

MCI 2003
SOLVED
QUESTIONS AND ANSWERS

ANATOMY

Q 1. The commonest variation in the arteries arising from the arch of aorta is:

- A. Absence of brachiocephalic trunk.
- B. Left vertebral artery arising from the arch.
- C. Left common carotid artery arising from brachiocephalic trunk.
- D. Presence of retroesophageal subclavian artery.

Ans. C

Q 2. The blood vessel related to the paraduodenal fossa is:

- A. Gonadal vein
- B. Superior mesenteric artery
- C. Portal vein
- D. Inferior mesenteric vein

Ans. D

Q 3. The nerve commonly damaged during McBurney's incision is:

- A. Subcostal
- B. Iliohypogastric
- C. 11th thoracic
- D. 10th thoracic

Ans. B

Q 4. The lumbar region of the vertebral column permits all the following movements, except:

- A. Flexion
- B. Extension
- C. Lateral flexion
- D. Rotation

Ans. D

Q 5. All of the following are examples of traction epiphysis, except:

- A. Mastoid process
- B. Tubercles of humerus
- C. Trochanter of femur
- D. Condyles of tibia

Ans. D

Q 6. All of the following statements are true for metaphysis of bone, except:

- A. It is the strongest part of the bone.
- B. It is the most vascular part of bone.
- C. Growth activity is maximized here.
- D. It is the region favouring hematogenous spread of infection.

Ans. A

Q 7. All of the following features can be observed after the injury to axillary nerve, except:

- A. Loss of rounded contour of shoulder.
- B. Loss of sensation along lateral side of upper arm.

- C. Loss of overhead abduction.
- D. Atrophy of deltoid muscle.

Ans. C

Q 8. All of the following muscles are grouped together as 'muscles of mastication', except:

- A. Buccinator
- B. Masseter
- C. Temporalis
- D. Pterygoids

Ans. A

Q 9. Referred pain from ureteric colic is felt in the groin due to involvement of the following nerve:

- A. Subcostal
- B. Iliohypogastric
- C. Ilioinguinal
- D. Genitofemoral

Ans. D

Q 10. The right coronary artery supplies all of the following parts of the conducting system in the heart, except:

- A. SA Node
- B. AV Node
- C. AV Bundle
- D. Right bundle branch

Ans. D

Q 11. The cells belonging to the following type of epithelium are provided with extra reserve of cell membrane:

- A. Transitional
- B. Stratified squamous
- C. Stratified cuboidal
- D. Stratified columnar

Ans. A

Q 12. Injury to radial nerve in lower part of spiral groove:

- A. Spares nerve supply to extensor carpi radialis longus
- B. Results in paralysis of anconeus muscle
- C. Leaves extension at elbow joint intact
- D. Weakens pronation movement

Ans. C

Q 13. A 30 year old man came to the outpatient department because he had suddenly developed double vision. On examination it was found that his right eye, when at rest, was turned medially. The most likely anatomical structures involved are:

- A. Medial rectus and superior division of oculomotor nerve
- B. Inferior oblique and inferior division of oculomotor nerve
- C. Lateral rectus and abducent nerve
- D. Superior rectus and trochlear nerve

Ans. C

Q 14. In a patient with a tumour in superior mediastinum compressing the superior vena cava, all the following veins would serve as alternate pathways for the blood to return to the right atrium, except:

- A. Lateral thoracic vein

- B. Internal thoracic vein
- C. Hemiazygos vein
- D. Vertebral venous plexus

Ans. B

Q 15. The middle cardiac vein is located at the:

- A. Anterior interventricular sulcus.
- B. Posterior interventricular sulcus.
- C. Posterior AV groove.
- D. Anterior AV groove.

Ans. B

Q 16. Which of the following statements is true about the autonomic nervous system?

- A. The sympathetic outflow from the CNS is through both the cranial nerves and the sympathetic chain.
- B. The parasympathetic outflow from the CNS is through cranial nerves only.
- C. The superior hypogastric plexus is located at the anterior aspect of the aortic bifurcation and fifth lumbar vertebra.
- D. The superior hypogastric plexus contains sympathetic fibers only.

Ans. C

PHYSIOLOGY

Q 17. An increase in which of the following parameters will shift the O₂ dissociation curve to the left:

- A. Temperature
- B. Partial pressure of CO₂
- C. 2,3 DPG concentration
- D. Oxygen affinity of haemoglobin

Ans. D

Q 18. A lesion of ventrolateral part of spinal cord will lead to loss (below the level of lesion) of:

- A. Pain sensation on the ipsilateral side
- B. Proprioception on the contralateral side
- C. Pain sensation on the contralateral side
- D. Proprioception on the ipsilateral side

Ans. C

Q 19. Two students, Vineet and Kamlesh were asked to demonstrate in dogs the role of sinus nerve in hypovolemic shock. Vineet severed the sinus nerve when the mean blood pressure (MBP) was 85 mm Hg and Kamlesh cut the sinus nerve when the mean blood pressure was 60 mm Hg. On cutting the sinus nerve:

- A. Vineet recorded an increase in MBP but Kamlesh recorded a decrease in MBP.
- B. Vineet recorded a decrease in MBP but Kamlesh recorded an increase in MBP.
- C. Both recorded an increase in MBP.
- D. Both recorded a decrease in MBP.

Ans. A

Q 20. As a part of space-research program, a physiologist was asked to investigate the effect of flight-induced stress on blood pressure. Accordingly the blood pressure of the cosmonauts were to be measured twice: once before the take-off, and once after the spacecraft entered the designated orbit around the earth. For a proper comparison, the preflight blood pressure should be recorded in:

- A. The lying down position.
- B. The sitting position.

- C. The standing position
 - D. Any position, as long as the post-flight recording is made in the same position.
- Ans. A

Q 21. The renal plasma flow (RPF) of a patient was to be estimated through the measurement of Para Amino Hippuric acid (PAH) clearance. The technician observed the procedure correctly but due to an error in the weighing inadvertently used thrice the recommended dose of PAH. The RPF estimated is likely to be:

- A. False-high
- B. False-low
- C. False-high or false-low depending on the GFR.
- D. Correct and is unaffected by the PAG overdose.

Ans. B

Q 22. The EEG record shown below is normally recordable during which stage of sleep ?

- A. Stage I.
- B. Stage II.
- C. Stage III.
- D. Stage IV.

Ans. B

Q 23. Figure below represents the pH of the digestive juice aspirated from the alimentary tract as a function of position along the alimentary tract during digestion of a meal:

- A. A typical value for Y2 is 9.0.
- B. A typical value for Y3 is 10.0.
- C. The segment C represents the pylorus.
- D. The digestive enzymes active in segment A are inactivated in segment B.

Ans. D

Q 24. Which of the following statements is true for excitatory postsynaptic potentials (EPSP):

- A. Are self propagating.
- B. Show all or none response.
- C. Are proportional to the amount of transmitter released by the presynaptic neuron.
- D. Are inhibitory at presynaptic terminal.

Ans. C

Q 25. Synaptic conduction is mostly orthodromic because:

- A. Dendrites cannot be depolarized.
- B. Once repolarized, an area cannot be depolarized.
- C. The strength of antidromic impulse is less.
- D. Chemical mediator is located only in the presynaptic terminal.

Ans. D

Q 26. The cell junctions allowing exchange of cytoplasmic molecules between the two cells are called:

- A. Gap junctions.
- B. Tight junctions.

- C. Anchoring junctions
- D. Focal junctions.

Ans. A

BIOCHEMISTRY

Q 27. The main enzyme responsible for activation of xenobiotics is:

- A. Cytochrome P-450
- B. Glutathione S-transferase
- C. NADPH cytochrome P-450-reductase
- D. Glucoronyl transferase

Ans. A

Q 28. The primary defect which leads to sickle cell anemia is:

- A. An abnormality in prophyrin part of hemo-globin.
- B. Replacement of glutamate by valine in HbA.
-chain of HbA.
- C. A nonsense mutation in the
-chain of HbA.
- D. Substitution of -chain of HbA.avaline by glutanmate in the

Ans. B

Q 29. Decreased glycolytic activity impairs oxygen transport by hemoglobin due to:

- A. Reduced energy production
- B. Decreased production of 2,3-biphosho-glycerate
- C. Reduced synthesis of hemoglobin
- D. Low level of oxygen

Ans. B

Q 30. The primary role of chaperones is to help in:

- A. Protein synthesis
- B. Protein degradation
- C. Protein denaturation
- D. Protein folding

Ans. D

Q 31. The conversion of an optically pure isomer (enantiomer) into a mixture of equal amounts of both dextro and levo form is called as:

- A. Polymerization
- B. Stereoisomerization
- C. Racemization
- D. Fractionation

Ans. C

Q 32. The protein rich in basic amino acids, which functions in the packaging of DNA in chromosomes, is:

- A. Histone
- B. Collagen
- C. Hyaluronic acid binding protein
- D. Fibrinogen

Ans. A

Q 33. An enzyme involved in the catabolism of fructose to pyruvate in the liver is:

- A. Glyceraldehyde-3-phosphate dehydrogenase
- B. Phosphoglucomutase
- C. Lactate dehydrogenase
- D. Glucokinase

Ans. A

-oxidation of odd-chain fatty acids produces:bQ 34.

- A. Succinyl CoA

- B. Propionyl CoA
- C. Acetyl CoA
- D. Malonyl CoA

Ans. B

Q 35. The buffering capacity of a buffer is maximum at pH equal to:

- A. 0.5 pKa
- B. pKa
- C. pKa+1
- D. 2pKa

Ans. B

Q 36. Which of the following is present intracellularly in muscle cells:

- A. Insulin
- B. Corticosteroid
- C. Epinephrine
- D. Glucagon

Ans. B

Q 37. Which of the following is not a post transcriptional modification of RNA?

- A. Splicing
- B. 5 capping
- C. polyadenylation
- D. Glycosylation

Ans. D

Q 38. Serum total lactate dehydrogenase level will NOT be raised in:

- A. Muscle crush injury
- B. Stroke
- C. Myocardial infarction
- D. Hemolysis

Ans. B

Q 39. Porphobilinogen in urine produces pink colour with:

- A. Fouchet's reagent.
- B. Benedict's reagent.
- C. Sodium nitropruside.
- D. Ehrlich's aldehyde reagent.

Ans. D

Q 40. The collagen triple helix structure is not found in:

- A. Cytoplasm.
- B. Golgi apparatus.
- C. Lumen of endoplasmic reticulum.
- D. Intracellular vesicles.

Ans. A

MICROBIOLOGY AND PARASITOLGY

Q 41. An anxious mother brought her 4 year old daughter to the pediatrician. The girl was passing loose bulky stools for the past 20 days. This was often associated with pain in abdomen. The pediatrician ordered the stool examination which showed the following organisms. Identify the organism:

- A. Entamoeba histolytica
- B. Giardia lamblia
- C. Cryptosporidium
- D. E. coli

Ans. B

Q 42. Heat labile instruments for use in surgical procedures can be best sterilized by:

- A. Absolute alcohol
- B. Ultra violet rays
- C. Chlorine releasing compounds
- D. Ethylene oxide gas

Ans. D

Q 43. Thirty-eight children consumed eatables procured from a picnic party. Twenty children developed abdominal cramps followed by vomiting and watery diarrhoea 6-10 hours after the party. The most likely etiology for the outbreak is:

- A. Rotavirus infection
- B. Enterotoxigenic E. coli infection
- C. Staphylococcal toxin
- D. Clostridium perfringens infection

Ans. C

Q 44. The following are true for Bordetella pertussis except:

- A. It is a strict human pathogen.
- B. It can be cultured from the patient during catarrhal stage.
- C. It leads to invasion of the respiratory mucosa.
- D. Infection can be prevented by a acellular vaccine.

Ans. C

Q 45. A chest physician performs bronchoscopy in the procedure room of the out patient department. To make the instrument safe for use in the next patient waiting outside, the most appropriate method to disinfect the endoscope is by:

- A. 70% alcohol for 5 min.
- B. 2% glutaraldehyde for 20 min.
- C. 2% formaldehyde for 10 min.
- D. 1% sodium hypochlorite for 15 min.

Ans. B

Q 46. Which of the following statements is true about rabies virus:

- A. It is a double stranded RNA virus.
- B. Contains a DNA-dependent RNA polymerase.
- C. RNA has a negative polarity
- D. Affects motor neurons.

Ans. C

Q 47. Which of the following statements is true about endemic typhus:

- A. Is caused by R. rickettsii.
- B. Is transmitted by the bite of fleas.
- C. Has no mammalian reservoir.
- D. Can be cultured in chemical defined culture medium.

Ans. B

Q 48. The organism most commonly causing genital filariasis in most parts of Bihar and eastern UP is:

- A. Wuchereria bancrofti.
- B. Brugia malayi.
- C. Onchocerca volvulus.
- D. Dirofilaria.

Ans. A

PATHOLOGY

Q 49. A married middle aged female gives history of repeated abortions for the past

5 years. The given below is conceptions prenatal karyogram.

This karyogram suggests the following:

- A. Klinefelter's syndrome
- B. Turner's syndrome
- C. Down's syndrome
- D. Patau's syndrome

Ans. C

Q 50. An increased incidence of cholangiocarcinoma is seen in all of the following, except:

- A. Hydatid cyst of liver
- B. Polycystic disease of liver
- C. Sclerosing cholangitis
- D. Liver flukes

Ans. A

Q 51. Strong correlation with colorectal cancer is seen in:

- A. Peutz-Jeghers polyp
- B. Familial polyposis coli
- C. Juvenile polyposis
- D. Hyperplastic polyp

Ans. B

Q 52. Which of the following is the most common location of hypertensive hemorrhage?

- A. Pons.
- B. Thalamus.
- C. Putamen/external capsule.
- D. Subcortical white matter.

Ans. C

Q 53. A 63-year old man presented with massive splenomegaly, lymphadenopathy and a total leucocyte count of 17000 per mm³. The flowcytometry showed CD19 positive, CD5 positive, CD23 negative, monoclonal B-cells with bright kappa positivity comprising 80% of the peripheral blood lymphoid cells. The most likely diagnosis is:

- A. Mantle cell lymphoma.
- B. Splenic lymphoma with villous lymphocytes.
- C. Follicular lymphoma.
- D. Hairy cell leukemia.

Ans. A

Q 54. The HLA class III region genes are important elements in:

- A. Transplant rejection phenomenon.
- B. Governing susceptibility to autoimmune diseases.
- C. Immune surveillance.
- D. Antigen presentation and elimination.

Ans. C

Q 55. All the statements about lactoferrin are true, except:

- A. It is present in secondary granules of neutrophil.
- B. It is present in exocrine secretions of body.
- C. It has great affinity for iron.
- D. It transports iron for erythropoiesis.

Ans. D

Q 56. Which of the following procedures are used as routine technique for karyotyping using light microscopy?

- A. C-banding
- B. G- banding
- C. Q-banding
- D. Brd V-banding

Ans. B

Q 57. Restriction fragment length polymorphism is used for:

- A. Analysis of chromosome structure.
- B. DNA estimation.
- C. Synthesis of nucleic acid.
- D. Detecting proteins in a cell.

Ans. A

PHARMACOLOGY

Q 58. Granulocytopenia, gingival hyperplasia and facial hirsutism are all possible side effects of one of the following anticonvulsant drugs:

- A. Phenytoin
- B. Valproate
- C. Carbamazepine
- D. Phenobarbitone

Ans. A

Q 59. Bacitracin acts on:

- A. Cell wall
- B. Cell membrane
- C. Nucleic acid
- D. Ribosomes

Ans. A

Q 60. All of the following drugs act on cell membrane, except:

- A. Nystatin
- B. Griseofulvin
- C. Amphotericin B
- D. Polymixin B

Ans. B

Q 61. All of the following statements regarding bioavailability of a drug are true except:

- A. It is the proportion (fraction) of unchanged drug that reaches the systemic circulation.
- B. Bioavailability of an orally administered drug can be calculated by comparing) after oral and intravenous (IV) administration.µthe area under curve (O-
- C. Low oral bioavailability always and necessarily mean poor absorption.
- D. Bioavailability can be determined from plasma concentration or urinary excretion data.

Ans. C

Q 62. The extent to which ionization of a drug takes place is dependent upon pKa of the drug and the pH of the solution in which the drug is dissolved. Which of the following statements is not correct:

- A. pKa of a drug is the pH at which the drug is 50% ionized.
- B. Small changes of pH near the pKa of a weak acidic drug will not affect its degree of ionization.
- C. Knowledge of pKa of a drug is useful in predicting its behaviour in various body fluids.
- D. Phenobarbitone with a pKa of 7.2 is largely ionized at acid pH and will be about

40% non-ionised in plasma.

Ans. B

Q 63. Presence of food might be expected to interfere with drug absorption by slowing gastric emptying, or by altering the degree of ionisation of the drug in the stomach. Which of the following statement is not correct example:

- A. Absorption of digoxin is delayed by the presence of food.
- B. Concurrent food intake may severely reduce the rate of absorption of phenytoin.
- C. Presence of food enhances the absorption of hydrochlorothiazide.
- D. Antimalarial drug halofantrine is more extensively absorbed if taken with food.

Ans. B

Q 64. Bosentan is a:

- A. Serotonin uptake inhibitor.
- B. Endothelin receptor antagonist.
- C. Leukotriene modifier.
- D. Calcium sensitizer.

Ans. B

FORENSIC MEDICINE

Q 65. Mummification refers to:

- A. Hardening of muscles after death
- B. Colliquative putrefaction
- C. Saponification of subcutaneous fat
- D. Dessication of a dead body

Ans. D

Q 66. A patient has been allegedly bitten by cobra snake. The venom in such a bite would be:

- A. Musculotoxic
- B. Vasculotoxic
- C. Cardiotoxic
- D. Neurotoxic

Ans. D

Q 67. All the following are related to legal responsibility of an insane person except:

- A. Mc Naughten's rule
- B. Durham's rule
- C. Curren's rule
- D. Rule of nine

Ans. D

Q 68. In a suspected case of death due to poisoning where cadaveric rigidity is lasting longer than usual, it may be a case of poisoning due to:

- A. Lead
- B. Arsenic
- C. Mercury
- D. Copper

Ans. B

Q 69. Blackening and tattooing of skin and clothing can be best demonstrated by:

- A. Luminol spray.
- B. Infrared photography.
- C. Ultraviolet light.
- D. Magnifying lens.

Ans. B

Q 70. Postmortem lividity is unlikely to develop in a case of:

- A. Drowning in well.
- B. Drowning in a fast flowing river.
- C. Postmortem submersion.
- D. Drowning in chlorinated swimming pool.

Ans. B

Q 71. The following situations are associated with rise of temperature after death except :

- A. Burns.
- B. Heat stroke.
- C. Pontine hemorrhage.
- D. Septicemia.

Ans. A

Q 72. In prenatal diagnostic technique Act 1994 which one of the following is not a ground for carrying out prenatal test ?

- A. Pregnant women above 35 years of age.
- B. History of two or more spontaneous abortion or fetal loss.
- C. When fetal heart rate is 160 per min at fifth and 120 per min at ninth month.
- D. History of exposure to potentially teratogenic drugs.

Ans. C

Q 73. Perjury means giving willful false evidence by a witness while under oath, the witness is liable to be prosecuted for perjury and the imprisonment may extend to seven years. This falls under which section of IPC?

- A. 190 of Indian Penal Code.
- B. 191 of Indian Penal Code.
- C. 192 of Indian Penal Code
- D. 193 of Indian Penal code.

Ans. D

Q 74. 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

PREVENTIVE AND SOCIAL MEDICINE

Q 75. The parameters of sensitivity and specificity are used for assessing:

- A. Criterion validity
- B. Construct validity
- C. Discriminant validity
- D. Content validity

Ans. A

Q 76. Chi-square test is used to measure the degree of:

- A. Causal relationship between exposure and effect.
- B. Association between two variables.
- C. Correlation between two variables.
- D. Agreement between two observations.

Ans. B

Q 77. Elements of primary health care include all of the following except:

- A. Adequate supply of safe water and basic sanitation.
- B. Providing essential drugs.
- C. Sound referral system.

D. Health education.

Ans. C

Q 78. For the calculation of positive predictive value of a screening test, the denominator is comprised of:

- A. True positive + False negative
- B. False positive + True negative
- C. True positive + False positive
- D. True positive + True negative

Ans. C

Q 79. Elemental iron and folic acid contents of pediatric iron-folic acid tablets supplied under Rural Child Health (RCH) program are:

- A. 20 mg iron & 100 micrograms folic acid.
- B. 40 mg iron & 100 micrograms folic acid.
- C. 40 mg iron & 50 micrograms folic acid.
- D. 60 mg iron & 100 micrograms folic acid.

Ans. A

Q 80. In the management of leprosy, lepromin test is most useful for:

- A. Herd immunity
- B. Prognosis
- C. Treatment
- D. Epidemiological investigations

Ans. B

Q 81. A measure of location which divides the distribution in the ratio of 3:1 is:

- A. Median
- B. First quartile
- C. Third quartile
- D. Mode

Ans. C

Q 82. The following statements about meningococcal meningitis are true, except:

- A. The source of infection is mainly clinical cases.
- B. The disease is more common in dry and cold months of the year.
- C. Chemoprophylaxis of close contacts of cases is recommended.
- D. The vaccine is not effective in children below 2 years of age.

Ans. A

Q 83. The Protein Efficiency Ratio (PER) is defined as:

- A. The gain in weight of young animals per unit weight of protein-consumed.
- B. The product of digestibility coefficient and biological value.
- C. The percentage of protein absorbed into the blood.
- D. The percentage of nitrogen absorbed from the protein absorbed from the diet.

Ans. A

Q 84. The Vitamin A supplement administered in "Prevention of nutritional blindness in children programme" contain:

- A. 25,000 i.u./ml
- B. 1 lakh i.u./ml
- C. 3 lakh i.u./ml
- D. 5 lakh i.u./ml

Ans. B

Q 85. A 5 year old boy passed 18 loose stools in last 24 hours and vomited twice in

last 4 hours. He is irritable but drinking fluids. The optimal therapy for this child is:

- A. Intravenous fluids
- B. Oral rehydration therapy
- C. Intravenous fluid initially for 4 hours followed by oral fluids.
- D. Plain water add libitum.

Ans. B

Q 86. Study this formula carefully:

This denotes:

- A. Sensitivity.
- B. Specificity.
- C. Positive Predictive value.
- D. Negative Predictive value.

Ans. A

Q 87. The 'P' value of a randomized controlled trial comparing operation A (new procedure) and operation B (Gold standard is 0.04). From this, we conclude that:

- A. Type II error is small and we can accept the findings of the study.
- B. The probability of false negative conclusion that operation A is better than operation B, when in truth it is not, is 4%.
- C. The power of study to detect a difference between operation A and B is 96%.
- D. The probability of a false positive conclusion that operation A is better than operation B, when in truth it is not, is 4%.

Ans. D

Q 88. The commonest cause of low vision in India is:

- A. Uncorrected refractive error
- B. Cataract.
- C. Glaucoma
- D. Squint.

Ans. A

Q 89. Most important epidemiological tool used for assessing disability in children is:

- A. Activities of Daily Living (ADL) scale.
- B. Wing's Handicaps, Behaviour and Skills (HBS) Schedule.
- C. Binet and Simon IQ tests.
- D. Physical Quality of Life Index (PQLI).

Ans. B

Q 90. Scope of family planning services include all of the following except:

- A. Screening for cervical cancer.
- B. Providing services for unmarried mothers.
- C. Screening for HIV infection.
- D. Providing adoption services.

Ans. C

Q 91. Class II exposure in animal bites includes the following:

- A. Scratches without oozing of blood.
- B. Licks on a fresh wound.
- C. Scratch with oozing of blood on palm.
- D. Bites from wild animals.

Ans. B

Q 92. Elemental iron and folic acid contents of iron and folic acid adult tablets supplied under the "National Programme for Anaemia Prophylaxis" are:

- A. 60 mg of elemental iron and 250 microgram of folic acid.
- B. 100 mg of elemental iron and 500 micrograms of folic acid.
- C. 20 mg of elemental iron and 750 micrograms of folic acid.
- D. 200 mg of elemental iron and 1000 micro-grams of folic acid.

Ans. B

Q 93. Denominator while calculating the secondary attack rate includes:

- A. All the people living in next fifty houses.
- B. All the close contacts.
- C. All susceptibles amongst close contact.
- D. All susceptibles in the whole village.

Ans. C

Q 94. The response which is graded by an observer on an agree or disagree continuum is based on:

- A. Visual analog scale.
- B. Guttman scale.
- C. Likert scale.
- D. Adjectival scale.

Ans. C

Q 95. For calculation of sample size for a prevalence study all of the following are necessary except:

- A. Prevalence of disease in population.
- B. Power of the study.
- C. Significance level.
- D. Desired precision.

Ans. D

Q 96. Leprosy is considered a public health problem if the prevalence of leprosy is more than:

- A. 1 per 10,000
- B. 2 per 10,000
- C. 5 per 10,000
- D. 10 per 10,000

Ans. A

Q 97. For controlling an outbreak of cholera, all of the following measures are recommended except:

- A. Mass chemoprophylaxis.
- B. Proper disposal of excreta.
- C. Chlorination of water.
- D. Early detection and management of cases.

Ans. A

Q 98. A child aged 24 months was brought to the Primary Health Centre with complaints of cough and fever for the past 2 days. On examination, the child weighed 11 kg., respiratory rate was 38 per minute, chest indrawing was present. The most appropriate line of management for this patient is?

- A. Classify as pneumonia and refer urgently to secondary level hospital.
- B. Classify as pneumonia, start antibiotics and advise to report after 2 days.
- C. Classify as severe pneumonia, start antibiotics and refer urgently.
- D. Classify as severe pneumonia and refer urgently.

Ans. C

MEDICINE

Q 99. The syndromic management of urethral discharge includes treatment of:

- A. Neisseria gonorrhoeae and herpes genitalis.
- B. Chlamydia trachomatis and herpes genitalis.
- C. Neisseria gonorrhoeae and Chlamydia trachomatis.
- D. Syphilis and chancroid.

Ans. C

Q 100. A 56 year old man presents in the casualty with severe chest pain and difficulty in breathing. His ECG was taken immediately. The above ECG suggest the following diagnosis:

- A. Ventricular fibrillation
- B. Acute pulmonary embolism
- C. Second degree heart block
- D. Atrial fibrillation

Ans. B

Q 101. All of the following infections are often associated with acute intravascular hemolysis except:

- A. Clostridium tetani
- B. Bartonella bacilliformis
- C. Plasmodium falciparum
- D. Babesia microti

Ans. A

Q 102. All of the following are the electrocardiographic features of severe hyperkalemia except:

- A. Peaked T waves
- B. Presence of U waves
- C. Sine wave pattern
- D. Loss of P waves

Ans. B

Q 103. The correct sequence of cell cycle is:

- A. G₀ - G₁ - S - G₂ - M
- B. G₀ - G₁ - G₂ - S - M
- C. G₀ - M - G₂ - S - G₁
- D. G₀ - G₁ - S - M - G₂

Ans. A

Q 104. Commonest cause of sporadic encephalitis is:

- A. Japanese B Virus
- B. Herpes Simplex Virus
- C. Human Immunodeficiency Virus
- D. Rubeola Virus

Ans. B

Q 105. Raised serum level of lipoprotein - (a) is a predictor of:

- A. Cirrhosis of liver
- B. Rheumatic arthritis
- C. Atherosclerosis
- D. Cervical cancer

Ans. C

Q 106. Haemorrhage secondary to heparin administration can be best corrected by administration of:

- A. Vitamin K
- B. Whole blood

- C. Protamine
- D. Ascorbic acid

Ans. C

Q 107. Which one of the following conditions may lead to exudative pleural effusion:

- A. Cirrhosis
- B. Nephrotic syndrome
- C. Congestive heart failure
- D. Bronchogenic carcinoma

Ans. D

Q 108. A 60 year old man is diagnosed to be suffering from Legionnaire's disease after he returns home from attending a convention. He could have acquired it:

- A. From a person suffering from the infection while travelling in the aeroplane.
- B. From a chronic carrier in the convention center.
- C. From inhalation of the aerosol in the air-conditioned room at convention center.
- D. By sharing an infected towel with a fellow delegate at the convention.

Ans. C

Q 109. In a post-operative intensive care unit, five patients developed post-operative wound infection on the same day. The best method to prevent cross infection occurring in other patients in the same ward is to:

- A. Give antibiotics to all other patients in the ward.
- B. Fumigate the ward.
- C. Disinfect the ward with sodium hypochlorite.
- D. Practice proper hand washing.

Ans. D

Q 110. The earliest immunoglobulin to be synthesized by the fetus is:

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

Ans. D

Q 111. The following are true regarding Lyme's disease, except:

- A. It is transmitted by Ixodes tick.
- B. Erythema chronicum migrans may be a clinical feature.
- C. Borrelia recurrentis is the aetiological agent.
- D. Rodents act as natural hosts.

Ans. C

Q 112. A couple, with a family history of beta thalassemia major in a distant relative, has come for counselling. The husband has HbA2 of 4.8% and the wife has HbA2 of 2.3%. The risk of having a child with beta thalassemia major is:

- A. 50%
- B. 25%
- C. 5%
- D. 0%

Ans. D

Q 113. A 2 month old baby with acute icteric viral hepatitis like illness slips into encephalopathy after 48 hours. The mother is a known hepatitis B carrier. Mother's hepatitis B virus serological profile is most likely to be:

- A. HBsAg positive only
- B. HBsAg and HBeAg positive
- C. HBsAg and HBe antibody positive

D. HBV DNA positive

Ans. C

Q 114. A 7 year old girl from Bihar presented with three episodes of massive hematemesis and melena. There is no history of jaundice. On examination, she had a large spleen, non-palpable liver and mild ascites. Portal vein was not visualised on ultrasonography. Liver function tests were normal and endoscopy revealed esophageal varices. The most likely diagnosis is:

- A. Kala azar with portal hypertension
- B. Portal hypertension of unknown etiology
- C. Chronic liver disease with portal hypertension
- D. Portal hypertension due to extrahepatic obstruction.

Ans. D

Q 115. A 40 year old male had undergone splenectomy 20 years ago. Peripheral blood smear examination would show the presence of:

- A. Dohle bodies
- B. Hypersegmented neutrophils
- C. Spherocytes
- D. Howell-Jolly bodies

Ans. D

Q 116. Which of the heart valve is most likely to be involved by infective endocarditis following a septic abortion?

- A. Aortic valve
- B. Tricuspid valve
- C. Pulmonary valve
- D. Mitral valve

Ans. B

Q 117. Central nervous system manifestations in chronic renal failure are a result of all of the following, except:

- A. Hyperosmolarity
- B. Hypocalcemia
- C. Acidosis
- D. Hyponatremia

Ans. A

Q 118. Medullary carcinoma of the thyroid is associated with which of the following syndrome:

- A. MEN I
- B. MEN II
- C. Fraumeni syndrome
- D. Hashimoto's syndrome

Ans. B

Q 119. Which of the following statements represent most correct interpretation from the ECG waveform given below:

- A. X-originated from an atrial ectopic focus.
- B. X reset the cardiac rhythm.
- C. Both heart sounds would have been present at X beat.
- D. The path of spread of excitation was normal.

Ans. B

Q 120. A 60 year old male presented to the emergency with breathlessness, facial swelling and dilated veins on the chest wall. The most common cause is:

- A. Thymoma.
- B. Lung cancer.
- C. Hodgkin's lymphoma.
- D. Superior vena caval obstruction.

Ans. B

Q 121. All of the following conditions may predispose to pulmonary embolism except:

- A. Protein S deficiency.
- B. Malignancy.
- C. Obesity.
- D. Progesterone therapy.

Ans. D

Q 122. An early systolic murmur may be caused by all of the following except:

- A. Small ventricular septal defect.
- B. Papillary muscle dysfunction.
- C. Tricuspid regurgitation.
- D. Aortic stenosis.

Ans. D

Q 123. Troponin-T is preferable to CPK-MB in the diagnosis of acute myocardial infarction (MI) in all of the following situations except:

- A. Bedside diagnosis of MI.
- B. Postoperatively (after CABG).
- C. Reinfarction after 4 days.
- D. Small infarcts.

Ans. C

Q 124. The most common cause of tricuspid regurgitation is secondary to:

- A. Rheumatic heart disease.
- B. Dilatation of right ventricle.
- C. Coronary artery disease.
- D. Endocarditis due to intravenous drug abuse.

Ans. B

Q 125. Absence seizures are characterized on EEG by:

- A. 3 Hz spike & wave
- B. 1-2 Hz spike & wave.
- C. Generalized polyspikes.
- D. Hypsarrythmia.

Ans. A

Q 126. All of the following are associated with low C3 levels except:

- A. Post streptococcal glomerulonephritis.
- B. Membrano-proliferative glomerulonephritis.
- C. Goodpasture's disease.
- D. Systemic lupus erythematosus.

Ans. C

Q 127. Normal anion gap metabolic acidosis is caused by:

- A. Cholera.
- B. Starvation.
- C. Ethylene glycol poisoning.
- D. Lactic acidosis.

Ans. A

Q 128. Diagnostic features of allergic broncho-pulmonary aspergillosis (ABPA) include all of the following except:

- A. Changing pulmonary infiltrates.
- B. Peripheral eosinophilia.
- C. Serum precipitins against *Aspergillus fumigatus*.
- D. Occurrence in patients with old cavitory lesions.

Ans. D

Q 129. The syndrome of inappropriate antidiuretic hormone is characterized by the following:

- A. Hyponatremia and urine sodium excretion > 20 mEq/l.
- B. Hypernatremia and urine sodium excretion > 20 mEq/l.
- C. Hyponatremia and hyperkalemia.
- D. Hypernatremia and hypokalemia.

Ans. A

Q 130. All of the following heart sounds occur shortly after S2 except:

- A. Opening snap.
- B. Pericardial knock.
- C. Ejection click.
- D. Tumor plop.

Ans. C

Q 131. Pulmonary hypertension may occur in all of the following conditions except:

- A. Toxic oil syndrome.
- B. Progressive systemic sclerosis.
- C. Sickle cell anaemia.
- D. Argemone mexicana poisoning.

Ans. D

Q 132. Causes of metabolic alkalosis include all the following, except:

- A. Mineralocorticoid deficiency.
- B. Bartter's syndrome.
- C. Thiazide diuretic therapy.
- D. Recurrent vomiting.

Ans. A

Q 133. The most frequent cause of recurrent genital ulceration in a sexually active male is:

- A. Herpes genitalis.
- B. Aphthous ulcer.
- C. Syphilis.
- D. Chancroid.

Ans. A

Q 134. The most effective drug against *M. leprae* is:

- A. Dapsone.
- B. Rifampicin.
- C. Clofazimine.
- D. Prothionamide.

Ans. B

Q 135. A 30-year old HIV positive patient presents with fever, dyspnoea and non-productive cough, patient is cyanosed. His chest X-ray reveals bilateral, symmetrical interstitial infiltrates. The most likely diagnosis is:

- A. Tuberculosis.
- B. Cryptococcosis.
- C. *Pneumocystis carinii* pneumonia.
- D. Toxoplasmosis.

Ans. C

Q 136. Extensive pleural thickening and calcification especially involving the diaphragmatic pleura are classical features of:

- A. Coal worker's pneumoconiosis.
- B. Asbestosis.
- C. Silicosis.
- D. Siderosis.

Ans. B

Q 137. Commonest presentation of neurocysticercosis is:

- A. Seizures.
- B. Focal neurological deficits.
- C. Dementia
- D. Radiculopathy.

Ans. A

Q 138. A 55-year old man who has been on bed rest for the past 10 days, complains of breathlessness and chest pain. The chest X-ray is normal. The next investigation should be:

- A. Lung ventilation-perfusion scan.
- B. Pulmonary arteriography.
- C. Pulmonary venous angiography.
- D. Echocardiography.

Ans. B

Q 139. A 60-year old man with diabetes mellitus presents with painless, swollen right ankle joint. Radiograph of the ankle shows destroyed joint with large number of loose bodies. The most probable diagnosis is:

- A. Charcot's joint
- B. Clutton's joint
- C. Osteoarthritis.
- D. Rheumatoid arthritis.

Ans. A

Q 140. All of the following statements regarding the ECG in acute pericarditis are true except:

- A. T wave inversion develop before ST elevations return to baseline.
- B. Global ST segment elevation is seen in early pericarditis.
- C. Sinus tachycardia is a common finding.
- D. PR segment depression is present in majority of patients.

Ans. A

Q 141. Type IV hypersensitivity to Mycobacterium tuberculosis antigen may manifest as:

- A. Iridocyclitis.
- B. Polyarteritis nodosa.
- C. Phlyctenular conjunctivitis.
- D. Giant cell arteritis.

Ans. C

Q 142. The blood gas parameters: pH 7.58, pCO₂ 23 mmHg, PO₂ 300 mmHg and oxygen saturation 60% are most consistent with:

- A. Carbon monoxide poisoning.
- B. Ventilatory malfunction.
- C. Voluntary hyperventilation.
- D. Methyl alcohol poisoning.

Ans. A

Q 143. Most suitable radioisotope of iodine for treating hyperthyroidism is:

- A. I123
- B. I125
- C. I131
- D. I132

Ans. C

Q 144. In the presence of vasopressin the greatest fraction of filtered water is reabsorbed in which part of the nephron:

- A. Proximal tubule.
- B. Distal tubule.
- C. Loop of Henle.
- D. Collecting duct.

Ans. A

Q 145. All of the following statements are correct about potassium balance, except:

- A. Most of potassium is intracellular.
- B. Three quarter of the total body potassium is found in skeletal muscle.
- C. Intracellular potassium is released into extra-cellular space in response to severe injury.
- D. Acidosis leads to movement of potassium from extracellular to intracellular fluid compartment.

Ans. D

Q 146. Hypocalcemia is characterized by all of the following features except:

- A. Numbness and tingling of circumoral region.
- B. Hyperactive tendon reflexes.
- C. Shortening of Q-T interval in ECG.
- D. Carpopedal spasm.

Ans. C

Q 147. Which of the following is not true about Berger's disease?

- A. The pathologic changes are proliferation and usually confined to mesangial cells; usually focal and segmental.
- B. Hematuria may be gross or microscopic.
- C. On immunofluorescence deposits contain both IgA and IgG.
- D. Absence of associated proteinuria is pathognomonic.

Ans. D

Q 148. All of the following are risk factors for deep vein thrombosis (DVT) except:

- A. Duration of surgery more than thirty minutes.
- B. Obesity.
- C. Age less than forty years.
- D. Use of the oestrogen-progesterone contraceptive pills.

Ans. C

Q 149. A labourer involved with repair-work of sewers was admitted with fever, jaundice and renal failure. The most appropriate test to diagnose the infection in this patient is:

- A. Weil Felix test.
- B. Paul Bunnell test.
- C. Microscopic agglutination test.
- D. Micro immunofluorescence test.

Ans. C

Q 150. Memory T cells can be identified by using the following marker:

- A. CD45 RA.
- B. CD45 RB.
- C. CD45 RC.
- D. CD45 RO.

Ans. D

Q 151. All of the following statements about NK cells are true, except:

- A. They are derived from large granular cells.
- B. They comprise about 5% of human peripheral lymphoid cells.
- C. They are MHC restricted cytotoxic cells.
- D. They express IgG Fc receptors.

Ans. C

Q 152. Which of the following increases the susceptibility to coronary artery disease:

- A. Type V hyperlipoproteinaemia.
- B. Von Willebrandt's disease.
- C. Nephrotic syndrome.
- D. Systemic lupus erythematosus.

Ans. D

Q 153. MHC class III genes encode:

- A. Complement component C3.
- B. Tumor necrosis factor.
- C. Interleukin 2.
- D. Beta 2 microglobulin.

Ans. B

Q 154. Gluten sensitive enteropathy is most strongly associated with:

- A. HLA-DQ2.
- B. HLA-DR4.
- C. HLA-DQ3.
- D. Blood group 'B'.

Ans. A

Q 155. Most sensitive and specific test for diagnosis of iron deficiency is:

- A. Serum iron levels.
- B. Serum ferritin levels.
- C. Serum transferrin receptor population.
- D. Transferrin saturation.

Ans. B

Q 156. All of the following are poor prognostic factors for acute myeloid leukemias, except:

- A. Age more than 60 years.
- B. Leucocyte count more than 1,00,000/ μ l.
- C. Secondary leukemias.
- D. Presence of t(8;21).

Ans. D

Q 157. Leukoerythroblastic picture may be seen in all of the following, except:

- A. Myelofibrosis.
- B. Metastatic carcinoma.
- C. Gaucher's disease.
- D. Thalassemia.

Ans. D

Q 158. Cardiac or central nervous system toxicity may result when standard lidocaine doses are administered to patients with circulatory failure. This may be due

to the following reason:

- A. Lidocaine concentration are initially higher in relatively well perfused tissues such as brain and heart.
- B. Histamine receptors in brain and heart gets suddenly activated in circulatory failure.
- C. There is a sudden out-bursts of release of adrenaline, noradrenaline and dopamine in brain and heart.
- D. Lidocaine is converted into a toxic metabolite due to its longer stay in liver.

Ans. A

Q 159. All of the following are useful intravenous therapy for hypertensive emergencies, except:

- A. Fenoldopam.
- B. Urapidil.
- C. Enalapril.
- D. Nifedipine.

Ans. D

Q 160. Cardiac output measured by thermodilution technique is unreliable in all of the following situations except:

- A. Ventricular septal defect.
- B. Tricuspid regurgitation.
- C. Low cardiac output.
- D. Pulmonary regurgitation.

Ans. A

Q 161. Exercise testing is absolutely contraindicated in which one of the following:

- A. One week following myocardial infarction.
- B. Unstable angina.
- C. Aortic stenosis.
- D. Peripheral vascular disease.

Ans. B

Q 162. A nineteen year old female with short stature, wide spread nipples and primary amenorrhoea most likely has a karyotype of:

- A. 47, XX+18.
- B. 46, XXY.
- C. 47, XXY.
- D. 45 X.

Ans. D

Q 163. Osteomalacia is associated with:

- A. Decrease in osteoid volume.
- B. Decrease in osteoid surface.
- C. Increase in osteoid maturation time.
- D. Increase in mineral apposition rate.

Ans. C

Q 164. A 23-year old woman has experienced episodes of myalgias, pleural effusion, pericarditis and arthralgias without joint deformity over course of several years. The best laboratory screening test to diagnose her disease would be:

- A. CD4 lymphocyte count.
- B. Erythrocyte sedimentation rate.
- C. Antinuclear antibody.
- D. Assay for thyroid hormones.

Ans. C

Q 165. A 5-year old boy is detected to be HBsAg positive on two separate occasions during a screening program for hepatitis B. He is otherwise asymptomatic. Child was given 3 doses of recombinant hepatitis B vaccine at the age of one year. His mother was treated for chronic hepatitis B infection around the same time. The next relevant step for further investigating the child would be to:

- A. Obtain HBe Ag and anti-HBe antibodies.
- B. Obtain anti-HBs levels.
- C. Repeat HBsAg.
- D. Repeat another course of hepatitis B vaccine.

Ans. A

Q 166. Which of the following hepatitis viruses have significant perinatal transmission:

- A. Hepatitis E virus.
- B. Hepatitis C virus
- C. Hepatitis B virus.
- D. Hepatitis A virus.

Ans. C

Q 167. The diffusion capacity of lung (DLCO) is decreased in all of the following conditions except:

- A. Interstitial lung disease.
- B. Goodpasture's syndrome.
- C. Emphysema.
- D. Primary pulmonary hypertension.

Ans. B

Q 168. Osler's nodes are typically seen in which one of the following:

- A. Chronic candida endocarditis.
- B. Acute staphylococcal endocarditis.
- C. Pseudomonas endocarditis.
- D. Libman sack's endocarditis.

Ans. B

Q 169. Thiamine deficiency is known to occur in all of the following except:

- A. Food Faddist.
- B. Homocystinemia
- C. Chronic alcoholic
- D. Chronic heart failure patients on diuretics.

Ans. B

Q 170. Radiation exposure during infancy has been linked to which one of the following carcinoma:

- A. Breast.
- B. Melanoma.
- C. Thyroid.
- D. Lung.

Ans. C

Q 171. Recurrent ischemic events following thrombolysis has been pathophysiologically linked to which of the following factors:

- A. Antibodies to thrombolytic agents.
- B. Fibrinopeptide A.
- C. Lipoprotein (a) [Lp(a)].
- D. Triglycerides.

Ans. A

Q 172. Which of the following is pan-T lymphocyte marker?

- A. CD2.
- B. CD3.
- C. CD19.
- D. CD25

Ans. B

Q 173. Following are the features of corticospinal involvement except:

- A. Cog-wheel rigidity.
- B. Spasticity.
- C. Plantar extensor response.
- D. Exaggerated deep tendon reflexes.

Ans. A

Q 174. Positive feedback action of estrogen for inducing luteinizing hormone surge is associated with one of the following steroid hormone ratios in peripheral circulation:

- A. High estrogen : low progesterone.
- B. Low estrogen : high progesterone.
- C. Low estrogen : low progesterone
- D. High estrogen : high progesterone.

Ans. A

Q 175. A post-operative cardiac surgical patient developed sudden hypotension, raised central venous pressure, pulsus paradoxus at the 4th post operative hour.

The most probable diagnosis is:

- A. Excessive mediastinal bleeding.
- B. Ventricular dysfunction.
- C. Congestive cardiac failure.
- D. Cardiac tamponade.

Ans. D

PEDIATRICS

Q 176. All of the following may occur in Noonan's syndrome except:

- A. Hypertrophic cardiomyopathy.
- B. Cryptorchidism.
- C. Infertility in females.
- D. Autosomal dominant transmission.

Ans. C

Q 177. In an single visit, a 9-month old, unimmunized child can be given the following vaccination:

- A. Only BCG.
- B. BCG, DPT-1, OPV-1.
- C. DPT-1, OPV-1, Measles.
- D. BCG, DPT-1 OPV-1, Measles.

Ans. D

Q 178. An eight-year old boy had abdominal pain, fever with bloody diarrhea for 18 months. His height is 110 cms and weight is 14.5 kg. Stool culture was negative for known enteropathogens. The sigmoidoscopy was normal. During the same period, child had an episode of renal colic and passed urinary gravel. The mantoux test was 5 × 5 mm. The most probable diagnosis is:

- A. Ulcerative colitis.
- B. Crohn's disease.

C. Intestinal tuberculosis.

D. Strongyloidosis.

Ans. B

Q 179. A 45-day old infant developed icterus and two days later symptoms and signs of acute liver failure appeared. Child was found to be positive for HBsAg. The mother was also HBs Ag carrier. The mother's hepatitis B serological profile is likely to be:

A. HBsAg positive only.

B. HBsAg and HbeAg positivity.

C. HBsAg and anti-HBe antibody positivity.

D. Mother infected with mutant HBV.

Ans. B

Q 180. A 15-year old healthy boy with no major medical problem complains that he breaks out with blocky areas of erythema that are pruritic over skin of his arm, leg and trunk every time within an hour of eating sea foods. The clinical features are suggestive of:

A. Localised immune-complex deposition.

B. Cell mediated hypersensitivity.

C. Localized anaphylaxis.

D. Release of complement C3b.

Ans. C

Q 181. A 2-month baby presents with history of jaundice, turmeric colored urine and pale stools since birth. Examination reveals liver span of 10 cms, firm in consistency and spleen of 3 cms. The most specific investigation for establishing the diagnosis would be:

A. Liver function tests.

B. Ultrasound abdomen.

C. Peroperative cholangiogram.

D. Liver biopsy.

Ans. D

Q 182. Transient myeloproliferative disorder of the newborn is seen in association with:

A. Turner syndrome.

B. Down syndrome.

C. Neurofibromatosis.

D. Ataxia telangiectasia.

Ans. B

Q 183. A 1-month old baby presents with frequent vomiting and failure to thrive. There are features of moderate dehydration. Blood sodium is 122 mEq/l and potassium is 6.1 mEq/l. The most likely diagnosis is:

A. Gitelman syndrome.

B. Bartter Syndrome

C. 21-hydroxylase deficiency.

hydroxylase deficiency.bD. 11-

Ans. C

Q 184. A male child of 15 years, with a mental age of 9 years has an IQ of:

A. 50

B. 60

C. 70

D. 80

Ans. B

Q 185. The most appropriate drug used for chelation therapy in beta thalassemia major is:

- A. Oral desferrioxamine.
- B. Oral deferiprone.
- C. Intramuscular EDTA.
- D. Oral Succimer.

Ans. B

Q 186. Which endocrine disorder is associated with epiphyseal dysgenesis ?

- A. Hypothyroidism.
- B. Cushings syndrome.
- C. Addison's disease.
- D. Hypoparathyroidism.

Ans. A

Q 187. An albino girl gets married to a normal boy. What are the chances of their having an affected child and what are the chances of their children being carriers?

- A. None affected, all carriers.
- B. All normal.
- C. 50% carriers.
- D. 50% affected, 50% carriers.

Ans. A

Q 188. Which one of the following statements is false with regard to Xanthogranulomatous pyelonephritis in children.

- A. Often affects those younger than 8 years of age.
- B. It affects the kidney focally more frequently than diffusely.
- C. Boys are affected more frequently.
- D. Clinical presentation in children is same as in adults.

Ans. D

Q 189. Which one of the following statements is false with regard to pyuria in children?

- A. Presence of more than 5 WBC/hpf (high power field) for girls and more than 3 WBC/hpf for boys.
- B. Infection can occur without pyuria.
- C. Pyuria may be present without urinary tract infection.
- D. Isolated pyuria is neither confirmatory nor diagnostic for urinary tract infection.

Ans. D

Q 190. Which one of the following is the most common cause of abdominal mass in neonates?

- A. Neuroblastoma.
- B. Wilm's tumour.
- C. Distended bladder.
- D. Multicystic dysplastic kidneys.

Ans. D

DERMATOLOGY

Q 191. Acantholysis is characteristic of:

- A. Pemphigus vulgaris
- B. Pemphigoid
- C. Erythema multiforme
- D. Dermatitis herpetiformis

Ans. A

Q 192. A 5 year old boy has multiple asymptomatic oval and circular faintly hypopigmented macules with scaling on his face. The most probable clinical diagnosis is:

- A. Pityriasis versicolor.
- B. Indeterminate leprosy.
- C. Pityriasis alba.
- D. Acrofacial vitiligo.

Ans. C

Q 193. A 40-year old male developed persistent oral ulcers followed by multiple flaccid bullae on trunk and extremities. Direct examination of a skin biopsy immunofluorescence showed intercellular IgG deposits in the epidermis. The most probable diagnosis is:

- A. Pemphigus vulgaris.
- B. Bullous pemphigoid.
- C. Bullous lupus erythematosus.
- D. Epidermolysis bullosa acquisita.

Ans. A

Q 194. The test likely to help in diagnosis of a patient who presents with an itchy annular plaque on the face is:

- A. Gram's stain.
- B. Potassium hydroxide mount.
- C. Tissue smear.
- D. Wood's lamp examination.

Ans. B

Q 195. An eleven year old boy is having tinea capitis on his scalp. The most appropriate line of treatment is:

- A. Oral griseofulvin therapy.
- B. Topical griseofulvin therapy.
- C. Shaving of the scalp.
- D. Selenium sulphide shampoo.

Ans. A

Q 196. An 8 month old child presented with itchy, exudative lesions on the face, palms and soles. The sibling also have similar complaints. The treatment of choice in such a patient is:

- A. Systemic ampicillin.
- B. Topical betamethasone.
- C. Systemic prednisolone.
- D. Topical permethrin.

Ans. D

PSYCHIATRY

Q 197. Which of the following symbol represent adopted individuals:

- A.
- B.
- C.
- D.

Ans. D

Q 198. All of the following are features of hallucinations, except:

- A. It is independent of the will of the observer.
- B. Sensory organs are not involved.

- C. It is as vivid as that in a true sense perception.
- D. It occurs in the absence of a perceptual stimulus.

Ans. B

Q 199. Delirium tremens is characterized by confusion associated with:

- A. Autonomic hyperactivity and tremors.
- B. Features of intoxication due to alcohol.
- C. Sixth nerve palsy.
- D. Korsakoff psychosis.

Ans. A

Q 200. All of the following are impulse control disorders except:

- A. Pyromania.
- B. Trichotillomania.
- C. Kleptomania.
- D. Capgras' syndrome.

Ans. D

Q 201. A 20-year old man has presented with increased alcohol consumption and sexual indulgence, irritability, lack of sleep and not feeling fatigued even on prolonged periods of activity. All these changes have been present for 3 weeks. The most likely diagnosis is:

- A. Alcohol dependence.
- B. Schizophrenia.
- C. Mania.
- D. Impulsive control disorder.

Ans. C

Q 202. An alcoholic is brought to the Emergency OPD with the complaint of irrelevant talking. He had stopped using alcohol three days back. On examination, he is found to be disoriented to time, place and person. He also has visual illusions and hallucinations. There is no history of head injury. The most likely diagnosis is:

- A. Dementia praecox.
- B. Delirium tremens.
- C. Schizophrenia.
- D. Korsakoff's psychosis.

Ans. B

Q 203. A 41-year old married female presented with headache for the last 6 months. She had several consultations. All her investigations were found to be within normal limits. She still insists that there is something wrong in her head and seeks another consultation. The most likely diagnosis is:

- A. Phobia.
- B. Psychogenic headache.
- C. Hypochondriasis.
- D. Depression.

Ans. C

Q 204. Behavior therapy to change maladaptive behaviors using response as reinforcer uses the principles of:

- A. Classical conditioning.
- B. Modeling.
- C. Social learning.
- D. Operant conditioning.

Ans. D

Q 205. A 15 year old boy feels that the dirt has hung onto him whenever he passes

through the dirty street. This repetitive thought causes much distress and anxiety. He knows that there is actually no such thing after he has cleaned once but he is not satisfied and is compelled to think so. This has led to social withdrawal. He spends much of his time thinking about the dirt and contamination. This has affected his studies also. The most likely diagnosis is:

- A. Obsessive compulsive disorder.
- B. Conduct disorder.
- C. Agoraphobia.
- D. Adjustment disorder.

Ans. A

Q 206. A 50 year old man has presented with pain in back, lack of interest in recreational activities, low mood, lethargy, decreased sleep and appetite for two months. There was no history suggestive of delusions or hallucinations. He did not suffer from any chronic medical illness. There was no family history of psychiatric illness. Routine investigations including haemogram, renal function tests, liver functions tests, electrocardiogram did not reveal any abnormality. This patient should be treated with:

- A. Haloperidol.
- B. Sertraline.
- C. Alprazolam.
- D. Olanzapine.

Ans. B

GENERAL SURGERY

Q 207. A 70 year old male patient presented with history of chest pain and was diagnosed to have coronary artery disease. During routine evaluation, an ultrasound of the abdomen showed presence of gallbladder stones. There was no past history of biliary colic or jaundice. What is the best treatment advice for such a patient for his gallbladder stones:

- A. Open cholecystectomy
- B. Laparoscopic cholecystectomy
- C. No surgery for gallbladder stones
- D. ERCP and removal of gallbladder stones

Ans. C

Q 208. Early stage of trauma is characterized by:

- A. Catabolism.
- B. Anabolism.
- C. Glycogenesis.
- D. Gluconeogenesis.

Ans. A

Q 209. Bedsore is an example of:

- A. Tropical ulcer
- B. Trophic ulcer
- C. Venous ulcer
- D. Post thrombotic ulcer

Ans. B

Q 210. Marjolin's ulcer is:

- A. Malignant ulcer found on the scar of burn.
- B. Malignant ulcer found on infected foot.
- C. Trophic ulcer.
- D. Meleney's gangrene.

Ans. A

Q 211. If a patient with Raynaud's disease immer-sed his hand in cold water, the hand will:

- A. Become red.
- B. Remain unchanged.
- C. Turn white.
- D. Become blue.

Ans. C

Q 212. The best treatment for cystic hygroma is:

- A. Surgical excision.
- B. Radiotherapy.
- C. Sclerotherapy.
- D. Chemotherapy.

Ans. A

Q 213. Which of the following is most suggestive of neonatal small bowel obstruction:

- A. Generalised abdominal distension.
- B. Failure to pass meconium in the first 24 hours.
- C. Bilious vomiting.
- D. Refusal of feeds.

Ans. C

Q 214. What is most characteristic of congenital hypertrophic pyloric stenosis:

- A. Affects the first born female child.
- B. The pyloric tumour is best felt during feeding.
- C. The patient is commonly marasmic.
- D. Loss of appetite occurs early.

Ans. B

Q 215. Which of the following lasers is used for treatment of benign prostatic hyperplasia as well as urinary calculi?

- A. CO2 laser
- B. Excimer laser
- C. Ho : YAG laser
- D. Nd : YAG laser

Ans. C

Q 216. What is the most appropriate operation for a solitary nodule in one lobe of thyroid:

- A. Lobectomy
- B. Hemithyroidectomy.
- C. Nodule removal.
- D. Partial lobectomy with 1 cm margin around nodule.

Ans. B

Q 217. A posteriorly perforating ulcer in the pyloric antrum of the stomach is most likely to produce initial localized peritonitis or abscess formation in the following:

- A. Omental bursa (lesser sac)
- B. Greater sac
- C. Right subphrenic space
- D. Hepatorenal space (pouch of Morrison)

Ans. A

Q 218. A 65-year old male smoker presents with gross total painless hematuria. The most likely diagnosis is:

- A. Carcinoma urinary bladder.
- B. Benign prostatic hyperplasia.
- C. Carcinoma prostate.
- D. Cystolithiasis.

Ans. A

Q 219. A 10-mm calculus in the right lower ureter associated with proximal hydrouretero-nephrosis is best treated with:

- A. Extracorporeal shockwave lithotripsy.
- B. Antegrade percutaneous access.
- C. Open ureterolithotomy.
- D. Ureteroscopic retrieval.

Ans. D

Q 220. Semen analysis of a young man who presented with primary infertility revealed low volume, fructose negative ejaculate with azoospermia. Which of the following is the most useful imaging modality to evaluate the cause of his infertility ?

- A. Colour duplex ultrasonography of the scrotum.
- B. Transrectal ultrasonography.
- C. Retrograde urethrography
- D. Spermatic venography.

Ans. B

Q 221. A 70 year old patient with benign prostatic hyperplasia underwent transurethral resection of prostate under spinal anaesthesia. One hour later, he developed vomiting and altered sensorium. the most probable cause is:

- A. Overdosage of spinal anaesthetic agent.
- B. Rupture of bladder.
- C. Hyperkalemia.
- D. Water intoxication.

Ans. D

Q 222. A 50-year old male, working as a hotel cook, has four dependent family members. He has been diagnosed with an early stage squamous cell cancer of anal canal. He has more than 60% chances of cure. The best treatment option is:

- A. Abdomino-perineal resection.
- B. Combined surgery and radiotherapy.
- C. Combined chemotherapy and radiotherapy.
- D. Chemotherapy alone.

Ans. C

Q 223. The commonest cause of an obliterative stricture of the membranous urethra is:

- A. Fall-astride injury.
- B. Road-traffic accident with fracture pelvis and rupture urethra.
- C. Prolonged catheterization.
- D. Gonococcal infection

Ans. B

Q 224. Which of the following is an absolute indication for surgery in cases of benign prostatic hyperplasia:

- A. Bilateral hydroureteronephrosis.
- B. Nocturnal frequency.
- C. Recurrent urinary tract infection.
- D. Voiding bladder pressures >50 cm of water.

Ans. A

Q 225. A 27 year old man presents with a left testicular tumor with a 10 cm retroperitoneal lymph node mass. The treatment of choice is:

- A. Radiotherapy.
- B. Immunotherapy with interferon and inter-leukins.
- C. Left high inguinal orchidectomy plus chemotherapy.
- D. Chemotherapy alone.

Ans. C

Q 226. The best time for Surgery of hypospadias is:

- A. 1-4 months of age.
- B. 6-10 months of age.
- C. 12-18 months of age.
- D. 2-4 years of age.

Ans. B

Q 227. The Hunterian Ligature operation is performed for:

- A. Varicose veins.
- B. Arteriovenous fistulae.
- C. Aneurysm.
- D. Acute ischemia.

Ans. C

Q 228. Sympathectomy is indicated in all the following conditions except:

- A. Ischaemic ulcers.
- B. Intermittent claudication.
- C. Anhidrosis.
- D. Acrocyanosis.

Ans. C

orthopaedics

Q 229. Commonest cause for neuralgic pain in foot is:

- A. Compression of communication between medial and lateral plantar nerve.
- B. Exaggeration of longitudinal arches.
- C. Injury to deltoid ligament.
- D. Shortening of plantar aponeurosis.

Ans. A

Q 230. In actinomycosis of the spine, the abscess usually erodes:

- A. Intervertebral disc
- B. Into the pleural cavity
- C. Into the retroperitoneal space
- D. Towards the SKIN

Ans. D

Q 231. A ten-year old girl presents with swelling of one knee joint. All of the following conditions can be considered in the differential diagnosis, except:

- A. Tuberculosis
- B. Juvenile rheumatoid arthritis
- C. Haemophilia
- D. Villonodular synovitis

Ans. C

Q 232. Avascular necrosis can be a possible sequelae of FRACTURE of all of the following bones, except:

- A. Femur neck
- B. Scaphoid

- C. Talus
- D. Calcaneum

Ans. D

Q 233. Sciatic nerve palsy may occur in the following injury:

- A. Posterior dislocation of hip joint.
- B. FRACTURE neck of femur.
- C. Trochanteric FRACTURE .
- D. Anterior dislocation of hip.

Ans. A

Q 234. A 30-year old male was brought to the casualty following a road traffic accident. His physical examination revealed that his right lower limb was short, internally rotated and flexed and adducted at the hip. The most likely diagnosis is:

- A. FRACTURE neck of femur.
- B. Trochanteric FRACTURE .
- C. Central FRACTURE dislocation of hip.
- D. Posterior dislocation of hip.

Ans. D

Q 235. Which one of the following tests will you adopt while examining a knee joint where you suspect an old tear of anterior cruciate ligament?

- A. Posterior drawer test.
- B. McMurray test.
- C. Lachman test.
- D. Pivot shift test.

Ans. C

Q 236. An eight-year old boy presents with back pain and mild fever. His plain X-ray of the dorsolumbar spine reveals a solitary collapsed dorsal vertebra with preserved disc spaces. There was no associated soft tissue shadow. The most likely diagnosis is:

- A. Ewing's sarcoma.
- B. Tuberculosis.
- C. Histiocytosis.
- D. Metastasis.

Ans. C

Q 237. Kienbock's disease is due to avascular necrosis of:

- A. Femoral neck.
- B. Medial cuneiform bone.
- C. Lunate bone.
- D. Scaphoid bone.

Ans. C

Q 238. Pseudoclaudication is due to compression of:

- A. Femoral artery.
- B. Femoral nerve.
- C. Cauda Equina.
- D. Popliteal artery.

Ans. C

Anaesthesia

Q 239. An anaesthetist orders a new attendant to bring the oxygen cylinder. He will ask the attendant to identify the correct cylinder by following color code:

- A. Black cylinder with white shoulder.
- B. Black cylinder with grey shoulder.

C. White cylinder with black shoulder.

D. Grey cylinder with white shoulder.

Ans. A

Q 240. During rapid sequence induction of Anaesthesia :

A. Sellick's maneuver is not required.

B. Pre-oxygenation is mandatory.

C. Suxamethonium is contraindicated.

D. Patient is mechanically ventilated before endotracheal intubation.

Ans. B

Q 241. A 5 year old boy suffering from Duchenne muscular dystrophy has to undergo tendon lengthening procedure. The most appropriate anaesthetic would be:

A. Induction with intravenous thiopentone and N₂O & halothane for maintenance.

B. Induction with intravenous propofol and N₂O & oxygen for maintenance.

C. Induction with intravenous suxamethonium and N₂O & halothane for maintenance.

D. Inhalation induction with inhalation halothane and N₂O & oxygen for maintenance.

Ans. B

Q 242. A 25 year old male is undergoing incision and drainage of abscess under general Anaesthesia with spontaneous respiration. The most efficient anaesthetic circuit is:

A. Mapleson A

B. Mapleson B

C. Mapleson C

D. Mapleson D

Ans. A

Q 243. In all the following conditions neuraxial blockade is absolutely contraindicated, except:

A. Patient refusal.

B. Coagulopathy.

C. Severe hypovolemia.

D. Pre-existing neurological deficits.

Ans. D

Q 244. Interscalene approach to brachial plexus block does not provide surgical Anaesthesia in the area of distribution of which of the following nerve:

A. Musculocutaneous.

B. Ulnar.

C. Radial.

D. Median.

Ans. B

Q 245. At the end of a balanced Anaesthesia technique with non-depolarizing muscle relaxant, a patient recovered spontaneously from the effect of muscle relaxant without any reversal. Which is the most probable relaxant the patient had received?

A. Pancuronium

B. Gallamine

C. Atracurium

D. Vecuronium

Ans. C

Q 246. A 64 year old hypertensive obese female was undergoing Surgery for

FRACTURE femur under general Anaesthesia . Intra-operatively her end tidal carbon dioxide decreased to 20 from 40 mm Hg, followed by hypotension and oxygen saturation of 85%. What would be the most probable cause:

- A. Fat embolism
- B. Hypovolemia
- C. Bronchospasm
- D. Myocardial infarction

Ans. A

Q 247. One unit of fresh blood raises the Hb% concentration by:

- A. 0.1 gm%
- B. 1 gm%
- C. 2 gm%
- D. 2.2 gm%

Ans. B

Q 248. A 50 kg. man with severe metabolic acidosis has the following parameters: pH 7.05, pCO₂ 12 mmHg, pO₂ 108 mmHg, HCO₃ 5 mEq/L, base excess -30 mEq/L. The approximate quantity of sodium bicarbonate that he should receive in half hour is:

- A. 250 mEq.
- B. 350 mEq.
- C. 500 mEq.
- D. 750 mEq.

Ans. A

Q 249. The induction agent of choice in day care Anaesthesia is:

- A. Sevoflurane.
- B. Ketamine.
- C. Propofol.
- D. Methohexitone.

Ans. C

Q 250. A 38 year old man is posted for extraction of last molar tooth under general Anaesthesia as a day care case. He wishes to resume his work after 6 hours. Which one of the following induction agents is preferred:

- A. Thiopentone sodium.
- B. Ketamine.
- C. Diazepam.
- D. Propofol.

Ans. D

Q 251. During cardiopulmonary resuscitation, intravenous calcium gluconate is indicated under all of the following circumstances, except:

- A. After 1 min. of arrest routinely.
- B. Hypocalcemia.
- C. Calcium channel blocker toxicity.
- D. Electromechanical dissociation.

Ans. A

Q 252. Induction agent that may cause adrenal cortex suppression is:

- A. Ketamine.
- B. Etomidate.
- C. Propofol.
- D. Thiopentone.

Ans. B

OBSTETRICS AND Gynaecology

Q 253. A 40 year old lady delivered a full term baby. On examination of the baby, the neonatologist noted certain urogenital abnormality. He took the following picture. The most likely diagnosis is:

- A. Urogenital sinus
- B. Hypertrophied clitoris
- C. Micropenis
- D. Vulval hematoma

Ans. B

Q 54. A 55 year old lady presenting to out patient department (OPD) with postmenopausal bleeding for 3 months has a 1 × 1 cm nodule on the anterior lip of cervix. The most appropriate investigation to be done subsequently is:

- A. Pap smear
- B. Punch biopsy
- C. Endocervical curettage
- D. Colposcopy

Ans. B

Q 255. A hemodynamically stable nulliparous patient with ectopic pregnancy has adnexal mass of 2.5 × 3 cms and beta hCG titre of 1500 mIU/ml. What modality of treatment is suitable for her:

- A. Conservative management
- B. Medical management
- C. Laparoscopic Surgery
- D. Laparotomy

Ans. B

Q 256. A case of gestational trophoblastic neoplasia belongs to high risk group if disease develop after:

- A. Hydatidiform mole
- B. Full term pregnancy
- C. Spontaneous abortion
- D. Ectopic pregnancy

Ans. B