

MCI 2005
SOLVED
QUESTIONS AND ANSWERS

ANATOMY

Q 1. The carpal tunnel contains all of the following important structures except:

- A. Median nerve.
- B. Flexor pollicis longus.
- C. Flexor carpi radialis.
- D. Flexor digitorum superficialis.

Ans. C

Q 2. The femoral ring is bounded by the following structures except:

- A. Femoral vein.
- B. Inguinal ligament.
- C. Femoral artery.
- D. Lacunar ligament.

Ans. C

Q 3. All of the following statements regarding vas deferens are true except:

- A. The terminal part is dilated to form ampulla.
- B. It crosses ureter in the region of ischial spine.
- C. It passes lateral to inferior epigastric artery at deep inguinal ring.
- D. It is separated from the base of bladder by the peritoneum.

Ans. D

Q 4. The following statements concerning chorda tympani nerve are true except that it:

- A. Carries secretomotor fibers to submandibular gland.
- B. Joins lingual nerve in infratemporal fossa
- C. Is a branch of facial nerve.
- D. Contains postganglionic parasympathetic fibers.

Ans. D

Q 5. The type of joint between the sacrum and coccyx is a:

- A. Symphysis
- B. Syostosis
- C. Synchondrosis
- D. Syndesmosis

Ans. A

Q 6. The prostatic urethra is characterized by all of the following features, except that it:

- A. Is the widest and most dilatable part.
- B. Presents a concavity posteriorly.
- C. Lies closer to anterior surface of prostate.
- D. Receives prostatic ductules along its posterior wall.

Ans. B

Q 7. The following group of lymph nodes receives lymphatics from the uterus except;

- A. External iliac.
- B. Internal iliac.
- C. Superficial inguinal.

D. Deep inguinal

Ans. D

Q 8. All of the following physiological processes occur during the growth at the epiphyseal plate except;

A. Proliferation and hypertrophy.

B. Calcification and ossification.

C. Vasculogenesis and erosion.

D. Replacement of red bone marrow with yellow marrow.

Ans. D

Q 9. Benign prostatic hypertrophy results in obstruction of the urinary tract. The specific condition is associated with enlargement of the:

A. Entire prostate gland.

B. Lateral lobes.

C. Median lobe.

D. Posterior lobes.

Ans. C

Q 10. In an adult male, on per rectal examination, the following structures can be felt anteriorly except:

A. Internal iliac lymph nodes.

B. Bulb of the penis.

C. Prostate.

D. Seminal vesicle when enlarged.

Ans. A

Q 11. While doing thoracocentesis, it is advisable to introduce needle along:

A. Upper border of the rib.

B. Lower border of the rib.

C. In the center of the intercostals space.

D. In anterior part of intercostals space.

Ans. A

Q 12. All of the following are branches of the external carotid artery except:

A. Superior thyroid artery.

B. Anterior ethmoidal artery.

C. Occipital artery.

D. Posterior auricular artery.

Ans. B

Q 13. Barr body is found in the following phase of the cell cycle:

A. Interphase.

B. Metaphase.

C. G1 phase.

D. Telophase.

Ans. A

PHYSIOLOGY

Q 14. The type of hemoglobin that has least affinity for 2,3-diphosphoglycerate (2,3-DPG) or (2,3-BPG) is:

A. Hg A.

B. Hg F.

C. Hg B.

D. Hg A2.

Ans. B

Q 15. Cellular and flagellar movement is carried out by all of the following except:

- A. Intermediate filaments.
- B. Actin.
- C. Tubulin.
- D. Myosin.

Ans. D

Q 16. Heme is converted to bilirubin mainly in:

- A. Kidney.
- B. Liver
- C. Spleen
- D. Bone marrow.

Ans. C

Q 17. Normal CSF glucose level in a normoglycemic adult is:

- A. 20-40 mg/dl
- B. 40-70 mg/dl
- C. 70-90 mg/dl
- D. 90-110 mg/dl.

Ans. B

Q 18. Which one of the following molecules is used for cell signaling?

- A. CO₂
- B. O₂
- C. NO
- D. N₂

Ans. C

Q 19. Osteoclasts are inhibited by:

- A. Parathyroid hormone.
- B. Calcitonin.
- C. 1,25-dihydroxycholecalciferol.
- D. Tumor necrosis factor.

Ans. B

Q 20. CO₂ is primarily transported in the arterial blood as:

- A. Dissolved CO₂.
- B. Carbonic acid
- C. Carbamino-hemoglobin
- D. Bicarbonate.

Ans. D

Q 21. Both vitamin K and C are involved in:

- A. The synthesis of clotting factors.
- B. Post translational modifications.
- C. Antioxidant mechanisms.
- D. The microsomal hydroxylation reactions.

Ans. B

Q 22. The main site of bicarbonate reabsorption is:

- A. Proximal convoluted tubule.
- B. Distal convoluted tubule.
- C. Cortical collecting duct.
- D. Medullary collecting duct.

Ans. A

Q 23. The membrane protein, clathrin is involved in:

- A. Cell motility.

- B. Receptor-mediated endocytosis.
- C. Exocytosis.
- D. Cell shape.

Ans. B

Q 24. The parvocellular pathway from lateral geniculate nucleus to visual cortex is most sensitive for the stimulus of:

- A. Color contrast.
- B. Luminance contrast.
- C. Temporal frequency.
- D. Saccadic eye movements.

Ans. A

Q 25. The fibers from the contralateral nasal hemiretina project to the following layers of the lateral geniculate nucleus:

- A. Layers 2, 3 & 5.
- B. Layers 1, 2 & 6.
- C. Layers 1, 4 & 6.
- D. Layers 4, 5 & 6.

Ans. C

Q 26. All endothelial cells produce thrombomodulin except those found in:

- A. Hepatic circulation
- B. Cutaneous circulation
- C. Cerebral microcirculation.
- D. Renal circulation.

Ans. C

Q 27. SA node acts as a pacemaker of the heart because of the fact that it:

- A. Is capable of generating impulses spontaneously.
- B. Has rich sympathetic innervations.
- C. Has poor cholinergic innervations.
- D. Generates impulses at the highest rate.

Ans. D

Q 28. The first physiological response to high environmental temperature is:

- A. Sweating
- B. Vasodilatation.
- C. Decrease heat production.
- D. Non-shivering thermogenesis.

Ans. B

Q 29. All of the following factors normally increase the length of the ventricular cardiac muscle fibres except:

- A. Increased venous tone.
- B. Increased total blood volume.
- C. Increased negative intrathoracic pressure.
- D. Lying-to-standing change in posture.

Ans. D

Q 30. The vasodilatation produced by carbon dioxide is maximum in one of the following:

- A. Kidney.
- B. Brain.
- C. Liver.
- D. Heart.

Ans. B

Q 31. Which one of the following statements regarding water reabsorption in the tubules?

- A. The bulk of water reabsorption occurs secondary to Na⁺ reabsorption.
- B. Majority of facultative reabsorption occurs in proximal tubule.
- C. Obligatory reabsorption is ADH dependent.
- D. 20% of water is always reabsorbed irrespective of water balance.

Ans. A

Q 32. Urinary concentrating ability of the kidney is increased by:

- A. ECF volume contraction.
- B. Increase in RBF.
- C. Reduction of medullary hyperosmolarity.
- D. Increase in CFR.

Ans. A

Q 33. Distribution of blood flow is mainly regulated by the:

- A. Arteries.
- B. Arterioles.
- C. Capillaries.
- D. Venules.

Ans. B

Q 34. In which of the following a reduction in arterial oxygen tension occurs?

- A. Anaemia.
- B. CO poisoning.
- C. Moderate exercise.
- D. Hypoventilation.

Ans. D

Q 35. With which one of the following lower motor neuron lesions are associated?

- A. Flaccid paralysis.
- B. Hyperactive stretch reflex.
- C. Spasticity.
- D. Muscular incoordination.

Ans. A

Q 36. Which of the following statements can be regarded as primary action of inhibin?

- A. It inhibits secretion of prolactin.
- B. It stimulates synthesis of estradiol.
- C. It stimulates secretion of TSH.
- D. It inhibits secretion of FSH.

Ans. D

BIOCHEMISTRY

Q 37. The predominant isozyme of LDH in cardiac muscle is:

- A. LD-1
- B. LD-2
- C. LD-3
- D. LD-5

Ans. A

Q 38. All of the following hormones have cell surface receptors except:

- A. Adrenalin
- B. Growth hormone.
- C. Insulin
- D. Thyroxine.

Ans. D

Q 39. Fluoride, used in the collection of blood samples for glucose estimation, inhibits the enzyme:

- A. Glucokinase.
- B. Hexokinase.
- C. Enolase.
- D. Glucose-6-phosphatase.

Ans. C

Q 40. Enzymes that move a molecular group from one molecule to another are known as:

- A. Ligases.
- B. Oxido-reductases.
- C. Transferases.
- D. Dipeptidases.

Ans. C

Q 41. The amino acid residue having an imino side chain is:

- A. Lysine.
- B. Histidine.
- C. Tyrosine.
- D. Proline.

Ans. D

MICROBIOLOGY

Q 42. A woman with infertility receives an ovary transplant from her sister who is an identical twin. What type of graft it is?

- A. Xenograft
- B. Autograft
- C. Allograft
- D. Isograft.

Ans. D

Q 43. Virus mediated transfer of host DNA from one cell to another is known as:

- A. Transduction.
- B. Transformation.
- C. Transcription.
- D. Integration.

Ans. A

Q 44. In the small intestine, cholera toxin acts by:

- A. ADP-ribosylation of the G regulatory protein.
- B. Inhibition of adenyl cyclase.
- C. Activation of GTPase.
- D. Active absorption of NaCl.

Ans. A

Q 45. HIV can be detected and confirmed by:

- A. Polymerase chain reaction (PCR)
- B. Reverse transcriptase - PCR
- C. Real time PCR
- D. Mimic PCR.

Ans. B

Q 46. With reference to infections with Escherichia coli the following are true except:

- A. Enteraggregative E. coli is associated with persistent diarrhoea.
- B. Enterohemorrhagic E.coli can cause haemolytic uraemic syndrome.

- C. Enteroinvasive *E. coli* produces a disease similar to salmonellosis.
- D. Enterotoxigenic *E. coli* is a common cause of travelers diarrhoea.

Ans. C

Q 47. The following statements are true regarding melioidosis except:

- A. It is caused by *Burkholderia mallei*.
- B. The agent is a gram negative aerobic bacteria.
- C. Bipolar staining of the aetiological agent is seen with methylene blue stain.
- D. The most common form of melioidosis is pulmonary infection.

Ans. A

Q 48. The following bacteria are most often associated with acute neonatal meningitis except:

- A. *Escherichia coli*.
- B. *Streptococcus agalactiae*.
- C. *Neisseria meningitidis*.
- D. *Listeria monocytogenes*.

Ans. C

Q 49. All of the following *Vibrio* sp. are halophilic, except:

- A. *V. cholerae*.
- B. *V. parahaemolyticus*.
- C. *V. alginolyticus*.
- D. *V. fluvialis*.

Ans. A

Q 50. All of the following organisms are known to survive intracellularly except:

- A. *Neisseria meningitidis*.
- B. *Salmonella typhi*.
- C. *Streptococcus pyogenes*.
- D. *Legionella pneumophila*.

Ans. C

Q 51. The capsule of *Cryptococcus neoformans* in a CSF sample is best seen by:

- A. Grams stain.
- B. India ink preparation.
- C. Giemsa stain.
- D. Methanamine-silver stain.

Ans. B

Q 52. Viruses can be isolated from clinical samples by cultivation in the following except:

- A. Tissue culture.
- B. Embryonated eggs.
- C. Animals.
- D. Chemically defined media.

Ans. D

Q 53. It is true regarding the normal microbial flora present on the skin and mucous membranes that:

- A. It cannot be eradicated by antimicrobial agents.
- B. It is absent in the stomach due to the acidic pH.
- C. It establishes in the body only after the neonatal period.
- D. The flora in the small bronchi is similar to that of the trachea.

Ans. A

Q 54. An army jawan posted in a remote forest area had fever and headache. His fever was 104°F and pulse was 70 per min. He had an erythematous lesion of

about 1 cm on the leg surrounded by small vesicles, along with generalized lymphadenopathy at the time of presentation to the referral hospital. His blood sample was collected to perform serology for the diagnosis of Rickettsial disease. Which one of the following results in Weil-Felix reaction will be diagnostic in this clinical setting:

- A. High OX-2.
- B. High OX-19.
- C. High OX-K.
- D. High OX-19 and OX-2.

Ans. C

Q 55. Adenosine deaminase (enzyme) deficiency is associated with:

- A. Severe combined immunodeficiency (SCID)
- B. X-linked agammaglobulinemia.
- C. Transient hypogammaglobulinemia of infancy.
- D. Chronic granulomatous disease.

Ans. A

Q 56. Which of the following viral infections is transmitted by tick?

- A. Japanese encephalitis.
- B. Dengue fever.
- C. Kyasanur forest disease (KFD).
- D. Yellow fever.

Ans. C

Q 57. Atypical pneumonia can be caused by the following microbial agents except:

- A. Mycoplasma pneumoniae.
- B. Legionella pneumophila.
- C. Human Corona virus.
- D. Klebsiella pneumoniae.

Ans. D

Q 58. The serum concentration of which of the following human IgG subclass is maximum?

- A. IgG1.
- B. IgG2.
- C. IgG3.
- D. IgG4.

Ans. A

Q 59. Chlamydia trachomatis is associated with the following except:

- A. Endemic trachoma.
- B. Inclusion conjunctivitis.
- C. Lymphogranuloma venereum.
- D. Community acquired pneumonia.

Ans. D

Q 60. The following statements are true regarding Clostridium perfringens except:

- A. It is commonest cause of gas gangrene.
- B. It is normally present in human faeces.
- C. The principal toxin of C.perfringens is the alpha toxin.
- D. Gas gangrene producing strains of C.perfringens produce heat resistant spores.

Ans. D

Q 61. The most common organism amongst the following that causes acute meningitis in an AIDS patients is:

- A. Streptococcus pneumoniae.

- B. *Streptococcus agalactiae*.
- C. *Cryptococcus neoformans*.
- D. *Listeria monocytogenes*.

Ans. C

Q 62. A bacterial disease that has been associated with the 3 "Rs" i.e., rats, ricefields, and rainfall is:

- A. Leptospirosis.
- B. Plague.
- C. Melioidosis.
- D. Rodent-bite fever.

Ans. A

Q 63. A child was diagnosed to be suffering from diarrhoea due to *Campylobacter jejuni*. Which of the following will be the correct environmental conditions of incubation of the culture plates of the stool sample:

- A. Temperature of 42°C and microaerophilic.
- B. Temperature of 42°C and 10% carbon dioxide.
- C. Temperature of 37°C and microaerophilic.
- D. Temperature of 37°C and 10% carbon dioxide.

Ans. A

Q 64. Which one of the following statements is true regarding *Chlamydia pneumoniae*:

- A. Fifteen serovars have been identified as human pathogens.
- B. Mode of transmission is by the airborne bird excreta.
- C. The cytoplasmic inclusions present in the sputum specimen are rich in glycogen.
- D. The group specific antigen is responsible for the production of complement fixing antibodies.

Ans. D

Q 65. Type I hypersensitivity is mediated by which of the following immunoglobulins?

- A. IgA.
- B. IgG.
- C. IgM.
- D. IgE.

Ans. D

PATHOLOGY

Q 66. An example of a tumour suppressor gene is:

- A. Myc.
- B. Fos.
- C. Ras.
- D. Rb.

Ans. D

Q 67. The following is not a feature of malignant transformation by cultured cells:

- A. Increased cell density.
- B. Increased requirement for growth factors.
- C. Alterations of cytoskeletal structures.
- D. Loss of anchorage.

Ans. B

Q 68. A simple bacterial test for mutagenic carcinogens is:

- A. Ames test.
- B. Redox test.
- C. Bacteriophage.

D. Gene splicing.

Ans. A

Q 69. The classification proposed by the International Lymphoma Study Group for non-Hodgkin's lymphoma is known as:

A. Kiel classification.

B. REAL classification.

C. WHO classification.

D. Rappaport classification.

Ans. B

Q 70. All of the following features are seen in the viral pneumonia except:

A. Presence of interstitial inflammation.

B. Predominance of alveolar exudates.

C. Bronchiolitis.

D. Multinucleate giant cells in the bronchiolar wall.

Ans. B

Q 71. Aschoff's nodules are seen in:

A. Subacute bacterial endocarditis.

B. Libman-Sacks endocarditis.

C. Rheumatic carditis.

D. Non-bacterial thrombotic endocarditis.

Ans. C

Q 72. Pulmonary surfactant is secreted by:

A. Type I pneumocytes.

B. Type II pneumocytes.

C. Clara cells.

D. Bronchial epithelial cells.

Ans. B

Q 73. Which one of the following conditions commonly predisposes to colonic carcinoma?

A. Ulcerative colitis.

B. Crohn's disease.

C. Diverticular disease.

D. Ischaemic colitis.

Ans. A

Q 74. Fibrinoid necrosis may be observed in all of the following except:

A. Malignant hypertension.

B. Polyarteritis nodosa.

C. Diabetic glomerulosclerosis.

D. Aschoff's nodule.

Ans. C

Q 75. All of the following statements are true regarding reversible cell injury, except:

A. Formation of amorphous densities in the mitochondrial matrix.

B. Diminished generation of adenosine triphosphate (ATP)

C. Formation of blebs in the plasma membrane.

D. Detachment of ribosomes from the granular endoplasmic reticulum.

Ans. A

Q 76. Which of the following statements pertaining to leukemia is correct?

A. Blasts of acute myeloid leukemia are typically sudan black negative.

B. Blasts of acute lymphoblastic leukemia are typically myeloperoxidase positive.

C. Low leucocyte alkaline phosphatase score is characteristically seen in blastic

phase of chronic myeloid leukemia.

D. Tartarate resistant acid phosphatase positivity is typically seen in hairy cell leukemia.

Ans. D

Q 77. In which of the following conditions bilateral contracted kidneys are characteristically seen?

A. Amyloidosis.

B. Diabetes mellitus.

C. Rapidly progressive (crescentic) glomerulonephritis.

D. Benign nephrosclerosis.

Ans. D

Q 78. All of the following vascular changes are observed in acute inflammation, except:

A. Vasodilation.

B. Stasis of blood.

C. Increased vascular permeability.

D. Decreased hydrostatic pressure.

Ans. D

Q 79. The subtype of Hodgkin's disease, which is histogenetically distinct from all the other subtypes, is:

A. Lymphocyte predominant.

B. Nodular sclerosis.

C. Mixed cellularity.

D. Lymphocyte depleted.

Ans. A

Q 80. In apoptosis, Apaf-1 is activated by release of which of the following substances from the mitochondria?

A. Bcl-2

B. Bax.

C. Bcl-XL

D. Cytochrome C.

Ans. D

Q 81. Which type of amyloidosis is caused by mutation of the transthyretin protein?

A. Familial Mediterranean fever.

B. Familial amyloidotic polyneuropathy.

C. Dialysis associated amyloidosis.

D. Prion protein associated amyloidosis.

Ans. B

Q 82. In familial Mediterranean fever, the gene encoding the following protein undergoes mutation:

A. Pyrin.

B. Perforin.

C. Atrial natriuretic factor.

D. Immunoglobulin light chain.

Ans. A

Q 83. Which of the following statements is not true?

A. Patients with IgD myeloma may present with no evident M-spike on serum electrophoresis.

B. A diagnosis of plasma cell leukemia can be made if circulating peripheral blood plasmablasts comprise 14% of peripheral blood white cells in a patient with $109/L$.

109/L and platelet count of 88 × white blood cell count of 11

C. In smoldering myeloma plasma cells constitute 10-30% of total bone marrow cellularity.

D. In a patient with multiple myeloma, a monoclonal light chain may be detected in both serum and urine.

Ans. B

Q 84. In-situ DNA nick end labeling can quantitate:

A. Fraction of cells in apoptotic pathways.

B. Fraction of cells in S phase.

C. p53 gene product.

D. bcr/abl gene.

Ans. A

Q 85. Which one of the following stains is specific for amyloid?

A. Periodic acid Schiff (PAS)

B. Alzerian red.

C. Congo red.

D. Von-Kossa.

Ans. C

Q 86. Which one of the following diseases characteristically causes fatty change in liver?

A. Hepatitis B virus infection.

B. Wilson's disease.

C. Hepatitis C virus infection.

D. Chronic alcoholism.

Ans. D

Q 87. A 48-year-old woman was admitted with a history of weakness for two months. On examination, cervical lymph nodes were found enlarged and spleen was palpable 2 cm below the costal margin. Her hemoglobin was 10.5 g/dl, platelet count 237 × 10⁹/L and total leukocyte count 40 × 10⁹/L, which included 80% mature lymphoid cells with coarse clumped chromatin. Bone marrow revealed a nodular lymphoid infiltrate. The peripheral blood lymphoid cells were positive for CD19, CD5, CD20 and CD23 and were negative for CD79B and FMC-7.

The histopathological examination of the lymph node in this patient will most likely exhibit effacement of lymph node architecture by:

A. A pseudofollicular pattern with proliferation centers.

B. A monomorphic lymphoid proliferation with a nodular pattern.

C. A predominantly follicular pattern.

D. A diffuse proliferation of medium to large lymphoid cells with high mitotic rate.

Ans. D

Q 88. Which one of the following is not a feature of liver histology in non cirrhotic portal fibrosis (NCPF).

A. Fibrosis in and around the portal tracts.

B. Thrombosis of the medium and small portal vein branches.

C. Non specific inflammatory cell infiltrates in the portal tracts.

D. Bridging fibrosis.

Ans. D

PHARMACOLOGY

Q 89. A highly ionized drug:

A. Is excreted mainly by the kidney.

B. Can cross the placental barrier easily.

- C. Is well absorbed from the intestine.
- D. Accumulates in the cellular lipids.

Ans. A

Q 90. Which one of the following drugs is 'topoisomerase 1 inhibitor'?

- A. Doxorubicin.
- B. Irinotecan.
- C. Etoposide.
- D. Vincristine.

Ans. B

Q 91. The following drugs have significant drug interaction with digoxin, except:

- A. Cholestyramine.
- B. Thiazide diuretics.
- C. Quinidine.
- D. Amlodipine.

Ans. D

Q 92. One of the following is not true about nesiritide:

- A. It is a brain natriuretic peptide analogue.
- B. It is used in acutely decompensated heart failure.
- C. It has significant oral absorption.
- D. It has a short half-life.

Ans. C

Q 93. Antipsychotic drug-induced parkinsonism is treated by:

- A. Anticholinergics.
- B. Levodopa.
- C. Selegiline.
- D. Amantadine.

Ans. A

Q 94. Which one of the following is used in therapy of toxoplasmosis?

- A. Artesunate.
- B. Thiacetazone.
- C. Ciprofloxacin.
- D. Pyrimethamine.

Ans. D

Q 95. The following statements regarding finasteride are true except:

- A. It is used in the medical treatment of benign prostatic hypertrophy (BPH)
- B. Impotence is well documented after its use.
- C. It blocks the conversion of dihydrotestosterone to testosterone.
- D. It is a 5-a reductase inhibitor.

Ans. C

Q 96. Eterncept acts by one of the following mechanisms:

- A. By blocking tumor necrosis factor.
- B. By blocking bradykinin synthesis.
- C. By inhibiting cyclo-oxygenase-2.
- D. By blocking lipoyxygenase.

Ans. A

Q 97. In unconjugated hyperbilirubinemia, the risk of kernicterus increases with the use of:

- A. Ceftriaxone.
- B. Phenobarbitone.
- C. Ampicillin.

D. Sulphonamide.

Ans. D

Q 98. All of the following are topically used sulphonamides except:

A. Sulphacetamide.

B. Sulphadiazine.

C. Silver sulphadiazine.

D. Mafenide.

Ans. B

Q 99. Oculogyric crisis is known to be produced by all of the following drugs except:

A. Trifluoperazine.

B. Atropine.

C. Perchlorperazine.

D. Perphenazine.

Ans. B

Q 100. Which of the following drugs is useful in prophylaxis of migraine?

A. Propranolol.

B. Sumatriptan.

C. Domperidone.

D. Ergotamine.

Ans. A

Q 101. Inverse agonist of benzodiazepine receptor is:

A. Phenobarbitone.

B. Flumazenil.

C. Beta-Carboline.

D. Gabapentin.

Ans. C

Q 102. The group of antibiotics which possess additional anti-inflammatory and immunomodulatory activities is:

A. Tetracyclines.

B. Polypeptide antibiotics.

C. Fluoroquinolones.

D. Macrolides.

Ans. D

Q 103. With which of the following theophylline has an antagonistic interaction?

A. Histamine receptors.

B. Bradykinin receptors.

C. Adenosine receptors.

D. Imidazoline receptors.

Ans. C

Q 104. One of the following is not penicillinase susceptible:

A. Amoxicillin.

B. Penicillin G.

C. Piperacillin.

D. Cloxacillin.

Ans. D

Q 105. Which one of the following is best associated with lumefantrine?

A. Antimycobacterial.

B. Antifungal.

C. Antimalarial.

D. Antiamoebic.

Ans. C

Q 106. Which one of the following drugs increases gastro-intestinal motility?

- A. Glycopyrrolate.
- B. Atropine.
- C. Neostigmine.
- D. Fentanyl.

Ans. C

Q 107. Nevirapine is a:

- A. Protease inhibitor.
- B. Nucleoside reverse transcriptase inhibitor.
- C. Non-nucleoside reverse transcriptase inhibitor.
- D. Fusion inhibitor.

Ans. C

FORENSIC MEDICINE

Q 108. In a firearm injury, there is burning, blackening, tootooing around the wound, along with cherry red colour of the surrounding tissues and is cruciate in shape, the injury is:

- A. Close shot entry.
- B. Close contact exit.
- C. Contact shot entry.
- D. Distant shot entry.

Ans. C

Q 109. In methyl alcohol poisoning there is CNS depression cardiac depression and optic nerve atrophy. These effects are produced due to:

- A. Formaldehyde and formic acid.
- B. Acetaldehyde.
- C. Pyridine.
- D. Acetic acid.

Ans. A

Q 110. In chronic arsenic poisoning the following samples can be sent for laboratory examination except:

- A. Nail clippings.
- B. Hair samples.
- C. Bone biopsy.
- D. Blood sample.

Ans. D

Q 111. Which of the following statements is not correct regarding diatom?

- A. Diatoms are aquatic unicellular plant.
- B. Diatoms has an extracellular coat composed of magnesium.
- C. Acid digestion technique is used to extract diatoms.
- D. Presence of diatoms in the femoral bone marrow is an indication of antemortem inhalation of water.

Ans. B

Q 112. In India, magistrate inquest is done in the following cases except:

- A. Exhumation cases.
- B. Dowry deaths within 5 years of marriage.
- C. Murder cases.
- D. Death of a person in police custody.

Ans. C

Q 113. At autopsy, the cyanide poisoning case will show the following features,

except:

- A. Characteristic bitter lemon smell.
- B. Congested organs.
- C. The skin may be pinkish or cherry red in colour.
- D. Erosion and haemorrhages in oesophagus and stomach.

Ans. A

Q 114. The most reliable criteria in Gustafson's method of identification is:

- A. Cementum apposition.
- B. Transparency of root.
- C. Attrition.
- D. Root resorption.

Ans. B

Q 115. The minimum age at which an individual is responsible for his criminal act is:

- A. 7 years.
- B. 12 years.
- C. 16 years.
- D. 21 years.

Ans. A

Q 116. The most reliable method of identification of an individual is:

- A. Dactylography.
- B. Scars.
- C. Anthropometry.
- D. Handwriting.

Ans. A

Q 117. The most common pattern of finger print is:

- A. Arch.
- B. Loop.
- C. Whorl.
- D. Composite.

Ans. B

PSM

Q 118. 'Endemic disease' means that a disease:

- A. Occurs clearly in excess of normal expectancy.
- B. Is constantly present in a given population group.
- C. Exhibits seasonal pattern.
- D. Is prevalent among animals.

Ans. B

Q 119. Which one of the following is a good index of the severity of an acute disease?

- A. Cause specific death rate.
- B. Case fatality rate.
- C. Standardized mortality ratio.
- D. Five year survival.

Ans. B

Q 120. Which one of the following statements about influence of smoking on risk of coronary heart disease (CHD) is not true?

- A. Influence of smoking is independent of other risk factors for CHD.
- B. Influence of smoking is only additive to other risk factors for CHD.
- C. Influence of smoking is synergistic to other risk factors for CHD.
- D. Influence of smoking is directly related to number of cigarettes smoked per day.

Ans. B

Q 121. Antibiotic treatment of choice for treating cholera in an adult is a single dose of:

- A. Tetracycline.
- B. Co-trimoxazole.
- C. Doxycycline.
- D. Furazolidone.

Ans. C

Q 122. All of the following statements are true about congenital rubella except:

- A. It is diagnosed when the infant has IgM antibodies at birth.
- B. It is diagnosed when IgG antibodies persist for more than 6 months.
- C. Most common congenital defects are deafness, cardiac malformations and cataract.
- D. Infection after 16 weeks of gestation results in major congenital defects.

Ans. D

Q 123. The recommended daily energy intake of an adult woman with heavy work is:

- A. 1800.
- B. 2100.
- C. 2300.
- D. 2900.

Ans. D

Q 124. All of the following methods are antilarval measures except:

- A. Intermittent irrigation.
- B. Paris green.
- C. Gamusia affinis.
- D. Malathion.

Ans. D

Q 125. All of the following are true about the herd immunity for infectious diseases except:

- A. It refers to group protection beyond what is afforded by the protection of immunized individuals.
- B. It is likely to be more for infections that do not have a sub-clinical phase.
- C. It is affected by the presence and distribution of alternative animal hosts.
- D. In the case of tetanus it does not protect the individual.

Ans. B

Q 126. The best indicator for monitoring the impact of iodine deficiency disorder control programme is:

- A. Prevalence of goiter among school children.
- B. Urinary iodine levels among pregnant women.
- C. Neonatal hypothyroidism.
- D. Iodine level in soil.

Ans. C

Q 127. What is the color-coding of bag in hospitals to dispose off human anatomical wastes such as body parts:

- A. Yellow.
- B. Black.
- C. Red.
- D. Blue.

Ans. A

Q 128. WHO defines adolescent age between:

- A. 10-19 years of age.
- B. 10-14 years of age.
- C. 10-25 years of age.
- D. 9-14 years of age.

Ans. A

Q 129. In a village having population of 1000, we found patients with certain disease. The results of a new diagnostic test on that disease are as follows.

Test result	Disease Present	Disease Absent
+	180	400
-	20	400

+ 180 400

- 20 400

What is the percent prevalence of disease?

- A. 0.20
- B. 2
- C. 18
- D. 20

Ans. D

Q 130. The following tests are used to check the efficiency of pasteurization of milk except:

- A. Phosphatase test.
- B. Standard plate count.
- C. Coliform count.
- D. Methylene blue reduction test.

Ans. D

Q 131. What will be the BMI of a male whose weight is 89 kg and height is 172 cm:

- A. 27
- B. 30
- C. 33
- D. 36

Ans. B

Q 132. The most common side effect of IUD insertion is:

- A. Bleeding.
- B. Pain.
- C. Pelvic infection.
- D. Ectopic pregnancy.

Ans. A

Q 133. For the treatment of case of class III dog bite, all of the following are correct except:

- A. Give immunoglobulins for passive immunity.
- B. Give ARV.
- C. Immediately stitch wound under antibiotic coverage.
- D. Immediately wash wound with soap and water.

Ans. C

Q 134. A 2-year-old female child was brought to a PHC with a history of cough and fever for 4 days with inability to drink for last 12 hours. On examination, the child was having weight of 5 kg and respiratory rate of 45/minute with fever. The child will be classified as suffering from:

- A. Very severe disease.
- B. Severe pneumonia.
- C. Pneumonia.

D. No pneumonia.

Ans. A

Q 135. The information technology has revolutionized the world of medical sciences. In which of the following year the Information Technology Act was passed by the Government of India?

A. 1998.

B. 2000.

C. 2001.

D. 2003.

Ans. B

Q 136. Transplantation of Human Organs Act was passed by Government of India in:

A. 1996

B. 1993

C. 1998

D. 1994

Ans. D

Q 137. Which one of the following is not source of manager's power?

A. Reward

B. Coercive

C. Legitimate.

D. Efferent.

Ans. D

Q 138. The standard normal distribution:

A. Is skewed to the left.

B. Has mean = 1.0

C. Has standard deviation = 0.0

D. Has variance = 1.0

Ans. D

Q 139. The PEFr of a group of 11 year old girls follow a normal distribution with mean 300 l/min and standard deviation 20 l/min:

A. About 95% of the girls have PEFr between 260 and 340 l/min.

B. The girls have healthy lungs.

C. About 5% of girls have PEFr below 260 l/min.

D. All the PEFr must be less than 340 l/min.

Ans. A

Q 140. The events A and B are mutually exclusive, so:

A. $\text{Prob}(A \text{ or } B) = \text{Prob}(A) + \text{Prob}(B)$.

B. $\text{Prob}(A \text{ and } B) = \text{Prob}(A) \cdot \text{Prob}(B)$.

C. $\text{Prob}(A) = \text{Prob}(B)$.

D. $\text{Prob}(A) + \text{Prob}(B) = 1$.

Ans. D

Q 141. Total cholesterol level = a + b (calorie intake) + C (physical activity) + d (body mass index); is an example of:

A. Simple linear regression.

B. Simple curvilinear regression.

C. Multiple linear regression.

D. Multiple logistic regression.

Ans. C

Q 142. The Hb level in healthy woman has mean 13.5 g/dl and standard deviation

1.5 g/dl, what is the Z score for a woman with Hb level 15.0 g/dl:

- A. 9.0
- B. 10.0
- C. 2.0
- D. 1.0

Ans. D

Q 143. The diagnostic power of a test to correctly exclude the disease is reflected by:

- A. Sensitivity
- B. Specificity
- C. Positive predictivity
- D. Negative predictivity.

Ans. D

Q 144. Infant mortality does not include:

- A. Early neonatal mortality.
- B. Perinatal mortality.
- C. Post neonatal mortality.
- D. Late neonatal mortality.

Ans. B

Q 145. A cardiologist found a highly significant correlation coefficient ($r=0.90$, $p=0.01$) between the systolic blood pressure values and serum cholesterol values of the patients attending his clinic. Which of the following statements is a wrong interpretation of the correlation coefficient observed?

- A. Since there is a high correlation, the magnitudes of both the measurements are likely to be close to each other.
- B. A patient with a high level of systolic BP is also likely to have a high level of serum cholesterol.
- C. A patient with a low level of systolic BP is also likely to have a low level of serum cholesterol.
- D. About 80% of the variation in systolic blood pressure among his patients can be explained by their serum cholesterol values and vice a versa.

Ans. A

Q 146. The most common cancer affecting Indian urban women in Delhi, Mumbai and Chennai is:

- A. Cervical cancer.
- B. Ovarian cancer.
- C. Breast cancer.
- D. Uterine cancer.

Ans. C

MEDICINE

Q 147. The most common pathogens responsible for nosocomial pneumonias in the ICU are:

- A. Gram positive organisms.
- B. Gram negative organisms.
- C. Mycoplasma.
- D. Virus infections.

Ans. B

Q 148. The abnormal preoperative pulmonary function test in a patient with severe kyphoscoliosis includes:

- A. Increased RV/TLC.

- B. Reduced FEV1/FVC.
- C. Reduced FEV25-75.
- D. Increased FRC.

Ans. A

Q 149. Which one of the following drugs has been shown to offer protection from gastric aspiration syndrome in a patient with symptoms of reflux?

- A. Ondansetron.
- B. Metoclopramide.
- C. Sodium citrate.
- D. Atropine.

Ans. C

Q 150. Which one of the following is true of adrenal suppression due to steroid therapy?

- A. It is not associated with atrophy of the adrenal glands.
- B. It does not occur in patients receiving inhaled steroids.
- C. It should be expected in anyone receiving > 5 mg, prednisolone daily.
- D. Following cessation, the stress response normalizes after 8 weeks.

Ans. C

Q 151. A 30-year-old male patient presents with complaints of weakness in right upper and both lower limbs for last 4 months. He developed digital infarcts involving 2nd and 3rd fingers on right side and 5th finger on left side. On examination, BP was 160/140 mmHg, all peripheral pulses were palpable and there was asymmetrical neuropathy. Investigations showed a Hb-12 gm, TLC-12000 cumm, platelets 4,30,000, ESR-49 mm. Urine examination showed proteinuria and RBC 10-15/ hpf with no casts. Which of the following is the most likely diagnosis?

- A. Polyarteritis nodosa.
- B. Systemic LUPUS erythematosus.
- C. Wegener's granulomatosis.
- D. Mixed cryoglobulemia.

Ans. A

Q 152. Which of the following infestation leads to malabsorption?

- A. Giardia lamblia.
- B. Ascaris lumbricoides.
- C. Necator americana.
- D. Ancylostoma duodenale.

Ans. A

Q 153. All of the following can cause osteoporosis except:

- A. Hyperparathyroidism.
- B. Steroid use.
- C. Fluorosis.
- D. Thyrotoxicosis.

Ans. C

Q 154. Serum angiotensin converting enzyme may be raised in all of the following except:

- A. Sarcoidosis.
- B. Silicosis.
- C. Berylliosis.
- D. Bronchogenic carcinoma.

Ans. D

Q 155. Hypercalcemia associated with malignancy is most often mediated by:

- A. Parathyroid hormone (PTH)
- B. Parathyroid hormone related protein (PTHrP)
- C. Interleukin-6 (IL-6)
- D. Calcitonin.

Ans. B

Q 156. All of the following are the causes of relative polycythemia except:

- A. Dehydration.
- B. Dengue haemorrhagic fever.
- C. Gaisbock syndrome.
- D. High altitude.

Ans. D

Q 157. All of the following may cause ST segment elevation on EKG, except:

- A. Early repolarization variant.
- B. Constrictive pericarditis.
- C. Ventricular aneurysm.
- D. Prinzmetal angina.

Ans. B

Q 158. 5'-Nucleotidase activity is increased in:

- A. Bone diseases.
- B. Prostate cancer.
- C. Chronic renal failure.
- D. Cholestatic disorders.

Ans. D

Q 159. Bart's hydrops fetalis is lethal because:

- A. Hb Bart's cannot bind oxygen.
- globin form insoluble precipitates.
- B. The excess
- C. Hb Bart's cannot release oxygen to fetal tissues.
- D. Microcytic red cells become trapped in the placenta.

Ans. C

Q 160. Cluster headache is characterized by all except:

- A. Affects predominantly females.
- B. Unilateral headache.
- C. Onset typically in 20-50 years of life.
- D. Associated with conjunctival congestion.

Ans. A

Q 161. The most sensitive test for the diagnosis of myasthenia gravis is:

- A. Elevated serum ACh-receptor binding antibodies.
- B. Repetitive nerve stimulation test.
- C. Positive edrophonium test.
- D. Measurement of jitter by single fibre electromyography.

Ans. A

Q 162. Vitamin B12 deficiency can give rise to all of the following, except:

- A. Myelopathy.
- B. Optic atrophy.
- C. Peripheral neuropathy.
- D. Myopathy.

Ans. D

Q 163. EEG is usually abnormal in all of the following except:

- A. Subacute sclerosing panencephalitis.

- B. Locked-in state.
- C. Creutzfeldt-Jakob disease.
- D. Hepatic encephalopathy.

Ans. B

Q 164. All of the following are neurologic channelopathies except:

- A. Hypokalemic periodic paralysis.
- B. Episodic ataxia type 1.
- C. FAMILIAL hemiplegic migraine.
- D. Spinocerebellar ataxia 1.

Ans. D

Q 165. Which of the following is not a neuroparasite?

- A. Taenia solium.
- B. Acanthamoeba.
- C. Naegleria.
- D. Trichinella spiralis.

Ans. D

Q 166. A 50-year-old man, an alcoholic and a smoker presents with a 3 hour history of severe retrosternal chest pain and increasing shortness of breath. He started having this pain while eating, which was constant and radiated to the back and interscapular region. He was a known hypertensive. On examination, he was cold and clammy with a heart rate of 130/min, and a BP of 80/40 mm Hg. JVP was normal. All peripheral pulses were present and equal. Breath sounds were decreased at the left lung base and chest X-ray showed left pleural effusion. Which one of the following is the most likely diagnosis?

- A. Acute aortic dissection.
- B. Acute myocardial infarction.
- C. Rupture of the esophagus.
- D. Acute pulmonary embolism.

Ans. A

Q 167. Which of the following is a cause of reversible dementia?

- A. Subacute combined degeneration.
- B. Picks disease.
- C. Creutzfeld-Jakob disease.
- D. Alzheimer's disease.

Ans. A

Q 168. Palpable purpura could occur in the following conditions, except:

- a. Thrombocytopenia.
- B. Small-vessel vasculitis.
- C. Disseminated gonococcal infection.
- D. Acute meningococcemia.

Ans. A

Q 169. A 59-year-old man with severe myxomatous mitral regurgitation is asymptomatic, with a left ventricular ejection fraction of 45% and an end-systolic diameter index of 2.9 cm/m². The most appropriate treatment is:

- A. Mitral valve repair or replacement.
- B. No treatment.
- C. ACE inhibitor therapy.
- D. Digoxin and diuretic therapy.

Ans. A

Q 170. The gold standard for the diagnosis of osteoporosis is:

- A. Dual energy X-ray absorptimetry.
- B. Single energy X-ray absorptimetry.
- C. Ultrasound.
- D. Quantitative computed tomography.

Ans. A

Q 171. All of the following CSF findings are present in tuberculous meningitis, except:

- A. Raised protein levels.
- B. Low chloride levels.
- C. Cob web formation.
- D. Raised sugar levels.

Ans. D

Q 172. Which one of the following serum levels would help in distinguishing an acute liver disease from chronic liver disease?

- A. Aminotransaminase.
- B. Alkaline phosphatase.
- C. Bilirubin.
- D. Albumin.

Ans. D

Q 173. All of the following conditions are known to cause diabetes insipidus except:

- A. Multiple sclerosis.
- B. Head injury.
- C. Histiocytosis.
- D. Viral encephalitis.

Ans. A

Q 174. Paralysis of 3rd, 4th 6th nerves with involvement of ophthalmic division of 5th nerve, localizes the lesion to:

- A. Cavernous sinus.
- B. Apex of orbit.
- C. Brainstem.
- D. Base of skull.

Ans. A

Q 175. Which one of the following is the most common location of hypertensive bleed in the brain ?

- A. Putamen/external capsule.
- B. Pons.
- C. Ventricles.
- D. Lobar white matter.

Ans. A

Q 176. In which of the following diseases, the overall survival is increased by screening procedure?

- A. Prostate cancer.
- B. Lung cancer.
- C. Colon cancer.
- D. Ovarian cancer.

Ans. C

Paediatrics

Q 177. The protective effects of breast milk are known to be associated with:

- A. IgM antibodies.
- B. Lysozyme.

- C. Mast cells.
- D. IgA antibodies.

Ans. D

Q 178. Study the following carefully:

Read the pedigree. Inheritance pattern of the disease in the family is:

- A. Autosomal recessive type.
- B. Autosomal dominant type.
- C. X linked dominant type.
- D. X linked recessive type.

Ans. D

Q 179. Diagnosis of beta thalassemia is established by:

- A. NESTROFT test.
- B. HbA1c estimation.
- C. Hb electrophoresis.
- D. Target cells in peripheral smear.

Ans. C

Q 180. Blood specimen for neonatal thyroid screening is obtained on:

- A. Cord blood.
- B. 24 hours after birth.
- C. 48 hours after birth.
- D. 72 hours after birth.

Ans. D

Q 181. A child with recurrent urinary tract infections is most likely to show:

- A. Posterior urethral valves.
- B. Vesicoureteric reflux.
- C. Neurogenic bladder.
- D. Renal and ureteric calculi.

Ans. B

Q 182. All of the following are true about manifestations of vitamin E deficiency, except:

- A. Hemolytic anemia.
- B. Posterior column abnormalities.
- C. Cerebellar ataxia.
- D. Autonomic dysfunction.

Ans. D

Q 183. Differential expression of same gene depending on parent of origin is referred to as:

- A. Genomic imprinting.
- B. Mosaicism.
- C. Anticipation.
- D. Non penetrance.

Ans. A

Q 184. The appropriate approach to a neonate presenting with vaginal bleeding on day 4 of life is:

- A. Administration of vitamin K.
- B. Investigation for bleeding disorder.
- C. No specific therapy.
- D. Administration of 10ml/kg of fresh frozen plasma over 4 hours.

Ans. C

Q 185. Which one of the following drugs is used for fetal therapy of congenital adrenal hyperplasia?

- A. Hydrocortisone.
- B. Prednisolone.
- C. Fludrocortisone.
- D. Dexamethasone.

Ans. D

Q 186. The coagulation profile in a 13-year-old girl with menorrhagia having von-Willebrands disease is:

- A. Isolated prolonged PTT with a normal PT.
- B. Isolated prolonged PT with a normal PTT.
- C. Prolongation of both PT and PTT.
- D. Prolongation of thrombin time.

Ans. A

Q 187. The chances of having an unaffected baby, when both parents have achondroplasia, are:

- A. 0%
- B. 25%
- C. 50%
- D. 100%

Ans. B

Q 188. All of the following therapies may be required in a 1 hour-old infant with severe birth asphyxia except:

- A. Glucose
- B. Dexamethasone.
- C. Calcium gluconate.
- D. Normal saline.

Ans. B

Q 189. The most common leukocytoclastic vasculitis affecting children is:

- A. Takayasu disease.
- B. Mucocutaneous lymph node syndrome (Kawasaki disease)
- C. Henoch Schonlein purpura.
- D. Polyarteritis nodosa.

Ans. C

Q 190. A four year old boy was admitted with a history of abdominal pain and fever for two months, maculopapular rash for ten days, and dry cough, dyspnea and wheezing for three days. On examination, liver and spleen were enlarged 4 cm and 3 cm respectively below the costal margins. His hemoglobin was 109/L, which is 109/L and total leukocyte count 70 × 10⁹/L, platelet count 37 × 10⁹/L with 80% eosinophils. Bone marrow examination revealed a cellular marrow comprising 45% blasts and 34% eosinophils and eosinophilic precursors. The blasts stained negative for myeloperoxidase and non-specific esterase and were positive for CD19, CD10, CD22 and CD20.

Which one of the following statements is not true about this disease?

- A. Eosinophils are not of the neoplastic clone.
- B. t(5:14) rearrangement may be detected in blasts.
- C. Peripheral blood eosinophilia may normalize with chemotherapy.
- D. Inv (16) is often detected in the blasts and the eosinophils.

Ans. D

Q 191. kidney biopsy from a child with hemolytic uremic syndrome characteristically

most likely presents features of:

- A. Thrombotic microangiopathy.
- B. Proliferative glomerulonephritis.
- C. Focal segmental glomerulosclerosis.
- D. Minimal change disease.

Ans. A

Q 192. One of the intestinal enzymes that is generally deficient in children following an attack of severe infectious enteritis is:

- A. Lactase.
- B. Trypsin.
- C. Lipase.
- D. Amylase.

Ans. A

Q 193. A new born presented with bloated abdomen shortly after birth with passing of less meconium. A full-thickness biopsy of the rectum was carried out. Which one of the following rectal biopsy findings is most likely to be present?

- A. Fibrosis of submucosa.
- B. Hyalinisation of the muscular coat.
- C. Thickened muscularis propria.
- D. Lack of ganglion cells.

Ans. D

Q 194. Eisenmenger syndrome is characterized by all except:

- A. Return of left ventricle & right ventricle to normal size.
- B. Pulmonary veins not distended.
- C. Pruning of peripheral pulmonary arteries.
- D. Dilatation of central pulmonary arteries.

Ans. A

Q 195. Which of the following is the most common renal cystic disease in infants is?

- A. Polycystic kidney.
- B. Simple renal cyst.
- C. Unilateral renal dysplasia.
- D. Calyceal cyst.

Ans. C

Q 196. The most common type of total anomalous pulmonary venous connection is:

- A. Supracardiac
- B. Infracardiac.
- C. Mixed.
- D. Cardiac.

Ans. A

Q 197. The most common cause of renal scarring in a 3 year old child is:

- A. Trauma.
- B. Tuberculosis.
- C. Vesicoureteral reflux induced pyelonephritis.
- D. Interstitial nephritis.

Ans. C

Q 198. Which one of the following is the common cause of congenital hydrocephalus is?

- A. Craniosynostosis.
- B. Intra uterine meningitis.
- C. Aqueductal stenosis.

D. Malformations of great Vein of Galen .

Ans. C

Q 199. In a child, non-functioning kidney is best diagnosed by:

A. Ultrasonography.

B. IVU.

C. DTPA renogram.

D. Creatinine clearance.

Ans. C

Q 200. The most common malignant neoplasm of infancy is:

A. Malignant teratoma.

B. Neuroblastoma.

C. Wilms' tumor.

D. Hepatoblastoma.

Ans. B

Q 201. The most common presentation of a child with Wilms' tumor is:

A. An asymptomatic abdominal mass.

B. Haematuria.

C. Hypertension.

D. Hemoptysis due to pulmonary secondary.

Ans. A

Psychiatry

Q 202. A 40-year-old male, with history of daily alcohol consumption for the last 7 years, is brought to the hospital emergency room with acute onset of seeing snakes all around him in the room, not recognizing family members, violent behavior and tremulousness for having missed the alcohol drink since 2 days, Examination reveals increased blood pressure, tremors, increased psychomotor activity, fearful affect, hallucinatory behavior, disorientation, impaired judgment and insight.

He is most likely to be suffering from:

A. Alcoholic hallucinosis.

B. Delirium tremens.

C. Wernicke encephalopathy.

D. Korsakoff's psychosis.

Ans. B

Q 203. A 45-year-old male with a history of alcohol dependence presents with confusion nystagmus and ataxia. Examination reveals 6th cranial nerve weakness. He is most likely to be suffering from:

A. Korsakoff's psychosis.

B. Wernicke encephalopathy.

C. De Clerambault syndrome.

D. Delirium tremens.

Ans. B

Q 204. A 25-year-old female presents with 2 year history of repetitive, irresistible thoughts of contamination with dirt associated with repetitive hand washing. She reports these thoughts to be her own and distressing; but is not able to overcome them along with medications. She is most likely to benefit from which of the following therapies:

A. Exposure and response prevention.

B. Systematic desensitization.

C. Assertiveness training.

D. Sensate focusing.

Ans. A

Q 205. An 18 year old boy came to the Psychiatry OPD with a complaint of feeling changed from inside. He described himself as feeling strange as if he is different from his normal self. He was very tense and anxious yet could not point out the precise change in him. This phenomena is best called as:

- A. Delusional mood.
- B. Depersonalization.
- C. Autochthonous delusion.
- D. Over valued idea.

Ans. B

Q 206. The major difference between typical and atypical antipsychotics is that:

- A. The latter cause minimal or no increase in prolactin.
- B. The former cause tardive dyskinesia.
- C. The former are available as parenteral preparations.
- D. The latter cause substantial sedation.

Q 207. Dry mouth during antidepressant therapy is caused by blockade of:

- A. Muscarinic acetylcholine receptors.
- B. Serotonergic receptors.
- C. Dopaminergic receptors.
- D. GABA receptors.

Q 208. All of the following are hallucinogens, except:

- A. LSD
- B. Phenylcyclidine.
- C. Mescaline.
- D. Methylphenidate.

Ans. D

Q 209. An 18 year old student complains of lack of interest in studies for last 6 months. He has frequent quarrels with his parents and has frequent headaches. The most appropriate clinical approach would be to:

- A. Leave him as normal adolescent problem.
- B. Rule out depression.
- C. Rule out migraine.
- D. Rule out an oppositional defiant disorder.

Ans. B

Q 210. Perseveration is:

- A. Persistent and inappropriate repetition of the same thoughts.
- B. When a patient feels very distressed about it.
- C. Characteristic of schizophrenia.
- D. Characteristic of obsessive compulsive disorder (OCD).

Ans. A

Q 211. One of the following usually differentiates hysterical symptoms from hypochondriacal symptoms:

- A. Symptoms do not normally reflect understandable physiological or pathological mechanism.
- B. Physical symptoms are prominent which are not explained by organic factors.
- C. Personality traits are significant.
- D. Symptoms run a chronic course.

Ans. A

Dermatology

Q 212. All of the following drugs are effective in the treatment of pityriasis versicolor

except:

- A. Selenium sulphide.
- B. Ketoconazole.
- C. Griseofulvin.
- D. Clotrimazole.

Ans. C

Q 213. A 36-year-old factory worker developed itchy, annular scaly plaques in both groins. Application of a corticosteroid ointment led to temporary relief but the plaques continued to extend at the periphery. The most likely diagnosis is:

- A. Erythema annulare centrifugum.
- B. Granuloma annulare.
- C. Annular lichen planus.
- D. Tinea cruris.

Ans. D

Q 214. A 16-year-old boy presented with asymptomatic, multiple, erythematous, annular lesions with a collarette of scales at the periphery of the lesions present on the trunk. The most likely diagnosis is:

- A. Pityriasis versicolor.
- B. Pityriasis alba.
- C. Pityriasis rosea.
- D. Pityriasis rubra pilaris.

Ans. C

Q 215. The only definite indication for giving systemic corticosteroids in pustular PSORIASIS is:

- A. Psoriatic erythroderma with pregnancy.
- B. PSORIASIS in a patient with alcoholic cirrhosis.
- C. Moderate arthritis.
- D. Extensive lesions.

Ans. D

Q 216. A 40-year-old woman presents with a 2 year history of erythematous papulopustular lesions on the convexities of the face. There is a background of erythema and telangiectasia. The most likely diagnosis in the patient is:

- A. Acne vulgaris.
- B. Rosacea.
- C. Systemic LUPUS erythematosus.
- D. Polymorphic light eruption.

Ans. B

Q 217. An 8-year-old boy from Bihar presents with a 6 months history of an illdefined, hypopigmented slightly atrophic macule on the face. The most likely diagnosis is:

- A. Pityriasis alba.
- B. Indeterminate leprosy.
- C. Morphoca.
- D. Calcium deficiency.

Ans. B

Q 218. A 27-year-old sexually active male develops a vesiculobullous lesion on the glans soon after taking tablet paracetamol for fever. The lesion healed with hyperpigmentation. The most likely diagnosis is:

- A. Behcet's syndrome.
- B. Herpes genitalis.
- C. Fixed drug eruption.

D. Pemphigus vulgaris.

Ans. C

Surgery

Q 219. According to the Glasgow coma scale (GCS) a verbal score of 1 indicates:

A. No response.

B. Inappropriate words.

C. Incomprehensible sounds.

D. Disoriented response.

Ans. A

Q 220. Abbey-Estlander flap is used in the reconstruction of:

A. Buccal mucosa.

B. Lip.

C. Tongue.

D. Palate.

Ans. B

Q 221. In which one of the following perineural invasion in head and neck cancer is most commonly seen?

A. Adenocarcinoma.

B. Adenoid cystic carcinoma.

C. Basal cell Adenoma.

D. Squamous cell carcinoma.

Ans. B

Q 222. In which one of the following conditions the sialography is contraindicated?

A. Ductal calculus.

B. Chronic parotitis.

C. Acute parotitis.

D. Recurrent sialadenitis.

Ans. C

Q 223. The most common site of leak in CSF rhinorrhoea is:

A. Sphenoid sinus.

B. Frontal sinus.

C. Cribriform plate.

D. Tegmen tympani.

Ans. C

Q 224. Which one of the following soft tissue sarcomas frequently metastasizes to lymph nodes?

A. Fibrosarcoma.

B. Osteosarcoma.

C. Embryonal rhabdomyosarcoma.

D. Alveolar soft part sarcoma.

Ans. C

Q 225. Lumbar sympathectomy is of value in the management of :

A. Intermittent claudication.

B. Distal ischaemia affecting the SKIN of the toes.

C. Arteriovenous fistula

D. Back pain.

Ans. B

Q 226. A blood stained discharge from the nipple indicates one of the following:

A. Breast abscess.

B. Fibroadenoma.

- C. Duct papilloma.
- D. Fat necrosis of breast.

Ans. C

Q 227. The earliest manifestation of increased intracranial pressure following head injury is:

- A. Ipsilateral papillary dilatation.
- B. Contralateral papillary dilatation.
- C. Altered mental status.
- D. Hemiparesis.

Ans. A

Q 228. In which of the following conditions splenectomy is not useful?

- A. Hereditary spherocytosis.
- B. Porphyria.
- C. Thalassemia.
- D. Sickle cell disease with large spleen .

Ans. None/B

Q 229. The following is ideal for the treatment with injection of sclerosing agents:

- A. External hemorrhoids.
- B. Internal hemorrhoids.
- C. Prolapsed hemorrhoids.
- D. Strangulated hemorrhoids.

Ans. B

Q 230. In which of the following locations, carcinoid tumor is most common?

- A. Esophagus.
- B. Stomach.
- C. Small bowel.
- D. Appendix.

Ans. C

Q 231. Pancreatitis, pituitary tumor and pheochromocytoma may be associated with:

- A. Medullary carcinoma of thyroid.
- B. Papillary carcinoma of thyroid.
- C. Anaplastic carcinoma of thyroid.
- D. Follicular carcinoma of thyroid.

Ans. A

Q 232. Gardner's syndrome is a rare hereditary disorder involving the colon. It is characterized by:

- A. Polyposis colon, cancer thyroid, SKIN tumours.
- B. Polyposis in jejunum, pituitary adenoma and SKIN tumours.
- C. Polyposis colon, osteomas, epidermal inclusion cysts and fibrous tumorus in the SKIN .
- D. Polyposis of gastrointestinal tract, cholangiocarcinoma and SKIN tumours.

Ans. C

Q 233. All of the following are true for patients of ulcerative colitis associated with primary sclerosing cholangitis (PSC), except:

- A. They may develop biliary cirrhosis.
- B. May have raised alkaline phosphatase.
- C. Increased risk of hilar cholangiocarcinoma.
- D. PSC reverts after a total colectomy.

Ans. D

Q 234. The most common complication seen in hiatus hernia is:

- A. Oesophagitis.
- B. Aspiration pneumonitis.
- C. Volvulus.
- D. Esophageal stricture.

Ans. A

Q 235. Patients of rectovaginal fistula should be initially treated with:

- A. Colostomy.
- B. Primary repair.
- C. Colporrhaphy.
- D. Anterior resection.

Ans. A

Q 236. Which of the following catheter materials is most suited for long-term use is?

- A. Latex.
- B. Silicone.
- C. Rubber.
- D. Polyurethane.

Ans. D

Q 237. Which of the following is the most troublesome source of bleeding during a radical retropubic prostatectomy?

- A. Dorsal venous complex.
- B. Inferior vesical pedicle.
- C. Superior vesical pedicle.
- D. Seminal vesicular artery.

Ans. A

Q 238. The most sensitive imaging modality for diagnosing ureteric stones in a patient with acute colic is:

- A. X-ray KUB region.
- B. Ultrasonogram.
- C. Non contrast CT scan of the abdomen.
- D. Contrast enhanced CT scan of the abdomen.

Ans. C

Q 239. Which one of the following is not used as a tumor marker in testicular tumors?

- A. AFP.
- B. LDH.
- C. HCG.
- D. CEA.

Ans. D

ORTHPAEDICS

Q 240. A young woman met with an accident and had mild quadriparesis. Her lateral X-ray cervical spine revealed C5-C6 FRACTURE dislocation. Which of the following is the best line of management?

- A. Immediate anterior decompression.
- B. Cervical traction followed by instrument fixation.
- C. Hard cervical collar and bed rest cervical laminectomy.
- D. Cervical laminectomy.

Ans. B

Q 241. Which one of the following is the investigation of choice for evaluation of suspected Perthes' disease?

- A. Plain X-ray.
- B. Ultrasonography (US).
- C. Computed tomography (CT).
- D. Magnetic resonance imaging (MRI).

Ans. D

Q 242. Neuronal degeneration is seen in all of the following except:

- A. Crush nerve injury.
- B. Fetal development.
- C. Senescence.
- D. Neuropraxia.

Ans. D

Q 243. In Klippel-Feil syndrome, the patient has all of the following clinical features except:

- A. Low hair line.
- B. Bilateral neck webbing.
- C. Bilateral shortness of sternomastoid muscles.
- D. Gross limitations of neck movements.

Ans. C

Q 244. The most common sequelae of tuberculous spondylitis in an adolescent is:

- A. Fibrous ankylosis.
- B. Bony ankylosis.
- C. Pathological dislocation.
- D. Chronic OSTEOMYELITIS .

Ans. B

Q 245. In radionuclide imaging the most useful radio- pharmaceutical for skeletal imaging is:

- A. Gallium 67 (^{67}Ga).
- B. Technetium-sulphur-colloid ($^{99\text{m}}\text{Tc-Sc}$).
- C. Technetium-99m ($^{99\text{m}}\text{Tc}$).
- D. Technetium-99m linked to methylene disphosphonate ($^{99\text{m}}\text{Tc-MDP}$).

Ans. D

Q 246. Heberden's arthropathy affects:

- A. Lumbar spine.
- B. Symmetrically large joints.
- C. Sacroiliac joints.
- D. Distal interphalangeal joints.

Ans. D

Q 247. Subtrochanteric fractures of femur can be treated by all of the following methods except:

- A. Skeletal traction on Thomas' splint.
- B. Smith Petersen nail.
- C. Condylar blade plate.
- D. Ender's nail.

Ans. B

Q 248. All of the following are true about FRACTURE of the atlas vertebra, except:

- A. Jefferson FRACTURE is the most common type.
- B. Quadriplegia is seen in 80% cases.
- C. Atlantooccipital fusion may sometimes be needed.
- D. CT scans should be done for diagnosis.

Ans. D

Q 249. A 30-year-old man had road traffic accident and sustained FRACTURE of femur. Two days later he developed sudden breathlessness. The most probable cause can be:

- A. Pneumonia.
- B. Congestive heart failure.
- C. Bronchial asthma.
- D. Fat embolism.

Ans. D

Q 250. A 45-year-old was given steroids after renal transplant. After 2 years he had difficulty in walking and pain in both hips. Which one of the following is most likely cause?

- A. Primary osteoarthritis.
- B. Avascular necrosis.
- C. Tuberculosis.
- D. Aluminum toxicity.

Ans. B

Q 251. All of the following areas are commonly involved sites in pelvic FRACTURE except:

- 1. Pubic rami.
- 2. Alae of ileum.
- 3. Acetabula.
- 4. Ischial tuberosities.

Ans. D

Anaesthesia

Q 252. The laryngeal mask airway used for securing the airway of a patient in all of the following conditions except:

- A. In a difficult intubation.
- B. In a cardiopulmonary resuscitation.
- C. In a child undergoing an elective/routine eye Surgery .
- D. In a patient with a large tumor in the oral cavity.

Ans. D

Q 253. The following are used for treatment of postoperative nausea and vomiting following squint Surgery in children except:

- A. Ketamine.
- B. Ondansetron.
- C. Propofol.
- D. Dexamethasone.

Ans. A

Q 254. Which one of the following anaesthetic agents causes a rise in the intracranial pressure:

- A. Sevoflurane.
- B. Thiopentone sodium.
- C. Lignocaine.
- D. Propofol.

Ans. A

Q 255. The following modes of ventilation may be used for weaning off patients from mechanical ventilation except:

- A. Controlled Mechanical ventilation (CMV).

- B. Synchronized intermittent mandatory ventilation (SIMV).
- C. Pressure support ventilation (PSV).
- D. Assist-control ventilation (ACV).

Ans. A

Q 256. A lower segment caesarean section (LSCS) can be carried out under all the following techniques Anaesthesia except:

- A. General Anaesthesia .
- B. Spinal Anaesthesia .
- C. Caudal Anaesthesia .
- D. Combined spinal epidural.

Ans. C

Q 257. The most appropriate circuit for ventilating a spontaneously breathing infant during Anaesthesia is:

- A. Jackson Rees modification of Ayres T piece.
- B. Mapleson A or Magill's circuit.
- C. Mapleson C or Waters to and fro canister.
- D. Bains circuit.

Ans. A

Q 258. All of the following are the disadvantages of anesthetic ether, except:

- A. Induction is slow.
- B. Irritant nature of ether increases salivary and bronchial secretions.
- C. Cautery can not be used.
- D. Affects blood pressure and is liable to produce arrhythmias.

Ans. D

Q 259. Which one of the following is the fastest acting inhalational agent?

- A. Halothane.
- B. Isoflurane.
- C. Ether.
- D. Sevoflurane.

Ans. D

Gynaecology AND OBSTETRICS

Q 260. Aspermia is the term used to describe:

- A. Absence of semen.
- B. Absence of sperm in ejaculate.
- C. Absence of sperm motility.
- D. Occurrence of abnormal sperm.

Ans. A

Q 261. Which of the following ultrasound marker is associated with greatest increased risk for trisomy 21 in fetus:

- A. Echogenic foci in heart .
- B. Hyperechogenic bowel.
- C. Choroid plexus cysts.
- D. Nuchal edema.

Ans. D

Q 262. The highest incidence of gestational trophoblastic disease is in:

- A. Australia .
- B. Asia.
- C. North America.
- D. Western Europe.

Ans. B

Q 263. The smallest diameter of the true pelvis is:

- A. Interspinous diameter.
- B. Diagonal conjugate.
- C. True conjugate.
- D. Intertuberous diameter.

Ans. A

Q 264. The most common pure germ cell tumor of the ovary is:

- A. Choriocarcinoma.
- B. Dysgerminoma.
- C. Embryonal cell tumor.
- D. Malignant teratoma.

Ans. B

Q 265. Infants of diabetic mother are likely to have the following cardiac anomaly:

- A. Coarctation of aorta.
- B. Fallot's tetralogy.
- C. Ebstein's anomaly.
- D. Transposition of great arteries.

Ans. D

Q 266. Which one of the following is the ideal contraceptive for a patient with heart disease:

- A. IUCD.
- B. Depo-provera.
- C. Diaphragm.
- D. Oral contraceptive pills.

Ans. C

Q 267. The karyotype of a patient with androgen insensitivity syndrome is:

- A. 46 XX.
- B. 46 XY.
- C. 47 XXY.
- D. 45 XO.

Ans. B

Q 268. The following drug is not helpful in the treatment of ectopic pregnancy:

- A. Methotrexate.
- B. Misoprostol.
- C. Actinomycin-D.
- D. RU 486.

Ans. B

Q 269. The best period of gestation to carry out chorion villous biopsy for prenatal diagnosis is:

- A. 8-10 weeks.
- B. 10-12 weeks
- C. 12-14 weeks.
- D. 14-16 weeks.

Ans. B

Q 270. Which one of the following biochemical parameters is the most sensitive to detect open spina bifida?

- A. Maternal serum alpha fetoprotein.
- B. Amniotic fluid alpha fetoprotein.
- C. Amniotic fluid acetyl cholinesterase.
- D. Amniotic fluid glucohexaminase.

Ans. C

Q 271. Risk of preterm delivery is increased if cervical length is:

- A. 2.5 cm.
- B. 3.0 cm.
- C. 3.5 cm.
- D. 4.0 cm.

Ans. A

Q 272. All are the risk factors associated with macrosomia except:

- A. Maternal obesity.
- B. Prolonged pregnancy.
- C. Previous large infant.
- D. Short stature.

Ans. D

Q 273. Which of the following statements is incorrect in relation to pregnant women with epilepsy?

- A. The rate of congenital malformation is increased in the offspring of women with epilepsy.
- B. Seizure frequency increases in approximately 70% of women.
- C. Breast feeding is safe with most anticonvulsants.
- D. Folic acid supplementation may reduce the risk of neural tube defect.

Ans. B

Q 274. All are the causes of intrauterine growth retardation except:

- A. Anemia.
- B. Pregnancy induced hypertension.
- C. Maternal heart disease.
- D. Gestational diabetes.

Ans. D

Q 275. Misoprostal has been found to be effective in all of the following except:

- A. Missed abortion.
- B. Induction of labour.
- C. Menorrhagia.
- D. Prevention of post-partum hemorrhage (PPH).

Ans. C

Q 276. All of the following appear to decrease hot flushes in menopausal women except:

- A. Androgens.
- B. Raloxifene.
- C. Isoflavones.
- D. Tibolone.

Ans. B

Q 277. In a case of dysgerminoma of ovary one of the following tumor markers is likely to be raised:

- A. Serum HCG.
- B. Serum alphafetoprotein.
- C. Serum lactic dehydrogenase.
- D. Serum inhibin.

Ans. C

Q 278. Use of one of the following vaccination is absolutely contraindicated in pregnancy:

- A. Hepatitis-B.

- B. Cholera.
- C. Rabies.
- D. Yellow fever.

Ans. B/D

Q 279. The most common cause of secondary amenorrhoea in India is:

- A. Endometrial tuberculosis.
- B. Premature ovarian failure.
- C. Polycystic ovarian syndrome.
- D. Sheehan's syndrome.

Ans. A

Ophthalmology

Q 280. In von Hippel-Lindau syndrome, the retinal vascular tumours are often associated with intracranial hemangioblastoma. Which one of the following regions is associated with such vascular abnormalities in this syndrome?

- A. Optic radiation.
- B. Optic tract.
- C. Cerebellum.
- D. Pulvinar.

Ans. C

Q 281. An 18 year old boy comes to the eye casualty with history of injury with a tennis ball. On examination there is no perforation but there is hyphaema. The most likely source of the blood is

- A. Iris vessels.
- B. Circulus iridis major.
- C. Circulus iridis minor.
- D. Short posterior ciliary vessels.

Ans. A

Q 282. A 25 year old male gives history of sudden painless loss of vision in one eye for the past 2 weeks. There is no history of trauma. On examination the anterior segment is normal but there is no fundal glow. Which one of the following is the most likely cause?

- A. Vitreous haemorrhage.
- B. Optic atrophy.
- C. Developmental cataract.
- D. Acute attack of angle closure glaucoma.

Ans. A

Q 283. The mother of a one and a half year old child gives history of a white reflex from one eye for the past 1 month. On computed tomography scan of the orbit there is calcification seen within the globe. The most likely diagnosis is:

- A. Congenital cataract.
- B. Retinoblastoma.
- C. Endophthalmitis.
- D. Coats' disease.

Ans. B

Q 284. Enlarged corneal nerves may be seen in all of the following except:

- A. Keratoconus.
- B. Herpes simplex keratitis.
- C. Leprosy.
- D. Neurofibromatosis.

Ans. B

Q 285. Under the WHO 'Vision 2020' programme, the 'SAFE' strategy is adopted for which of the following diseases?

A. Trachoma