

C.S.E – MEDICAL SCIENCE – 2005  
(PRELIMINARY)

Time Allowed: 2 hours

Maximum Marks

1. Consider the following statements:

The human heart has

1. the opening of coronary sinus in the right atrium.
2. its SA Node located just above the opening of coronary sinus.
3. its AV Node located in the atrio-ventricular septum. Which of the statements given above are correct?

- (a) 1 and 2 (b) 2 and 3  
(c) 1 and 3 (d) 1, 2 and 3

2. The paralysis of which one of the following causes lurching gait?

- (a) Adductor muscles  
(b) Gluteus maximus  
(c) Ilio-psoas  
(d) Gluteus medius et minimus

3. With reference to left kidney, which one of the following statements is not correct?

- (a) It is surrounded by the renal fascia which also encloses the left supra-renal gland  
(b) It has five vascular segments  
(c) It is related anteriorly to the fourth part of the duodenum  
(d) It drains into the lateral aortic lymph nodes

4. Which of the following structures does not pass through lienorenal ligament?

- (a) Splenic artery (b) Splenic vein  
(c) Short gastric arteries (d) Tail of pancreas

5. Match List-I (Arteries supplying stomach) with List-II (Arteries of origin) and select the correct answer using the code given below the Lists:

List-I

- A. Left Gastric  
B. Right Gastric  
C. Left Gastroepiploic  
D. Right Gastroepiploic

List-II

1. Coeliac artery  
2. Splenic artery  
3. Gastro-duodenal artery  
4. Common Hepatic artery

A B C D

- (a) 1 2 4 3  
(c) 3 2 4 1

A B C D

- (b) 1 4 2 3  
(d) 3 4 2 1

6. The root of the right lung does not lie behind which one of the following?

- (a) Right atrium (b) Right Vagus  
(c) Superior vena cava (d) Phrenic nerve

7. Which one of the following is the most important support of the uterus?

- (a) Broad ligament

- (b) Round ligament of the uterus
- (c) Levator ani muscle
- (d) Pubocervical ligament .

**8. The germ cells are derived from**

- (a) yolk sac endoderm
- (b) amnion
- (c) germinal epithelium of gonad
- (d) allantois

**9. Regarding the adrenal gland, which following statement is correct?**

- (a) It contains pre-ganglionic neurons
- (b) Its medulla synthesizes corticoids
- (c) It is drained by three veins
- (d) It contains chromaffin cells

**10. Match List-I (Arteries supplying brain) with List-II (Syndrome or Symptoms when affected) and select the correct answer using the code given below:**

List-I

- A. Anterior spinal artery
- B. Posterior cerebral artery
- C. Recruitment branch of the anterior cerebral artery
- D. Anterior inferior cerebellar artery

List-II

- 1. Isolated facial nerve palsy
- 2. Lateral medullary syndrome
- 3. Medial medullary syndrome
- 4. Third and Fourth cranial nerve palsy
- 5. Sixth, Seventh and Eighth cranial nerve palsy

- |     | A | B | C | D |
|-----|---|---|---|---|
| (a) | 1 | 4 | 3 | 5 |
| (c) | 3 | 5 | 1 | 4 |

- |     | A | B | C | D |
|-----|---|---|---|---|
| (b) | 3 | 4 | 1 | 5 |
| (d) | 1 | 5 | 2 | 4 |

**11. The ipsilateral fibres of the optic nerve relay in which of the following layers of lateral geniculate body?**

- (a) 2, 3, 5
- (b) 1, 4, 6
- (c) 1, 4, 5
- (d) 2, 3, 6

**12. Through which part of internal capsule does auditory pathway pass?**

- (a) Anterior limb
- (b) Posterior limb
- (c) Retro-lentiform part
- (d) Sub-lentiform part

**13. The secretomotor fibres to the parotid gland reach via**

- (a) facial nerve
- (b) glossopharyngeal nerve
- (c) mandibular nerve
- (d) vagus nerve

**14. Consider the following developmental zones seen in intracartilaginous bone formation in long and short bones:**

- 1. Zone of maturation and hypertrophy
- 2. Zone of proliferation and multiplication
- 3. Zone of cartilage calcification
- 4. Zone of cartilage removal and bone deposition

What is the correct sequence of the above zones from the distal ends?

- (a) 1 - 2 - 3 - 4 (b) 2 - 1 - 3 - 4  
(c) 2 - 1 - 4 - 3 (d) 1 - 4 - 3 - 2

**15. Which one of the following sensory receptors is found in epidermis?**

- (a) Merkel disc (b) Meissner's corpuscles  
(c) Ruffini ending (d) Pacinian corpuscles

**16. Which one of the following cells of germinal epithelium of testis divides by meiosis?**

- (a) Type A spermatogonium  
(b) Primary spermatocyte  
(c) Spermatid  
(d) Secondary spermatocyte

**17. The body of the vertebra develops from**

- (a) notochord (b) primitive streak  
(c) one sclerotome  
(d) cephalic and caudal halves of adjacent sclerotomes

**18. Which of the following does not contribute to the development of laryngeal cartilages?**

- (a) Tuberculum impar  
(b) Mesenchyme derived from neural crest  
(c) Cartilages of fourth to sixth pairs of pharyngeal arches  
(d) Hypobranchial eminence

**19. The diaphragm is formed from the following except**

- (a) septum transversum  
(b) paraxial mesoderm  
(c) pleuroperitoneal membranes  
(d) dorsal mesentery of esophagus

**20. Support of the muscles against gravity is a function of which one of the following?**

- (a) Reticular nuclei (b) Hypothalamus  
(c) Supplementary motor area (d) Amygdala

**21. The type of synaptic inhibition seen in cerebellum is**

- (a) pre-synaptic (b) post-synaptic  
(c) feed forward (d) Renshaw cell

**22. The characteristic brown-red colour of faeces is due to the presence of**

- (a) biliverdin (b) urobilinogen  
(c) stercobilin (d) bilirubin

**23. Consider the following:**

1. Electrocardiogram 3. Jugular venous pulse tracing  
2. Phonocardiogram 4. Carotid pulse tracing

Which of the above must be recorded simultaneously in order to calculate the duration of total electromechanical systole?

- (a) 1 and 2 (b) 1 and 3  
(c) 2 and 3 (d) 1, 2 and 4

**24. Cerebral vasodilation is not brought about by**

- (a) an increase in  $P_{CO_2}$   
(b) a decrease in  $PO_2$  below 30 mm Hg  
(c) an increase in lactic acid  
(d) a decrease in  $PO_2$  in the range of 30-60 mm Hg

**25. The stimulation of which of the following causes hyperventilation at high altitude?**

- (a) Peripheral chemoreceptors  
(b) Vagal afferents  
(c) Central chemoreceptors  
(d) Proprioceptors

**26. Section of the vagus nerve results in**

- (a) increased rate of respiration  
(b) decreased depth of respiration  
(c) irregular breathing patterns  
(d) increase in breath-holding time

**27. Regarding prothrombin time, which one of the following statements is not correct?**

- (a) It gives an indication of the total quantity of prothrombin in the blood sample  
(b) It requires the presence of thromboplastin and calcium ions  
(c) The reaction involves the tissue thromboplastin activation of prothrombin to thrombin  
(d) It is a measure of rate of reaction from prothrombin to fibrin formation

**28. Which one of the following substances, actively transported by the tubular cells, has the highest Tubular Transport Maximum?**

- (a) Plasma protein (b) Haemoglobin  
(c) Glucose (d) Sodium

**29. Blood samples for glucose estimation are collected in fluoride tubes as fluoride prevents glycolysis by inhibiting.**

- (a) glucokinase (b) phosphofructokinase  
(c) aldolase (d) enolase

**30. A molecule used to detect the presence of specific fragment of DNA or RNA is known as**

- (a) Primosome (b) Probe  
(c) Pseudogene (d) Signal

**31. Consider the following statements:**

1. Plasmids are circular double-stranded DNA seen inside bacteria.
2. Plasmids confer antibiotic resistance to host bacteria.
3. Plasmids are used as vectors in recombinant DNA technology.

Which of the statements given above are correct?

- (a) 1 and 2 (b) 2 and 3  
(c) 1 and 3 (d) 1, 2 and 3

**32. The process of programmed genedirected cell death characterised by cell-shrinkage, nuclear condensation and fragmentation is known as**

- (a) Necrosis (b) Chromatolysis  
(c) Pyknosis (d) Apoptosis

**33. During protein biosynthesis, high energy bonds are not utilized in which one of the following steps?**

- (a) Formation of aminoacyl tRNA  
(b) Binding of aminoacyl tRNA to A site of ribosome  
(c) Formation of peptide bond (peptidyl transferase step)  
(d) Translocation step

**34. Which of the following is not a characteristic of Hemoglobin S?**

- (a) Red cells are sickle shaped  
(b) Insoluble in low O<sub>2</sub> tension  
(c) Abnormal heme portion  
(d) Normal alpha chain but abnormal beta chain

**35. The plasma pH is increased in which of the following situations?**

- (a) During renal shutdown  
(b) During exercise  
(c) When a high protein diet is taken  
(d) During breath holding

**36. The Wobble hypothesis refers to the less stringent base-pairing specificity of the**

- (a) 5' end base of the codon (b) 5' end base of the anticodon  
(c) 3' end base of the anticodon (d) middle base of the anticodon

**37. Which of the following factors in bile juice is responsible for preventing the precipitation of cholesterol and formation of gall stones?**

- (a) High alkaline condition (b) High concentration of bicarbonates  
(c) Bile salts (d) Bile pigments

**38. Which one of the following events does not contribute to the movement of fluid from vascular compartment to extra-vascular compartment during acute inflammation?**

- (a) Increased capillary permeability,  
(b) Increased osmotic pressure of plasma protein  
(c) Increased hydrostatic pressure of the blood  
(d) Increased osmotic pressure of the interstitial fluid

39. Match List-I (Immunological markers in serum of hepatitis-B infection) with List-II (Significance of the markers) and select the correct answer using the code given below the Lists:

List - I

- A. Persistence of HBe Ag beyond 10 weeks
- B. Seroconversion from HBe Ag to anti-HBe during acute stage
- C. High titre of Ig M anti-HBc persists
- D. Elevated level of IgG anti-HBc in acute stage

A B C D

- (a) 3 4 2 1
- (c) 1 2 4 3

List - II

- 1. Infection in the remote past
- 2. Acute recent infection
- 3. Chronic liver disease
- 4. Resolution of disease for four to six months

A B C D

- (b) 3 2 4
- (d) 1 4 2 3

40. Match List-I (Spread of infection) with List-II (Infective disease) and select the correct answer using the code given below the Lists:

List-I List-II

- A. Inhalation
- B. Ingestion
- C. Body contact
- D. Blood borne

A B C D

- (a) 3 2 1 4
- (c) 4 2 1 3

- I. Hepatitis-E virus infection
- 2. Herpes simplex virus infection
- 3. Hepatitis-C virus infection
- 4. Mumps

A B C D

- (b) 3 1 2 4
- (d) 4 1 2 3

41. Cleavage of IgG molecule by papain gives rise to

- (a) one  $F_c$  fragment and two  $F_{ab}$  fragments
- (b) one  $F_c$  fragment and four  $F_{ab}$  fragments
- (c) two  $F_c$  fragments and four  $F_{ab}$  fragments
- (d) two  $F_c$  fragments and two  $F_{ab}$  fragments

42. Carcinogenesis attributed to the formation of pyrimidine dimers in DNA commonly occurs following exposure to

- (a) UV radiation
- (b) infra-red radiation
- (c) viral oncogenes
- (d) chemical carcinogens

43. The mononuclear macrophage system of bone is

- (a) osteoclast
- (b) osteoblast
- (c) osteocyte
- (d) osteophyte

44. Match List-I (Cytokines) with List-II (Effects) and select the correct answer using the code given below the Lists:

List-I

- A. IL-1 and 6
- B. TNF- alpha
- C. IL-2 and 4
- D. G-CSF

List-II

- 1. Stimulate – haematopoiesis
- 2. Activate inflammatory cells
- 3. Regulate lymphocytic growth and differentiation
- 4. Mediate natural immunity

- |     | A | B | C | D |
|-----|---|---|---|---|
| (a) | 1 | 2 | 3 | 4 |
| (c) | 4 | 3 | 2 | 1 |

- |     | A | B | C | D |
|-----|---|---|---|---|
| (b) | 1 | 3 | 2 | 4 |
| (d) | 4 | 2 | 3 | 1 |

45. Which one of the following immunoglobulins constitutes the antigen-binding component of B-cell receptor?

- (a) IgA
- (b) IgD
- (c) IgM
- (d) IgG

46. Consider the following findings:

- 1. Granuloma with central caseation
- 2. Langhans and foreign body giant cells
- 3. Zone of lymphocytic infiltration around the mass of epithelioid cells and giant cells
- 4. Lack of reticulum between the cells on special stain

Which of the above findings differentiate tuberculous lymph node from sarcoidosis of lymph node?

- (a) 1, 2 and 3
- (b) 1, 2 and 4
- (c) 2 and 4
- (d) 1 and 4

47. In the context of immune system, what is the correct sequence of activation of the components of the complement in the classical pathway?

- (a) C1-C4-C2-C3-C5
- (a) C1-C2-C3-C4-C5
- (a) C1-C5-C4-C2-C3
- (a) C3-C1-C2-C4-C5

48. Which of the following does cholera toxin have?

- (a) Five 'B' subunits and one 'A' subunit
- (b) Four 'B' subunits and one 'A' subunit
- (c) Three 'B' subunits and two 'A' subunits
- (d) Two 'B' subunits and two 'A' subunits

49. Consider the following statements:

T cell function can be assessed by

- 1. complement fixation tests.
- 2. intradermal test.
- 3. tube agglutination tests.
- 4. lymphocyte proliferation test.

Which of the statements given above are correct?

- (a) 1, 2 and 3
- (b) 2 and 4
- (c) 2, 3 and 4
- (d) 1 and 4

**50. Malarial relapse is seen in**

- (a) *P. falciparum* and *P. vivax*
- (b) *P. falciparum* and *P. malariae*
- (c) *P. ovale* and *P. malariae*
- (d) *P. vivax* and *P. ovale*

**51. Match List-I (Autoimmune disease) with List-II (Self antigen) and select the correct answer using the code given below the Lists:**

List-I

- A. Pernicious anaemia
- B. Multiple sclerosis
- C. Rheumatoid arthritis
- D. Goodpasture's syndrome.

List-II

- 1. Thyroglobulin
- 2. Gamma globulin
- 3. Gastric parietal cells
- 4. Basement membrane
- 5. Central nervous system myelin

- |     | A | B | C | D |
|-----|---|---|---|---|
| (a) | 4 | 5 | 2 | 3 |
| (c) | 4 | 1 | 5 | 3 |

- |     | A | B | C | D |
|-----|---|---|---|---|
| (b) | 3 | 1 | 5 | 4 |
| (d) | 3 | 5 | 2 | 4 |

**52. Collagen deficiency due to decreased hydroxylation of proline and lysine occurs due to the deficiency of which one of the following?**

- (a) Vitamin A
- (b) Vitamin D
- (b) Vitamin C
- (c) Vitamin K

**53. The drug of choice to eliminate amoebic luminal cysts is**

- (a) Metronidazole
- (b) Tinidazole
- (c) Diloxanide furoate
- (d) Chloroquine

**54. The venom of which one of the following snakes is known to be neurotoxic?**

- (a) Russell's viper.
- (b) Pit viper
- (c) Krait
- (d) Sea snake

**55. Which one of the following statements is not correct?**

- (a) Cerebral blood flow is approximately 75 ml per 100 gm per minute in the gray matter
- (b) Cerebral oxygen consumption is 3.5 ml per 100 gm per minute
- (c) Cerebral glucose consumption is 5 mg per 100 gm per minute
- (d) The EEG becomes invariably abnormal when cerebral blood flow diminishes to 35 ml per 100 gm per minute

**56. Match List-I (Pathogen) with List-II (Medium for cultivation) and select the correct answer using the code given below the Lists:**

List-I

- A. *Salmonella typhimurium*
- B. *Vibrio cholerae*
- C. *Neisseria meningitidis*
- D. *Mycobacterium tuberculosis*

List-II

- 1. Lowenstein Jensen medium
- 2. Chocolate agar
- 3. Mannitol salt agar
- 4. TCBS agar
- 5. Wilson and Blair's medium

- |     |   |   |   |   |
|-----|---|---|---|---|
|     | A | B | C | D |
| (a) | 5 | 4 | 2 | 3 |
| (c) | 5 | 4 | 2 | 1 |

- |     |   |   |   |   |
|-----|---|---|---|---|
|     | A | B | C | D |
| (b) | 2 | 5 | 4 | 1 |
| (d) | 2 | 5 | 4 | 3 |

**57. A comatosed patient due to a large intracerebral bleed is likely to benefit from the following except**

- (a) mannitol intravenously
- (b) intravenous magnesium sulphate
- (c) dexamethasone intravenously
- (d) hyperventilation

**58. Which one of the following findings is not associated with an acute attack of bronchial asthma?**

- (a) Forced expiratory volume in one, second decreases
- (b) Maximal expiratory flow rate decreases
- (c) Peak expiratory flow rate decreases
- (d) Pulsus paradoxus appears when FEV<sub>1</sub> is less than 35% of the predicted value

**59. Which one of the following statements about management of Status Epilepticus is not correct?**

- (a) Maintain airway and start Benzodiazepines group drug
- (b) Start bolus dose Dilantin Sodium
- (c) If the patient is on antiepileptic drugs, measure the serum level of drugs
- (d) Barbiturate must be avoided as it cause respiratory depression

**60. Which one of the following is not included in the treatment of hyperkalemia in acute renal failure?**

- (a) IV calcium gluconate
- (b) Dextrose with insulin infusion
- (c) Blood transfusion
- (d) IV sodium bicarbonate

**61. In the jugular venous pulse 'a' waves larger than 'v' waves are seen in**

- (a) tricuspid stenosis
- (b) tricuspid incompetence
- (c) patent ductus arteriosus
- (d) aortic stenosis

**62. According to the Welcome classification, a child is said to have kwashiorkor when his**

- (a) weight is 60-80% of normal without edema
- (b) weight is 60-80% of normal with edema
- (c) weight is less than 60% of normal without edema
- (d) weight is less than 60% of normal with edema

**63. Match List-I (Conditions) with List-II (Drugs used) and select the correct answer using the code given below the Lists:**

List-I

- A. Chronic stable angina
- B. Unstable angina
- C. Non ST elevation myocardial infarction
- D. ST elevation myocardial infarction

List-II

- 1. Clopidogrel
- 2. gPIIb / IIIa receptor inhibitor
- 3. Heparin
- 4. Streptokinase

- |     | A | B | C | D |
|-----|---|---|---|---|
| (a) | 1 | 2 | 3 | 4 |
| (c) | 4 | 2 | 3 | 1 |

- |     | A | B | C | D |
|-----|---|---|---|---|
| (b) | 1 | 3 | 2 | 4 |
| (d) | 4 | 3 | 2 | 1 |

**64. With reference to 'aspiration pneumonia' which one of the following statements is not correct?**

- (a) It may occur with inhaled chemical fumes and vapors
- (b) Aspiration pneumonitis may damage alveolar permeability for albumin
- (c) It may respond dramatically to corticosteroids
- (d) It may occur in progressive systemic sclerosis

**65. Long-term secondary prevention following myocardial infarction is recommended with which one of the following drugs?**

- (a) Antiplatelet drugs
- (b) Nitrates
- (c) Cardorone
- (d) Calcium channel antagonist

**66. Which one of the following is not correct with regard to amoebic liver abscess?**

- (a) Its usual occurrence is in the right lobe
- (b) Patient is toxic
- (c) Surgical drainage is always indicated
- (d) Extension of abscess from liver to pericardium is the most dreaded complication

**67. Match List-I (Clinical signs) with List-II (Clinical conditions) and select the correct answer using the code given below the Lists:**

List-I

- A. Roth spot
- B. Austin Flint murmur
- C. Differential cyanosis
- D. Carey Coombs murmur

List-II

- 1. Acute rheumatic fever
- 2. Subacute bacterial endocarditis
- 3. Aortic incompetence
- 4. Patent Ductus with reversal of shunt

- |     | A | B | C | D |
|-----|---|---|---|---|
| (a) | 1 | 4 | 3 | 2 |
| (c) | 2 | 4 | 3 | 1 |

- |     | A | B | C | D |
|-----|---|---|---|---|
| (b) | 2 | 3 | 4 | 1 |
| (d) | 1 | 3 | 4 | 2 |

**68. With reference to the cirrhosis of liver, which one of the following statements is not correct?**

- (a) Portal hypertension is considered to be present when wedge hepatic vein pressure is 5 mm Hg higher than inferior vena cava pressure

- (b) Parotid gland enlargement may be a feature in patients
- (c) Hyperbilirubinaemia is a common finding in alcoholic cirrhosis
- (d) Liver Js usually enlarged and macro nodular

**69. Which of the following is not a characteristic of Zollinger-Ellison syndrome?**

- (a) Severe peptic ulceration
- (b) Hyperchlorhydria
- (c) Diarrhoea and steatorrhea
- (d) Hypergastrinemia in response to intravenous secretin is not seen in this syndrome

**70. Regarding membranous glomerulonephritis, which of the following is not correct?**

- (a) Thickening of the basement membranes is usually present
- (b) A marked increase in cellular infiltrate within the glomerulus is usually present
- (c) This entity is most common in adults
- (d) Significant proteinuria is usually present

**71. Which of the following is a characteristic of poliomyelitis?**

- (a) Initial febrile illness followed by development of a symmetrical paralysis
- (b) Symmetrical muscle weakness with frequent paraesthesia but normal reflexes
- (c) Ascending motor paralysis with preservation of reflexes and sensation
- (d) Pain in the affected limb with sensorimotor deficit

**72. Which one of the following is not a characteristic of schizophrenia?**

- (a) Delusion of grandeur
- (b) Auditory hallucination
- (c) Anxiety
- (d) Delusion of passivity

**73. Which one of the following drugs can cause cholestatic hepatitis?**

- (a) Isoniazid
- (b) Ketoconazole
- (c) Erythromycin estolate
- (d) Carbon tetrachloride

**74. Match List-I (Blood substitutes) with List-II (Indications) and select the correct answer using the code given below the Lists:**

- List-I
- A. Cryoprecipitate
  - B. Fresh whole blood.
  - C. Albumin
  - D. Fresh frozen plasma

- List-II
- 1. Volume expansion
  - 2. Acute haemorrhage
  - 3. Replacement of clotting factors
  - 4. Fibrinogen deficiency

- |     | A | B | C | D |
|-----|---|---|---|---|
| (a) | 3 | 2 | 1 | 4 |
| (c) | 3 | 1 | 2 | 4 |

- |     | A | B | C | D |
|-----|---|---|---|---|
| (b) | 4 | 2 | 1 | 3 |
| (d) | 4 | 1 | 2 | 3 |

75. Avascular necrosis can occur in fractures of the following bones *except*
- (a) talus (b) lunate  
(c) scaphoid (d) triquetrum
76. Which one of the following statements regarding glutaraldehyde is not correct?
- (a) It is used to disinfect endoscopes  
(b) The concentration of its solution used for disinfection is 4%  
(c) It is effective at pH 7.5 to 8.5  
(d) It kills both gram-positive and gram-negative organisms; and viruses including hepatitis B and HIV
77. The complications of total parenteral nutrition include the following *except*
- (a) hypermagnesemia (b) hypokalemia  
(c) hyperosmolar dehydration (d) hypophosphatemia
78. Match List-I (Type of fracture) with List-II (Occurrence) and select the correct answer using the code given below the Lists:
- |                         |  |
|-------------------------|--|
| List-I                  | List-II  |
| A. Compression fracture | I. Common in small bones with strong muscles   |
| B. Green-stick fracture | 2. Common in elderly and osteoporotic bones    |
| C. Avulsion fracture    | 3. Common in children and one cortex is intact |
| D. March fracture       | 4. Common in athletes                          |
- |             |             |
|-------------|-------------|
| A B C D     | A B C D     |
| (a) 2 1 3 4 | (b) 2 3 1 4 |
| (c) 4 1 3 2 | (d) 4 3 1 2 |
79. Regarding the management of fracture shaft of femur, which one of the following statements is not correct?
- (a) Infants are best treated by traction applied by Gallow's splint  
(b) Children are treated by skin traction in a Thomas splint.  
(c) In adults it is treated by internal fixation with intramedullary Kuntscher nail  
(d) Elderly patients are managed by internal fixation with sliding compression
80. Eradication of *H. pylori* has been proved to be beneficial in the following conditions *except*
- (a) duodenal ulcer  
(b) gastric ulcer  
(c) low grade MALT lymphoma  
(d) hypertrophic gastritis
81. The following methods are used to lower the intracranial pressure in patients with head injury *except*
- (a) hyperventilation  
(b) administration of Mannitol  
(c) hypothermia  
(d) administration of Nifedipine

- 82. Clinical manifestations of bronchogenic carcinoma include the following except**
- (a) hoarseness of voice due to involvement of left recurrent laryngeal nerve
  - (b) Horner's syndrome
  - (c) diaphragmatic palsy due to infiltration of phrenic nerve
  - (d) gastroparesis due to vagal involvement
- 83. Which one of the following is a muscle-splitting incision?**
- (a) Kocher's
  - (b) Rutherford-Morris
  - (c) Pfannenstiel
  - (d) Lanz
- 84. Regarding prostatic venous plexus, which one of the following statements is correct?**
- (a) It lies between the false capsule and true anatomical capsule
  - (b) It lies between prostatic urethra and false capsule
  - (c) It lies between the anatomical capsule and the prostatic sheath of endopelvic fascia,
  - (d) It lies outside the prostatic sheath of endopelvic fascia
- 85. A 4 x 4 cm NOMO inflammatory carcinoma of breast is best managed by**
- (a) radical mastectomy followed by radiotherapy
  - (b) neoadjuvant chemotherapy followed by surgery
  - (c) radiotherapy followed by simple mastectomy
  - (d) simple mastectomy followed by adjuvant chemotherapy
- 86. During urethral catheterisation in male patients, resistance is encountered at the following sites except**
- (a) base of navicular fossa
  - (b) mid-penile urethra
  - (c) urogenital diaphragm
  - (d) bulbomembranous junction
- 87. Which one of the following surgical procedures used in the treatment of sigmoid volvulus has a maximum incidence of recurrence?**
- (a) Exteriorisation
  - (b) Sigmoidopexy
  - (c) Extraperitonealisation
  - (d) Resection of sigmoid colon
- 88. Regarding the flow of Cerebrospinal Fluid, which one of the following sequences is correct?**
- (a) Lateral ventricle - third ventricle - aqueduct of Sylvius - fourth ventricle
  - (b) Fourth ventricle - third ventricle - aqueduct of Sylvius - lateral ventricle
  - (c) Lateral ventricle - aqueduct of Sylvius - third ventricle - fourth ventricle
  - (d) Lateral ventricle - third ventricle - fourth ventricle - aqueduct of Sylvius

**89. Which one of the following reagents is not used as sclerosant in the treatment of bleeding varices?**

- (a) Ethyl alcohol
- (b) Ethanolamine oleate
- (c) Phenol
- (d) Sodium morrhuate

**90. Portal hypertension secondary to splenic vein thrombosis is best treated by**

- (a) portacaval shunt
- (b) splenorenal shunt
- (c) oesophageal stapled transection
- (d) splenectomy and devascularisation

**91. To which one of the following types of disorders does haemophilia belong?**

- (a) Autosomal dominant
- (b) Autosomal recessive
- (c) Recessive sex-linked
- (d) Dominant sex-linked

**92. Positive Mantoux test indicates that the person**

- (a) is suffering from tuberculosis
- (b) is infected with M. tuberculosis
- (c) has extra-pulmonary tuberculosis
- (d) is suffering from atypical mycobacteria

**93. Duration of MDT (Multi drug Therapy) to resolve paucibacillary leprosy is**

- (a) 6 months
- (b) 8 months
- (c) 9 months
- (d) 12 months

**94. In a case control study, of association between**

- (a) relative risk
- (b) absolute risk
- (c) odds ratio
- (d) proportionate ratio

**95. Consider the following:**

1. Temporal Association
2. Strength of Association
3. Specificity of Association
4. Sensitivity of Association

Which of the above are included in the criteria for the measure of the strength risk factor and outcome is judging causality between an agent and disease?

- (a) 1, 2 and 3
- (b) 2, 3 and 4
- (c) 1, 3 and 4
- (d) 1, 2 and 4

**96. The relationship of mean height of two groups of children is best studied by**

- (a) Student's t-test
- (b) linear regression
- (c) chi-square test
- (d) test of proportions

**97. Which one of the following methods can most effectively control the prevalence of Brugia Malayan Filariasis?**

- (a) BHC spraying at the rate of 2 g per sq. m surface on all structures in the area
- (b) Application of one kg of Paris green as 2% dust with soap stone per acre of water surface
- (c) Removal of Pistia and other water hyacinth group of plants from water courses

(d) Daily use of mosquito repellent nets by all residents

**98. Which one of the following committees first recommended a Comprehensive Health Care delivery system for India?**

- (a) Bhore Committee
- (b) Kartar Singh Committee
- (c) Mudaliar Committee
- (d) Srivastava Committee

**99. Match List-I (Disease) with List-II (Mode of transmission) and select the correct answer using the code given below the Lists:**

List-I				List-II					
A. Ascariasis				1. Faeco-oral route					
B. Ankylostomiasis				2. Per-cutaneous route					
C. Dracunculiasis				3. Oral route					
D. Lymphatic filariasis				4. Vector route					
	A	B	C	D		A	B	C	D
(a)	I	2	3	4	(b)	I	3	2	4
(c)	4	2	3	I	(d)	4	3	2	1

**100. Which one of the following organisms is the best indicator of faecal pollution of water?**

- (a) Streptococcus faecalis
- (b) Clostridium perfringens
- (c) Salmonella enteritidis
- (d) Escherichia coli

**101. Disability-Adjusted Life Year (DALY) expresses the**

- (a) extent of disability in the population
- (b) expectation of life free of disability
- (c) years of life, lost to premature death
- (d) lost years of life due to premature death and disability

**102. The prevalence rate to be achieved to reach leprosy elimination level is**

- (a) 10 cases per 10,000 population
- (b) 5 cases per 10,000 population
- (c) less than 1 case per 10,000 population
- (d) less than 1 case per 1,000 population

**103. Match List-I (Disease/Microorganism) with List-II (Status) and select the correct answer using the code given below the Lists:**

List-I				List-II					
A. Yellow fever				1. Endemic					
B. Measles				2. Exotic					
C. Hepatitis-A				3. Sporadic					
D. Mycobacterium avium				4. Epidemic					
				5. Opportunistic					
	A	B	C	D		A	B	C	D
(a)	2	4	3	1	(b)	4	2	3	I
(c)	2	4	1	5	(d)	4	2	I	5

**104. The number of abortions performed divided by the number of live births in the same period is known as**

- (a) abortion rate
- (b) abortion incidence
- (c) abortion prevalence
- (d) abortion ratio

**105. Consider the following:**

1. NET-EN (Norethisterone Enantate)
2. DMPA (Depot Medroxy Progesterone Acetate)
3. Mesigyna
4. Norplant

Which of the above are the injectable contraceptives?

- (a) 1 and 2
- (b) 1, 2 and 3
- (c) 3 and 4
- (d) 1, 2, 3 and 4

**106. Which of the following measurements indicates whether leprosy cases are being detected early or not?**

- (a) New case detection rate
- (b) Proportion of children among new cases.
- (c) Proportion of new cases with disability
- (d) Prevalence rate of disease

**107. Diuresis produced by alcohol is due to**

- (a) decreased tubular reabsorption
- (b) increased glomerular filtration rate
- (c) osmotic diuresis
- (d) inhibition of ADH secretion

**108. Consider the following statements:**

1. There are 2,743 Community Health Centres in India.
2. One Community Health Centre covers 80,000 to 1,20,000 population and usually has 30 indoor beds. Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

**109. The period of infectivity in viral hepatitis-A is maximum**

- (a) up to 12 weeks after the onset of jaundice
- (b) during first 4 weeks after the onset of jaundice
- (c) during one week after the onset of jaundice
- (d) during two weeks before to one week after the onset of jaundice

**110. In the rod photo receptors, the pigment rhodopsin is present in.**

- (a) plasma membrane
- (b) disk membrane
- (c) cytoplasm
- (d) endoplasmic reticulum

**111. Consider the following statements:**

1. At present more than 550 District Blindness Control Societies are set up in India.
2. At present only five States have reached the level of leprosy elimination in India.

Which of the following statements given above is/are correct?

- (a) 1 only (b) 2 only  
(c) Both 1 and 2 (d) Neither 1 nor 2

**112. A relative paralysis of voluntary activity during REM sleep is dependent on**

- (a) thalamus (b) cerebellum  
(c) pons (d) locus ceruleus

**Directions: The following eight (8) items consist of two statements, one labelled as 'Assertion (a)' and the other as 'Reason (R)'. You are to examine these two statements carefully and select the answers to these items using the code given below:**

- (a) Both A and R are individually true, and R is the correct explanation of A  
(b) Both A and R are individually true but R is not the correct explanation of A  
(c) A is true but R is false (d) A is false but R is true

**113. Assertion (A) :** Jering-Breuer reflex has no role in the regulation of pulmonary ventilations during quiet breathing

**Reason (R) :** It is the load detection reflex that adjusts the tidal volume of an eupneic breathing.

**114. Assertion (A) :** Malignant cells are hyperchromatic.

**Reason (R) :** Nuclei of malignant cell contain an abundance of DNA

**115. Assertion (R) :** Loeffler's syndrome is a clinical manifestation of ascariasis.

**Reason (R) :** Large amount of immunoglobulin E (IgE) is released into the circulation in Loeffler's syndrome.

**116. Assertion (R) :** Supracondylar fracture of humerus leads to compartment syndrome

**Reason (R) :** Supracondylar fracture is associated with injury to brachial artery

**117. Assertion (R) :** Prostaglandin E, is used in the medical treatment of Buerger's disease.

**Reason (R) :** Prostaglandin E, produces maximal vasodilation and inhibits platelet aggregation.

**118. Assertion (R) :** Sub-capital fracture femur is very common in elderly.

**Reason (R) :** Elderly patients suffer from osteoarthritis.

**119. Assertion (R) :** In the lesion of the facial nerve below the stylomastoid foramen, there is a loss of taste in the anterior two-third of the tongue.

**Reason (R) :** The chorda tympani branch of the facial nerve carries the taste fibres for the anterior two-third of the tongue.

**120. Assertion (R) :** Tuberculoid leprosy is associated with a heavy bacillary load.

**Reason (R) :** Cell-mediated immune response is intact with infiltration of helper T-cells in the skin of patients of tuberculoid leprosy.