Symbiotic host.
 d) Definite host.
 e) Reservoir host.
- Q.22 A 20-year-old female presents with a confluent maculopapular rash that began on her face and then spread downward over her trunk. She had fever, headache and bilateral pain in the neck 3 days ago. She also c/o joint pains. She is not vaccinated. Which of the following diseases does she most likely have?
- a) Lyme disease.
 b) Roseola.
 c) Rubella.
 d) Rubella.
 e) Infectious mononucleosis.
- Q.23 A patient suffering from Rabies dies shortly after admission to the hospital. Which of the following is likely to be found on autopsy?
- a) Negri bodies.
 b) Clue cells.
 c) Koilocytic cells.
 d) Owl's-eye inclusion bodies.
 e) Giant multinucleated cells.
- Q.24 To design a vaccine against HIV infection, the researchers plan to alter some native molecule or product of the virion. If they aim to prevent the attachment of the HIV virus to helper T lymphocytes, which molecule or family of molecules might best be targeted?
- a) gp41.
 b) gp120
 c) Nucleocapsid protein.
 d) p17
 e) p24
- Q.25 Which of the following viruses has RNA for both its genome and replicative intermediate?
- a) Cytomegalovirus.
 b) Hepadnavirus.
 c) Togaviruses.
 d) Poxvirus.
 e) Retroviruses.
- Q.26 A group of intending pilgrims request for vaccination against influenza. They are inoculated intramuscularly with H3N2 influenza A preparation. The objective of this protocol is to stimulate which of the following types of immunity?
- a) Innate.
 b) Artificial passive.
 c) Artificial active.
 d) Natural active.
 e) Natural passive.
- Q.27 In a patient with an immediate (Type I) hypersensitivity response to dust mite, cross-linking of which of the following dust-mite-specific molecules will trigger inflammatory mediator release?
- a) IgG
 b) IgA.
 c) IgE
 d) Histamine.
 e) IgM
- Q.28 A 65-year old male chronic alcoholic is diagnosed on ultrasound to have enlarged fatty liver. Which of the following change in the cytoplasm of hepatocytes would be the best diagnostically?
- a) Presence of alcoholic hyaline
 b) Clear vacuole containing water
 c) Clear vacuole containing triglycerides
 d) Clear vacuole containing cholesterol ester
 e) Clear vacuole containing Phospholipids
- Q.29 High intracellular calcium concentration plays a key role in cell injury. Which of the following process plays a major role in increasing this level?
- a) Release of stored calcium from mitochondria
 b) Release of stored calcium from endoplasmic reticulum
 c) Increase in permeability of plasma membrane
 d) Toxic damage to plasma membrane
 e) Activation of Phospholipase
- Q.30 A 75-year old hypertensive and diabetic male develops sudden weakness of right sided limbs. CT scan revealed evidence of brain infarction. The gross appearance of infarcted zone would grossly appear as:
- a) Opaque solid white infarcted area
 b) Granular whitish area
 c) Soft haemorrhagic infarcted area
 d) Chalky whitish firm area
 e) Lucid viscous mass of infarcted area

(Continued)

- Q.20 A 33 years old woman presents to the medical OPD with severe acute right upper quadrant abdominal pain. She also gives history of several months of bloody diarrhoea. CT scan of the liver demonstrates lesions that are interpreted to be abscesses. Which of the following organisms is most likely cause of her illness?
- a) *Ascaris lumbricoides*
 b) *Entamoeba histolytica*
 c) *Enterobius vermicularis*
 d) *Salmonella typhi*
 e) *Shigella* species
- Q.21 The host that harbors the adult or sexually mature parasite is called the:
- a) Intermediate host.
 b) Commensal host.
 c) Symbiotic host.
 d) Definite host.
 e) Reservoir host.
- Q.22 A 20-year-old female presents with a confluent maculopapular rash that began on her face and then spread downward over her trunk. She had fever, headache and bilateral pain in the neck 3 days ago. She also c/o joint pains. She is not vaccinated. Which of the following diseases does she most likely have?
- a) Lyme disease.
 b) Roseola.
 c) Rubella.
 d) Rubella.
 e) Infectious mononucleosis.
- Q.23 A patient suffering from Rabies dies shortly after admission to the hospital. Which of the following is likely to be found on autopsy?
- a) Negri bodies.
 b) Clue cells.
 c) Koilocytic cells.
 d) Owl's-eye inclusion bodies.
 e) Giant multinucleated cells.
- Q.24 To design a vaccine against HIV infection, the researchers plan to alter some native molecule or product of the virion. If they aim to prevent the attachment of the HIV virus to helper T lymphocytes, which molecule or family of molecules might best be targeted?
- a) gp41.
 b) gp120
 c) Nucleocapsid protein.
 d) p17
 e) p24
- Q.25 Which of the following viruses has RNA for both its genome and replicative intermediate?
- a) Cytomegalovirus.
 b) Hepadnavirus.
 c) Togaviruses.
 d) Poxvirus.
 e) Retroviruses.
- Q.26 A group of intending pilgrims request for vaccination against influenza. They are inoculated intramuscularly with H3N2 influenza A preparation. The objective of this protocol is to stimulate which of the following types of immunity?
- a) Innate.
 b) Artificial passive.
 c) Artificial active.
 d) Natural active.
 e) Natural passive.
- Q.27 In a patient with an immediate (Type I) hypersensitivity response to dust mite, cross-linking of which of the following dust-mite-specific molecules will trigger inflammatory mediator release?
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- Q.1 A 45-year-old male gives H/O persistent diarrhoea. Stool examination reveals numerous granular, spherical, thin-walled cysts measuring 10-20 μm in diameter. Trichrome stains show upto four nuclei in most of the cysts. These findings are consistent with an infection by which of the following organisms.
- a) *Giardia lamblia*.
b) *Cryptosporidium parvum*.
c) *Dientamoeba fragilis*.
d) *Entamoeba histolytica*.
e) *Isospora belli*.
- Q.2 Pus from a non-healing foot ulcer of a diabetic patient yields growth of a gram negative rod that swarms on a blood agar plate and has a fishy odour. This organism most probably belongs to the genus:
- a) *Salmonella*.
b) *Serratia*.
c) *Klebsiella*.
d) *Shigella*.
e) *Proteus*.
- Q.3 An isolate from brain abscess on blood agar is beta haemolytic, Gram positive coccus with positive coagulase and catalase test. The organism is:
- a) *Streptococcus pyogenes*.
b) *Listeria monocytogenes*.
c) *Enterococcus faecalis*.
d) *Streptococcus agalactiae*.
e) *Staphylococcus aureus*.
- Q.4 The inhabitants of a small village in Baluchistan suffered an epidemic of meningitis. Many people died, most of the patients were 10-15 years of age. The micro organism that most likely caused this epidemic was:
- a) West Nile virus.
b) *Streptococcus agalactiae*.
c) *Escheria coli* K1 (capsular type 1).
d) *Haemophilus influenzae* serotype b.
e) *Neisseria meningitidis*.
- Q.5 Which of the following tests is not specific for *Treponema pallidum* infection?
- a) VDRL.
b) *Treponema pallidum* Haemagglutination test (TPHA).
c) Fluorescent treponemal antibody absorption (FTA-ABS) test.
d) *Treponema pallidum* Immobilization (TPI) test.
e) *Treponema pallidum* particle agglutination test.
- Q.6 Which of the following atypical *Mycobacteria* produces disease in humans which is indistinguishable from tuberculosis?
- a) *Mycobacterium africanum*.
b) *Mycobacterium bovis*.
c) *Mycobacterium kansasii*.
d) *Mycobacterium avium*.
e) *Mycobacterium chelonae*.
- Q.7 *Mycobacterium avium* is a major opportunistic pathogen in AIDS patients. *M. avium* from AIDS patients can be best characterized by which one of the following statements?
- a) Few isolates from AIDS patients are acid fast.
b) Most isolates from AIDS patients are sensitive to isoniazid and streptomycin.
c) *M. avium* can be isolated from the blood of many AIDS patients.
d) *M. avium* isolates from AIDS patients are multiple serovars.
e) The majority of *M. avium* from AIDS patients are non-pigmented.
- Q.8 *Mycobacterium tuberculosis* can be found in the sputum of patients with tuberculosis, after digestion of sputum. Isolation of *M. tuberculosis* is best accomplished using which of the following?
- a) Lowenstein-Jensen (LJ) medium.
b) Loeffler's medium.
c) Sheep blood agar.
d) Thayer Martin agar.
e) Thiosulfate citrate bile salts sucrose medium.



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- Q.10 A 60-year-old woman is brought to the emergency department with complaints of shortness of breath and fever. Physical examination revealed a fever of 103° F, hypotension, and a diastolic murmur. History revealed a cardiac valve replacement 5 years earlier. Three consecutive blood cultures taken during febrile periods revealed gram-positive cocci that were catalase-positive and coagulase-negative. Which of the following organisms is the most likely cause?
- a) Enterococcus faecalis
b) Kingella kingae.
c) Staphylococcus aureus.
d) Staphylococcus saprophyticus
e) Staphylococcus epidermidis.
- Q.11 A 60-year-old man develops pneumonia. The organism isolated from the sputum are gram-positive cocci that are alpha haemolytic on blood agar and sensitive to optochin. Which structure on the causative agent provides protection against phagocytosis?
- a) Capsule
b) Catalase.
c) Coagulase.
d) M protein.
e) Teichoic acid.
- Q.12 A 6-year-old girl develops glomerulonephritis a week after an attack of sore throat. The causative agent of her condition is identified by serotyping of the:
- a) Capsule.
b) M protein.
c) Outer membrane proteins
d) Pili
e) Teichoic acid
- Q.13 What is the typical means of transmission of a toxin that blocks the release of inhibitory transmitters GABA and glycine?
- a) Eating home-canned foods.
b) Feco-oral route.
c) Infant given honey during the first year of life.
d) Respiratory in a person with incomplete vaccination history.
e) Deep penetrating/puncture wound.
- Q.14 A 9 year-old girl is brought to the Paediatrics Emergency with fever of 101.5°F, sore throat, malaise and difficulty in breathing. She has an incomplete vaccination history. Physical examination reveals cervical lymphadenopathy and a whitish membrane covering most of the oropharynx. Which of the following best describes the causative agent?
- a) Gram-negative rod; toxin that increases cAMP.
b) Gram-negative rod; toxin that inhibits protein synthesis.
c) Gram-positive aerobic rod; toxin that inhibits protein synthesis.
d) Gram-positive anaerobic rod; toxin that inhibits protein synthesis.
e) Gram-positive aerobic rod; toxin that increases cAMP.
- Q.15 A 35-year-old man has renal stones. He presents to the emergency with intense renal colic. He is hydrated and given pain medication. After several hours he passes a kidney stone. Laboratory analysis of the stone reveals that it is composed of struvite (magnesium ammonium phosphate). Infection with which of the following organisms promotes the production of such stones?
- a) Pseudomonas aeruginosa.
b) Escherichia coli.
c) Proteus mirabilis.
d) Staphylococcus saprophyticus.
e) Ureaplasma urealyticum.
- Q.16 After eating a lunch of leftovers, that included rewarmed Chinese vegetable rice, a 15-year-old boy develops diarrhoea and stomach pain. Which of the following is the most likely pathogen?
- a) Rotavirus.
b) Salmonella typhi
c) Bacillus cereus.
d) Clostridium difficile.
e) Clostridium botulinum.
- Q.17 Four weeks after his return from Egypt after a job assignment, a 20-year-old male passes blood in urine. Microscopic examination of urine reveals the presence of eggs with terminal spines. His history reveals that he has been bathing in water frequently. The most likely etiologic agent of his complaint is:
- a) Entamoeba histolytica.
b) Schistosoma haematobium.
c) Schistosoma japonicum.
d) Schistosoma mansoni.
e) Fasciolopsis buski.
- Q.18 A 10-year-old girl is brought to the surgical emergency with a prolapsed rectum. Examination of the rectum reveals small worms that resemble whips attached to the mucosa. A stool sample reveals eggs that are barrel shaped, with bipolar plugs. Which of the following is the most likely cause?
- a) Ascaris lumbricoides.
b) Echinococcus granulosus.
c) Entamoeba histolytica.
d) Trichuris trichura.
e) Enterobius vermicularis.
- Q.19 A fisherman from the Makran coast presents in a Basic Health Unit, with complaints of chronic diarrhoea and fatigue. On investigations he is found to have megaloblastic anaemia. Which of the following organisms is the most likely cause of this patient's problem?
- a) Entamoeba histolytica.
b) Echinococcus granulosus
c) Diphylobothrium latum.
d) Taenia saginata
e) Taenia solium

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- 40 A 10 years old child was tested for Diphtheria status. His throat swab was taken and culture, Schick test was performed. Final results were that his throat culture was negative for corynaebacterium diphtheriae. While his schick test was strongly positive. On the basis of these results he is:
- Case of diphtheria
 - Partially treated case of diphtheria
 - Immune to diphtheria
 - Carrier of diphtheria
 - Susceptible to diphtheria
- Q.41 A surgeon while performing surgery had a prick from Hepatitis B carrier patient. Unluckily surgeon was susceptible to HBV infection. About one year after prick, he got his serum tested for all HBV markers. Result revealed that he was positive for anti-HBc and anti-HBs. What is your interpretation:
- He is susceptible
 - He is immune
 - He is carrier
 - He is partially treated cases
 - He is running active course of disease
- Q.42 An adult weighing 70 Kg and having height of 1.5 m has BMI of about 28. According to WHO standard classification of adults on the basis of BMI, he is:
- Under weight
 - Normal weight
 - Over weight
 - Obese
 - Pre-obese
- Q.43 During a routine check up of a 50 years old person weighing 75 Kgs, his serum cholesterol level was found to be 255 mg/100ml and he was also hypertensive. The risk factor for this particular condition is:
- Physical
 - Biological
 - Mechanical
 - Chemical
 - Nutritive
- Q.44 A veterinary surgeon is interested to get himself vaccinated pre-exposurely against rabies. He should be given preferably the cell cultured vaccine according to one of the following schedules:
- Day 0, 3, 7, 28
 - Day 0, 3, 7, 21
 - Day 0, 7, 28
 - Day 0, 3, 7, 21, 28
 - Day 0, 3, 7, 21, 28, 90
- Q.45 In a village two pregnant ladies in 1st trimester of pregnancy who live in the same house, using iron preparations developed mild fever and rash and recovered after few days uneventfully. One of these two ladies aborted at 18 weeks and other completed the pregnancy and gave birth to a baby with heart anomalies, congenital cataract and deafness. The likely disease, these two women suffered from was:
- Rubella
 - Rubeolla
 - Chicken pox
 - Drug reaction
 - Typhoid
- Q.46 A boy 8 years old was tested with tuberculin intradermally. After 72 hours his induration was 6 mm in diameter. How will you interpret this test:
- Negative
 - Positive
 - Strongly positive
 - Strongly negative
 - Doubtful
- Q.47 A 25 years old person reported with painful, vesicular and pustular eruptions in the distribution of sensory nerve roots on his back. He had history of suffering from chicken pox 10 year back. What probable diagnosis would be:
- Measles
 - Chicken pox
 - Scarlet fever
 - Herpes simplex
 - Shingles
- Q.48 Birth record of obstetric ward of a hospital for one month showed that 40 newborns were under weight, 85 newborns were normal weight and 25 newborns were over weight:
The chosen type of variable is:
- Ordinal
 - Nominal
 - Discrete
 - Continuous
 - Dichotomous
- Q.49 Blood pressure of 150 doctors was recorded. The mean BP was found to be 127 mmHg (systolic). The standard deviation was calculated to be 6 mmHg. If blood pressure is normally distributed, then how many doctors will have systolic blood pressure above 133 mmHg:
- 24
 - 12
 - 48
 - 96
 - 144

- Q.42 "Asbestos" is one of the well established carcinogenic agent for lung cancer. Several factors influence its carcinogenic potential. Which of the following is important?
- Type of Asbestos fiber
 - Concomitant tobacco smoking ✓
 - Duration of exposure
 - Severity of exposure
 - Indirect exposure
- Q.43 DNA viruses are capable of causing cancer in humans. One of the prerequisites to bring about a neoplastic change is:
- Slow replication of virus
 - Non-replication of virus
 - Integration of viral genome into host cell genome ✓
 - Expression of viral genes in host cell
 - Presence of virus in latent form
- Q.44 Before starting the treatment of a cancer patient, the oncologist wanted to assess the prognosis of his tumour. Which of the following parameters at this time would be the most important in deciding the survival of this patient?
- Grade of the tumour ✓
 - Stage of the tumour
 - Histological type of tumour
 - Proliferation potential of tumour
 - Metastatic potential of tumour
- Q.45 Human infection with beef tapeworm, *Taenia saginata*, usually is less serious than infection with the pork tapeworm, *Taenia solium*, because of which of the following:
- Acute intestinal obstruction is less common in *Taenia saginata* infection. ✗
 - Taenia saginata* eggs cause less irritation of the mucosa of the digestive tract. ✓
 - Larval invasion does not occur in beef tapeworm infection.
 - The adult beef tapeworms are smaller. ✗
 - Toxic products are not produced by adult beef tapeworm.
- Q.46 *Trypanosoma cruzi* initially penetrates through the mucous membranes on the skin and then multiplies in a lesion called chagoma. In the chronic stage of the disease, where are the main lesions often observed?
- Heart and Digestive tract.
 - Digestive tract and Respiratory tract.
 - Heart and liver. ✓
 - Liver and spleen.
 - Spleen and lymph nodes.
- Q.47 Which of the following parasite does not have a cyst state?
- Balantidium coli*. ✗ has cyst ✓
 - Dientamoeba fragilis*.
 - Cryptosporidium*.
 - Giardia lamblia*. ✗ has cyst. ✓
 - Entamoeba coli*.
- Q.48 A woman, recently returned to USA from Pakistan. She complains of having paroxysmal attacks of chills, fever, and sweating. These attacks recur every 36 to 48 hours. Examination of blood smear reveals ring like and crescent-like forms within red blood cells. Which of the following is the most likely infecting organism?
- Plasmodium vivax*.
 - Plasmodium falciparum*. ✓
 - Schistosoma mansoni*.
 - Trypanosoma gambiense*.
 - Wuchereria bancrofti*.
- Q.49 The presence of Negri inclusion bodies in host cells is characteristic of which of the following?
- Aseptic meningitis.
 - Congenital rubella.
 - Infectious mononucleosis.
 - Mumps.
 - Rabies. ✓
- Q.50 Which of the following serum component is an indicator of past infection, and subsequent immunity to Hepatitis B virus infection?
- Anti-Hbs. ✓
 - HBeAg.
 - HBeAg.
 - HBeAg.
 - Anti-HBc.
- Q.51 Which of the following statements is true for hepatitis C virus?
- Chronic infections are significantly less frequent than with hepatitis B virus.
 - Virus is easy to grow in conventional cell culture.
 - Virus is easy to spread by faecal-oral route. ✗
 - Hepatocellular carcinoma is not associated with chronic HCV infections.
 - It is an RNA virus. ✓
- Q.52 Which of the following statements is true about RETROVIRUSES?
- The flow of genetic information is RNA → DNA → RNA. ✓
 - Virions contain 2 single strands of RNA. One strand is of the positive (+) sense, the other of the negative (-) sense.
 - All retroviruses transform cells by virtue of containing an oncogene within the viral genome.
 - The virions contain an RNA directed RNA polymerase.
 - HIV is an oncogenic virus frequently leading to transformation and tumors

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- Plasmodium vivax*.
 - Plasmodium falciparum*. ✓
 - Schistosoma mansoni*.
 - Trypanosoma gambiense*.
 - Wuchereria bancrofti*.
- Q.49 The presence of Negri inclusion bodies in host cells is characteristic of which of the following?
- Aseptic meningitis.
 - Congenital rubella.
 - Infectious mononucleosis.
 - Mumps.
 - Rabies. ✓
- Q.50 Which of the following serum component is an indicator of past infection, and subsequent immunity to Hepatitis B virus infection?
- Anti-Hbs. ✓
 - HBeAg.
 - HBeAg.
 - HBeAg.
 - Anti-HBc.
- Q.51 Which of the following statements is true for hepatitis C virus?
- Chronic infections are significantly less frequent than with hepatitis B virus.
 - Virus is easy to grow in conventional cell culture.
 - Virus is easy to spread by faecal-oral route. ✗
 - Hepatocellular carcinoma is not associated with chronic HCV infections.
 - It is an RNA virus. ✓
- Q.52 Which of the following statements is true about RETROVIRUSES?
- The flow of genetic information is RNA → DNA → RNA. ✓
 - Virions contain 2 single strands of RNA. One strand is of the positive (+) sense, the other of the negative (-) sense.
 - All retroviruses transform cells by virtue of containing an oncogene within the viral genome.
 - The virions contain an RNA directed RNA polymerase.
 - HIV is an oncogenic virus frequently leading to transformation and tumors

- Q.50 A researcher is interested to find out the frequency of HIV positivity among I/V drug abusers in city 'A'. Which type of sampling technique should be adopted:
 a) Simple random sampling
 b) Cluster sampling
 c) Systematic random sampling
 d) Quota sampling
 e) Snow-ball sampling
- Q.51 Two groups of patients A & B, 100 each undergoing surgery were given antibiotics x & y respectively to prevent post-operative infection. After follow up, the number who developed infection in group 'A' was 20 while 6 in group 'B'. Which test of significance would you suggest for such type of data?
 a) Chi-square test
 b) Correlation analysis
 c) F-test
 d) Regression analysis
 e) Student's t test
- Q.52 An over-weight lady was advised by a doctor to reduce her weight. Doctor told her that she was attractive but would be more smart and attractive if she reduced her weight about 20 lbs. Which principle of health education was used by the doctor:
 a) Interest
 b) Participation
 c) Motivation
 d) Comprehension
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- Q.53 A country is having crude birth rate of 23/100 and crude death rate of 6/1000 mid year population. Which stage of demographic transition it is running in:
 a) Late expanding
 b) High stationary
 c) Early expanding
 d) Low stationary
 e) Declining
- Q.54 In a country 'X' the total births are equal to total deaths per annum. The vital index of that country will be:
 a) 1.0
 b) 0.5
 c) 1.5
 d) 2.0
 e) 2.5
- Q.55 If annual population growth rate of Pakistan is taken as 1.5%, then what will be the population doubling time:
 a) 47 years approximately
 b) 29 years approximately
 c) 38 years approximately
 d) 56 years approximately
 e) 65 years approximately
- Q.56 A child two year old reported to you with bleeding from injury while playing with his toys. On enquiry, his parents told that he was on prolonged antibiotic therapy due to repeated respiratory infections. Which micro nutrient deficiency is causing the problem:
 a) Calcium
 b) Iron
 c) Vitamin B₁₂
 d) Vitamin K
 e) Vitamin C
- Q.57 An educated lady who was nursing her newborn of four months age reports to you and enquires about the additional caloric requirement/day. How much increase will you recommend:
 a) 400 Kcal
 b) 450 Kcal
 c) 500 Kcal
 d) 600 Kcal
 e) 550 Kcal
- Q.58 A child of four years age born normal, reports to you from Gilgit area. On examination, his development is noted to be slow; hearing and speech defects, unilateral squint was present. Muscular spasticity was also demonstrated. What is likely disorder:
 a) Any congenital defect
 b) Lead poisoning disorder
 c) Thiamine deficiency disorder
 d) Iodine deficiency disorder
 e) Zinc deficiency disorder
- Q.59 Linoleic acid an essential fatty acid is abundantly found in vegetable oils. Which one of the following vegetable oils is the richest source of linoleic acid:
 a) Safflower oil
 b) Corn oil
 c) Sunflower oil
 d) Soyabean oil
 e) Sesame oil
- Q.60 A child 02 years of age coming from a poor large family household presents with muscle wasting loss of sub cutaneous fat with signs of oedema and weight below 60% of WHO standard. What is likely diagnosis:
 a) Thiamine deficiency
 b) Marasmic kwashiorkor
 c) Marasmus
 d) Kwashiorkor
 e) Pyridoxine deficiency

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- Q.31 An eighty-year old male presents with features of gradually developing left heart failure. On investigation marked left ventricular hypertrophy and dilatation was observed. Further investigation revealed evidence of aortic valve stenosis. Which of the following could have caused this valvular pathology?
- Metastatic calcification
 - Dystrophic calcification
 - Rheumatic heart disease
 - Congenital valve stenosis
 - Hypertensive heart disease
- Q.32 In a fair skin individual who was highly sensitive to ultraviolet rays, prolonged sun exposure resulted in sun burn with redness and swelling of face. Which of the vascular phenomenon of acute inflammation operates?
- Immediate transient phase
 - Delayed prolonged phase
 - Immediate prolonged phase
 - Immediate sustained response
 - Delayed sustained response
- Q.33 A biopsy taken from the site of acute inflammation on the 3rd day would show the following cell predominantly.
- Neutrophils
 - Lymphocytes
 - Monocytes
 - Plasma cells
 - Eosinophils
- Q.34 The role of Cox-2 inhibitors in controlling inflammatory response is due to:
- Suppression of Arachidonic acid release from cell membrane
 - Suppression of Prostaglandins synthesis
 - Suppression of Leukotrienes synthesis
 - Suppression of Phospholipase A2 enzyme
 - Suppression of chemotaxis
- Q.35 Characteristic feature of chronic inflammatory response differentiating it from acute inflammatory reaction is:
- Absence of neutrophils
 - Presence of lymphocytes and plasma cells
 - Fibroblastic reaction
 - Tissue necrosis
 - Vascular phenomenon
- Q.36 One of the outcomes of acute inflammation is "Resolution". Which of the following is the most important initial requirement for resolution to proceed?
- Less tissue destruction
 - Short lived injury
 - Influx of macrophages
 - Regeneration of parenchymal cells
 - Regeneration of stromal cells
- Q.37 Role of Nitric Oxide (NO) as a chemical mediator of inflammation is due to its diverse functions. Which of the following functions helps as a defense against bacterial infection?
- Vasodilatation
 - Suppression of Chemotaxis
 - Reactive nitrogen radicals production
 - Smooth muscle relaxation
 - Reduced platelet aggregation
- Q.38 A patient of Scurvy underwent laparotomy. Incisional scar after 3 months was still very weak. Which of the following features of healing phenomenon was deficient in this patient which effected the wound strength?
- Reduced synthesis of collagen fibers.
 - Reduced synthesis of ground matrix
 - Reduced granulation tissue formation
 - Reduced cross linking of collagen fibers
 - Reduced vascular wall strength
- Q.39 Which of the following viruses is noted for genetic reassortment, which leads to major pandemics about once every 10 to 11 years?
- Adenovirus.
 - Herpes virus.
 - Human Immunodeficiency virus (HIV).
 - Influenza virus.
 - Polio virus.
- Q.40 A bone-marrow transplant recipient becomes febrile and hypoxic. Chest X-ray demonstrates diffuse interstitial pneumonia. What is the most likely agent?
- Herpes simplex virus.
 - Paramyxovirus.
 - Cytomegalovirus.
 - Varicella-zoster virus.
 - Human papilloma virus.
- Q.41 A 35-year-old woman has a severe attack of diarrhoea after a vacation in Murree. She has had multiple episodes of watery, diarrhoea but no vomiting or fever. There is no blood in stools. A blood culture reveals only lactose-fermenting colonies on EMB agar:
- Helicobacter pylori.
 - Shigella sonnei.
 - Escherichia coli.
 - Pseudomonas aeruginosa.
 - Vibrio cholerae.
- Q.42 A 6-year-old patient of cystic fibrosis has repeated episodes of pneumonia. He now has a fever, and is coughing up thick, greenish sputum. A Gram stain of the sputum reveals gram-negative rods. Which of the following is the most likely organism to cause this infection?
- Legionelle pneumophila.
 - Pseudomonas aeruginosa.
 - Haemophilus influenzae
 - Bordetella pertussis.
 - Streptococcus pneumoniae.

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Total Marks: 65
Time: 1 hour 05 Minutes



Roll No.

MCQ Paper ID M 5 G 5 1 0 3 6 9 8 7 2

Instructions

3 YEAR PATHO ORIGINAL PROFF MCQ

- i. Read the instructions on the MCQ Paper.
 - ii. Attempt all questions.
 - iii. Question Paper to be returned along with MCQ Response Form.
 - iv. Candidates are strictly prohibited from writing on the question paper.
- Signature in the specified columns only.

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- Q.1 A 45-year-old male gives H/O persistent diarrhoea. Stool examination reveals numerous granular, spherical, thin-walled cysts measuring 10-20 um in diameter. Trichrome stains show upto four nuclei in most of the cysts. These findings are consistent with an infection by which of the following organisms.
- a) Giardia lamblia. ✓
b) Cryptosporidium parvum.
c) Dientamoeba fragilis.
d) Entamoeba histolytica.
e) Isospora belli.
- Q.2 Pus from a non-healing foot ulcer of a diabetic patient yields growth of a gram negative rod that swarms on a blood agar plate and has a fishy odour. This organism most probably belongs to the genus:
- a) Salmonella.
b) Serratia.
c) Klebsiella.
d) Shigella.
e) Proteus. ✓
- Q.3 An isolate from brain abscess on blood agar is beta haemolytic, Gram positive coccus with positive coagulase and catalase test. The organism is:
- a) Streptococcus pyogenes.
b) Listeria monocytogenes.
c) Enterococcus faecalis.
d) Streptococcus agalactiae.
e) Staphylococcus aureus. ✓
- Q.4 The inhabitants of a small village in Baluchistan suffered an epidemic of meningitis. Many people died, most of the patients were 10-15 years of age. The micro organism that most likely caused this epidemic was:
- a) West Nile virus.
b) Streptococcus agalactiae.
c) Escheria coli K1 (capsular type 1).
d) Haemophilus influenzae serotype b.
e) Neisseria meningitidis. ✓
- Q.5 Which of the following tests is not specific for Treponema pallidum infection?
- a) VDRL.
b) Treponema pallidum Haemagglutination test (TPHA).
c) Fluorescent trponemal antibody absorption (FTA-ABS) test.
d) Treponema pallidum Immobilization (TPI) test.
e) Treponema pallidum particle agglutination test.
- Q.6 Which of the following atypical Mycobacteria produces disease in humans which is indistinguishable from tuberculosis?
- a) Mycobacterium africanum.
b) Mycobacterium bovis.
c) Mycobacterium kansasii.
d) Mycobacterium avium. ✓
e) Mycobacterium chelonii.
- Q.7 Mycobacterium avium is a major opportunistic pathogen in AIDS patients. M.avium from AIDS patients can be best characterized by which one of the following statements?
- a) Few isolates from AIDS patients are acid fast.
b) Most isolates from AIDS patients are sensitive to isoniazid and streptomycin.
c) M.avium can be isolated from the blood of many AIDS patients.
d) M.avium isolates from AIDS patients are multiple serovars.
e) The majority of M.avium from AIDS patients are non-pigmented.
- Q.8 Mycobacterium tuberculosis can be found in the sputum of patients with tuberculosis, after digestion of sputum. Isolation of M. tuberculosis is best accomplished using which of the following?
- a) Lowenstein-Jensen (LJ) medium. ✓
b) Loeffler's medium.
c) Shephard's medium.
d) Thayer Martin agar.
e) Thiosulfate citrate bile salts sucrose medium.

M.B.B.S Study Stuff All Prof
KHIZZER KHAN

- Q.30 A patient was brought to the hospital with a history of acute chest pain. His ECG changes were suggestive of myocardial infarction and cardiac enzymes were raised. He was promptly started on t. Plasminogen-activator infusion. This will help the patient by causing:
- Thrombus organization
 - Thrombus propagation
 - Thrombus lysis ✓
 - Thrombus recanalisation
 - Thrombo embolisation
- Q.31 An area of fresh infarct was located in the spleen visible grossly as a haemorrhagic zone with irregular margins. On microscopic examination the margins of infarct revealed:
- Coagulative necrosis
 - Liquefactive necrosis
 - Haemorrhage ✓
 - Haemosiderin
 - Acute inflammation
- Q.32 A patient of septic shock presents with warm, flushed skin, anuria and fever. Which of the following mechanism best explains his presentation?
- Peripheral vasoconstriction
 - Peripheral vasodilatation ✓
 - Splanchnic vasoconstriction
 - Splanchnic vaso dilatation
 - Renal vasodilatation
- Q.33 A 5-year old child presents with generalized edema of few months duration. His urine analysis revealed heavy amounts of albumin. Which of the following factors can explain his state of edema?
- Increased vascular permeability
 - Decreased colloidal osmotic pressure ✓
 - Increased intravascular hydrostatic pressure
 - Leaky glomerular capillary wall
 - Diffuse liver damage
- Q.34 The parents of a child consulted a Genetic Councillor. The child was suffering from an autosomal dominant disorder but none of the parents had that disease and neither had any such family history. What could be the underlying mechanism of this disease manifestation in the child?
- Somatic mutation
 - New mutation in somatic cells of child
 - Mutation in ovum or sperm forming the child ✓
 - Sporadic mutation in the germ cells of parents
 - Sex chromosome mutation in the child
- Q.35 In the above mentioned child, chances of having this autosomal dominant disease in brothers and sisters is:
- One chance in two ✓
 - One chance in four
 - No chance
 - Fifty percent
 - Hundred percent
- Q.36 A 70-year old diabetic female slipped in the washroom and got fracture of neck of her right femur. Internal fixation was carried out and she was bed ridden for few months. She noticed gradual thinning of her right thigh and leg and a reduced muscle mass. Which of the following can explain this change?
- Disuse atrophy ✓
 - Ischemic atrophy
 - Denervation atrophy
 - Ischemic and disuse atrophy ✓
 - Ischemic and denervation atrophy
- Q.37 Bronchial mucosa in a 40 year-old chronic smoker shows extensive squamous metaplasia. This change results from:
- Columnar lining cells change into squamous cells ✓
 - Stem cell differentiate into squamous cells
 - De-differentiation of columnar cells
 - Re-programming of stem cells
 - Differentiation of mesenchymial cells
- Q.38 "Grading" of tumours signifies:
- Resemblance to site of origin ✓
 - Aggressiveness of tumour ✓
 - Spread of tumour in the body
 - Growth potential
 - Degree of differentiation
- Q.39 For a malignant tumour to establish certain phenotypic characteristics are a pre-requisite. Which one in your opinion is of paramount importance?
- Autonomous growth potential ✓
 - Sustained angiogenesis
 - Insensitivity to growth inhibitory signals
 - Limitless replication
 - Evasion of apoptosis
- Q.40 Human papilloma virus (HPV) plays a strong etiological role in cancer cervix production. One of the ways it acts is by making functionless the tumour suppressor gene p53. This is achieved by:
- Promoting degradation of p53 gene
 - Point mutation of p53 gene
 - Missense mutation of p53
 - E6 protein mediated degradation ✓
 - MDM mediated degradation of p53
- Q.41 During local invasion of malignant tumours some of the tissues resist invasion by neoplastic cells. Which of the following tissues is most easily invaded locally?
- Cartilage
 - Veins
 - Adipose
 - Ligaments
 - Nerves

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- A paediatrician wants to start anti-tubercular treatment in an established case of pulmonary T.B who is a boy of three years. Which one of the following drugs should not be included:
- a) Ethambutol
b) Streptomycin
c) Rifampicin
d) INH
e) Pyrizinamide
- Q.21 Use of oral contraceptive pills by a smoker woman above 35 years of age is most likely to be associated with increased risk of:
- a) Cervical cancer
b) Breast carcinoma
c) Chronic bronchitis
d) Peripheral neuropathy
e) Coronary heart disease
- Q.22 A baby died after 15th day of his birth due to congenital anomalies. This death will be categorised as:
- a) Perinatal
b) Early neonatal
c) Neonatal
d) Late foetal
e) Post neonatal
- Q.23 An educated mother reported to a well baby clinic with her 7th month old child. She was worried about growth of her precious child. The best single measure for assessing the physical growth in this age is:
- a) Height for age
b) Weight for age
c) Chest/head ratio
d) Skin fold thickness
e) Mid upper arm circumference
- Q.24 A child is said to be doing child labour when his age is less than:
- a) 12 years
b) 15 years
c) 17 years
d) 18 years
e) 10 years
- Q.25 A mother brings her 10 years old son to a psychiatrist. She complains that the boy starts feeling abdominal pain soon he reaches school and becomes alright when back. His academic record is satisfactory. This presentation is suggestive of:
- a) Mental retardation
b) Habit disorder
c) Psychomotor disorder
d) Educational difficulties
e) Juvenile delinquency
- Q.26 A 35 years old person presented with loss of weight and appetite. He also admitted his dependence on a substance. On examination, he had palmar erythema and ataxic gait. The likely abused substance is:
- a) Cocaine
b) Barbiturates
c) Heroin
d) Tobacco
e) Alcohol
- Q.27 The most important factor which makes smoking cessation programme successful is:
- a) A well planned programme
b) The drive of smoker to stop smoking
c) Availability of replacement therapy
d) Advice by a competent doctor
e) Follow up programme
- Q.28 The measures taken against a health problem to prevent its occurrence in a population where it is not seen are known as:
- a) Primary prevention
b) Secondary prevention
c) Tertiary prevention
d) Special prevention
e) Primordial prevention
- Q.29 Local Govt. is interested to provide safe water to a village with 250 households. As there are no electricity arrangements in the village and funds are also scarce, therefore, it is decided to provide each household with one Pakistan made hand pump. Which one of the principles of primary health care has been acted upon:
- a) Multi-sectoral approach
b) Appropriate technology
c) Community participation
d) Equitable distribution
e) Self reliance
- 30 A young student aged 14 was a good athlete. He lost his leg (left) in a road side accident. He recovered but was very upset despite having artificial leg as he was unable to participate in his school annual athletics. His failure to participate in athletics will be named as:
- a) Disability
b) Accident
c) Impairment
d) Handicap
e) Disappointment

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 - Early neonatal
 - Neonatal
 - Late foetal
 - Post neonatal
- Q.23 An educated mother reported to a well baby clinic with her 7th month old child. She was worried about growth of her precious child. The best single measure for assessing the physical growth in this age is:
- Height for age
 - Weight for age
 - Chest/head ratio
 - Skin fold thickness
 - Mid upper arm circumference
- Q.24 A child is said to be doing child labour when his age is less than:
- 12 years
 - 15 years
 - 17 years
 - 18 years
 - 10 years
- Q.25 A mother brings her 10 years old son to a psychiatrist. She complains that the boy starts feeling abdominal pain soon he reaches school and becomes alright when back. His academic record is satisfactory. This presentation is suggestive of:
- Mental retardation
 - Habit disorder
 - Psychomotor disorder
 - Educational difficulties
 - Juvenile delinquency
- Q.26 A 35 years old person presented with loss of weight and appetite. He also admitted his dependence on a substance. On examination, he had palmar erythema and ataxic gait. The likely abused substance is:
- Cocaine
 - Barbiturates
 - Heroin
 - Tobacco
 - Alcohol
- Q.27 The most important factor which makes smoking cessation programme successful is:
- A well planned programme
 - The drive of smoker to stop smoking
 - Availability of replacement therapy
 - Advice by a competent doctor
 - Follow up programme
- Q.28 The measures taken against a health problem to prevent its occurrence in a population where it is not seen are known as:
- Primary prevention
 - Secondary prevention
 - Tertiary prevention
 - Special prevention
 - Primordial prevention
- Q.29 Local Govt. is interested to provide safe water to a village with 250 households. As there are no electricity arrangements in the village and funds are also scarce, therefore, it is decided to provide each household with one Pakistan made hand pump. Which one of the principles of primary health care has been acted upon:
- Multi-sectoral approach
 - Appropriate technology
 - Community participation
 - Equitable distribution
 - Self reliance
- 30 A young student aged 14 was a good athlete. He lost his leg (left) in a road side accident. He recovered but was very upset despite having artificial leg as he was unable to participate in his school annual athletics. His failure to participate in athletics will be named as:
- Disability
 - Accident
 - Impairment
 - Handicap
 - Disappointment

- Q.19 The boundary between reversible and irreversible cell injury is blurred. Which of the following morphological features would be strongly suggestive of irreversible injury?
- a) Marked swelling of mitochondria with amorphous densities ✓
 b) Cytoplasmic blebs on plasma membrane
 c) Loss of microvilli
 d) Disaggregation of polysomes
 e) Dilatation of endoplasmic reticulum
- Q.20 In an eighty year old man dying in a road side accident autopsy was carried out. An incidental finding in the biopsy from liver was presence of golden brown pigment in the cytoplasm of hepatocytes. What could be the possible nature of this pigment?
- a) Bile pigment
 b) Lipofuscin ✓
 c) Haemosiderin
 d) Melanin
 e) Iron
- Q.21 A 40 year old male from northern hilly areas of Pakistan presented with cervical and hilar lymphadenopathy. His lymph node biopsy shows non-caseating granulomas. He then develops features of renal damage with x-ray showing calcification of renal parenchyma. What can explain this phenomenon?
- a) Metastatic calcification ✓
 b) Renal stones
 c) Dystrophic calcification
 d) Metastatic bone disease
 e) Hyperparathyroidism
- Q.22 A patient who had a long standing history of the joint disorder "Gout", got an acute exacerbation with extremely painful, tender, swollen ankle joint. He was prescribed Aspirin. His symptoms and signs subsided. Which of the following mechanism would explain best the beneficial role of his medication?
- a) Suppression of prostaglandin synthesis ✓
 b) Vascular dilatation
 c) Suppression of platelet aggregation
 d) Suppression of chemotaxis
 e) Promotion of chemotaxis
- Q.23 Bradykinin performs important role in vascular phenomenon of acute inflammatory reaction. Locally its action is very short lived however. Why?
- a) It undergoes spontaneous decay
 b) Degraded enzymatically ✓
 c) Synthesis is limited
 d) Dissolves out in exudate
 e) Cleaves into inactive components
- Q.24 At the site of acute inflammatory reaction leukocytes come out of the blood vessels to mediate the process. Their beneficial functions at the local site are mainly achieved due to:
- a) Activation ✓
 b) Chemotaxis
 c) Degradation
 d) Maturation
 e) Adhesion
- Q.25 At the time of surgery non-absorbable suture material was accidentally left at the local incisional site. After few weeks a firm nodule developed here. Biopsy was carried out. On microscopic examination presence of which of the following cells would give a clue to the nature of this lesion?
- a) Neutrophils
 b) Macrophages
 c) Epitheloid cell
 d) Eosinophils
 e) Foreign body giant cells
- Q.26 In chronic inflammatory reactions, the inflammation, necrosis and repair proceed simultaneously. Which of the following types of necrosis can help you diagnose the etiology of a pathological lesion with confidence?
- a) Caseation necrosis ✓
 b) Liquefactive necrosis
 c) Fat necrosis
 d) Gangrenous necrosis
 e) Coagulative necrosis
- Q.27 A young man gets an attack of lobar pneumonia due to pneumococcal infection. He is found to have congenital complement deficiency and is unable to contain the infection. Which of the following disturbed defence mechanism best explains his problem?
- a) Defective microbial killing
 b) Defective opsonisation ✓
 c) Defective neutrophil activation
 d) Defective adhesion
 e) Defective vasodilatation
- Q.28 An emaciated child was brought to the hospital after road side accident with a gaping wound on the leg. Child got prompt emergency care. The wound however did not heal within the expected time period. In your opinion which of the following factors played major role in delayed healing?
- a) Protein calorie malnutrition.
 b) Infection ✓ Diabetic
 c) Foreign body interposition
 d) Excessive mobility
 e) Ischemia
- Q.29 A fundamental step in effective healing by secondary intention is:
- a) Skin grafting
 b) Application of sutures
 c) Granulation tissue formation ✓
 d) Apposition of wound edges
 e) Fibroblastic proliferation

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- Q.9 The formation of granulomas is seen in major systemic fungal infections. Which of the following groups of fungi is most likely to cause granulomas?
 a) Aspergillus, Coccidioides, Cryptococcus.
 b) Epidermophyton, Blastomyces, Trichophyton.
 c) Cladosporium, aspergillus, Microsporium.
 d) Coccidioides, Blastomyces, Histoplasma. ✓
 e) Mucor, Candida, Malassezia.
- Q.10 Histoplasma capsulatum, a dimorphic fungus, is found in soil contaminated with bird droppings. Which of the following statements best describes the presence of the organism in tissue biopsies?
 a) Arthrospores.
 b) Oval budding yeasts inside macrophages. ✓
 c) Single-cell yeasts with pseudohyphae.
 d) Spherules containing endospores.
 e) Yeasts with broad based bud.
- Q.11 Septate hyphae are seen in lung biopsy tissue stained with H & E stain. Most likely fungal organism is which one of the following:
 a) Rhizopus.
 b) Aspergillus. ✓
 c) Mucor.
 d) Histoplasma capsulatum.
 e) Blastomyces dermatitidis.
- Q.12 In fungi, conidia may be described by which of the following?
 a) Asexual spores. ✓
 b) Sexual spores.
 c) Bits of hyphae.
 d) Yeasts like stage of dimorphic fungi.
 e) Aerial mycelium.
- Q.13 A 26-years old obstetric patient becomes ill during the first trimester of pregnancy with fever and lymphadenopathy. She is found to have titre of anti-Toxoplasma gondii antibodies. She delivers a full-term baby with no apparent signs of in utero infection. The best test to diagnose acute infection in the neonate would be parasite-specific ELISA for which isotype of immunoglobulin?
 a) IgA
 b) IgD
 c) IgE
 d) IgG ✓
 e) IgM
- Q.14 When a B-cell undergoes immunoglobulin class switching,
 a) The variable region of the light chain changes, but its constant region remains the same.
 b) The variable region of the light chain remains the same, but its constant region changes.
 c) The variable region of the heavy chain changes but its constant region remains the same.
 d) The variable region of the heavy chain remains the same but its constant region changes. ✓
 e) Both the variable and constant regions change.
- Q.15 A 20-year-old medical student presents for evaluation of a bee sting allergy. He describes an episode in which he was stung on the forearm by a bee and, within 5 minutes, experienced pruritus, urticaria, and mild wheezing. The effector cell in this type of hypersensitivity is a(n)
 a) eosinophil
 b) megakaryocyte
 c) neutrophil
 d) mast cell ✓
 e) TH1 CD4+ lymphocyte
- Q.16 A 32-year-old technician working in the Immunology laboratory had a history of acute eczematous dermatitis on her hands and wrist in the distribution of the latex gloves she wore. The skin of her hands was dry, crusted, and thickened. The eczematous reaction cleared after a 2-week vacation. After 72 hours back on the job, the eczematous dermatitis returned and continued to grow worse. Which of the following characterizes the technician's reaction to the latex gloves?
 a) Irritant dermatitis
 b) Type I reaction
 c) Type II reaction
 d) Type III reaction
 e) Type IV reaction ✓
- Q.17 An IgG1 molecule is composed of which of the following?
 a) One alpha, one gamma2, and two kappa chains
 b) One gamma1 chain and two kappa chains
 c) Two gamma1 chains and one kappa and one lambda chain
 d) Two gamma2 chains and two kappa chains
 e) Two gamma1 chains and two kappa chains
- Q.18 Cellular swelling (hydropic change) is a sign of reversible cell injury. Which of the following underlying pathogenetic mechanism is responsible the most for this feature?
 a) Decreased protein synthesis
 b) Decreased ATP production. ✓
 c) DNA damage
 d) Cytoskeletal damage

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**MBBS SECOND PROFESSIONAL
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(Multiple Choice Questions)**

UMAIR KHAN

Signature of Candidate

Roll No.

Total Marks: 65
Time: 1 hour 05 Minutes

MCQ Paper ID

M	S	G	A	0	9	5	5	8	9	2	2
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 c) Cytoplasmic membrane
 d) Outer membrane.
 e) Endospore
- Q.2** The ability of a cell to bind DNA to its surface and import it, is required for which of the genetic process?
 a) Conjugation.
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- Q.3** Which of the following agents, if introduced into a growing culture of bacteria, would halt the growth but, if removed, would allow the growth to resume?
 a) Antiseptic.
 b) Bactericidal agent.
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 d) Disinfectant.
 e) Sterilizing agent.
- Q.4** Of the following virulence factors, which one is the most likely to cause fever and hypotension associated with bacterial infections:
 a) Pilus.
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- Q.5** A 3-year-old boy develops several honey-crusted lesions behind his ears and on his face. The simplest test for a microbiologist to determine the genus of bacteria responsible for this child's illness is the:
 a) Coagulase test.
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- Q.6** A 30-year-old man develops a pelvic abscess following a ruptured appendix. What is/are the most likely causative agent(s)?
 a) Candida albicans
 b) Bacteroides species and microaerophilic streptococci.
 c) Enterobacter aerogenes.
 d) Haemophilus influenzae group B
 e) Streptococcus viridans
- Q.7** A 30-year-old female develops painless chancres on her vaginal mucosa. Dark field microscopy of material taken from the chancre reveals spiral-shaped organisms. Which of the following tests would be used to confirm the diagnosis?
 a) Gram stain
 b) Fluorescent antibody test.
 c) PCR
 d) Rapid plasma regain (RPR) assay
 e) Western blot
- Q.8** A 19-year-old medical student was brought to the emergency department by his room mate with a petechial rash, headache, nuchal rigidity, and vomiting. Which of the following describes the most likely causative agent?
 a) Gram-negative cocci, capsulated, ferments maltose.
 b) Gram-negative cocci, ferments glucose only
 c) Gram-negative coccobacilli, capsular serotype b
 d) Gram-positive cocci, alpha haemolytic, optochin sensitive
 e) Gram-positive rods, growth at 4°C
- Q.9** Which of the following organisms is the most common cause of community-acquired pneumonia?
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 b) Haemophilus influenzae.
 c) Mycoplasma pneumoniae.
 d) Staphylococcus aureus.
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(Continued)



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- Q.61 A man, who had been working in a ship breaking industry for the last ten years, presents with irritant cough, dyspnoea on exertion and chest pain. His total lung capacity is impaired and chest x-rays shows snow-storm appearance in the lung fields. What is your most probable diagnosis?
- Silicosis
 - Asbestosis
 - Anthracois
 - Bagassosis
 - Byssinosis
- Q.62 A group of workers underwent complete blood examination on annual medical check up. 70% of them showed stippling of RBCs. Which chemical is causing the problem?
- Lead
 - Phosphorous
 - Sulphur
 - Mercury
 - Cadmium
- Q.63 Which one of the following is not true regarding occupational cancers?
- Appear after prolonged exposure
 - Cancer does not develop after cessation of exposure
 - Period between exposure and development of cancer may be 10 to 25 years
 - Average age incidence is earlier than that of cancers in general population
 - Localisation of the tumours is remarkably constant in any one occupation
- Q.64 In a glass factory some workers have developed silicosis, you being medical officer employed. What measures would you recommend to prevent this problem?
- Pre-placement examination
 - Personal hygiene
 - Periodic x-rays (chest)
 - Rigorous dust control
 - Substitution
- Q.65 The results of a 100ml sample of drinking water as follows:
- | | |
|--------------------|----------------|
| Coliform organisms | negative/100ml |
| E. coli organism | negative/100ml |
| Fluoride | 5 ppm |
| Cysts & ova | ova +ve |
- Which disease is most likely to develop in the users of that area?
- Fluorosis
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Z.Q

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