

1. The following statements in relation to right ventricular myocardial infarction are correct **except**:
 - (a) It may occur along with inferior wall myocardial infarction
 - (b) The ECG shows segment elevation in right precordial leads
 - (c) Prognosis in right ventricular infarction is worse than the left ventricular myocardial infarction
 - (d) The treatment includes intravenous diltiazem

2. Atrial myxoma is associated with the following **except**:
 - (a) Fever
 - (b) Weight loss

 - (c) Systolic murmur at apex
 - (d) Subungual splinter haemorrhage

3. Match List I with List II and select the correct answer using the code given below the lists:

List I (Auscultatory findings)

- A. Wide fixed split in the second heart sound hypertension
- B. Continuous machinery murmur
- C. Muffled heart sounds
- D. Wide variable split in the second heart sound

List II (Cardiac condition)

1. Pulmonary hypertension
2. Atrial septal defect
3. Patent ductus arteriosus
4. Pericardial effusion

Code:

	A	B	C	D
(a)	2	4	3	1
(b)	2	3	4	1
(c)	1	4	3	2
(d)	1	3	4	2

4. Match List I with List II and select the correct answer using the code given below the lists:

List I (Emergency drugs)

- A. Amiodarone
- B. Adenosine
- C. Digoxin
- D. Atropine

List II (Clinical condition)

- 1. A-V Block, mobitz type II
- 2. Atrial fibrillation
- 3. Ventricular tachycardia
- 4. Paroxysmal supraventricular tachycardia

Code:

	A	B	C	D
(a)	1	2	4	3
(b)	1	4	2	3
(c)	3	2	4	1
(d)	3	4	2	1

5. Klebsiella pneumonia has the following characteristics **except**:

- (a) Upper lobes are frequently involved
- (b) Pneumatocoele may occur commonly
- (c) Empyema is much more common
- (d) Lung abscess formation is very uncommon

6. Match List I with List II and select the correct answer using the code given below the lists:

List-I (Disease)

- A. Bagassosis
- B. Byssinosis
- C. Farmer's lung
- D. Wood worker's lung

List-II (Antigen leading to hypersensitivity pneumonitis)

- 1. Oak, Cedar, Pine dust
- 2. Moldy hay
- 3. Cotton
- 4. Sugarcane dust

Code:

	A	B	C	D
(a)	4	3	2	1
(b)	4	2	3	1
(c)	1	3	2	4
(d)	1	2	3	4

7. Which one of the following is **not** likely to be associated with pulmonary fibrosis?
- (a) Coal miners' lung
 - (b) Primary biliary cirrhosis
 - (c) Asbestosis
 - (d) Ankylosing spondylitis
8. Which of the following is/are a feature/features of severity in immediate assessment of acute severe asthma?
- 1. Pulse rate >110 per min
 - 2. Pulsus paradoxus
 - 3. Unable to speak in sentences
- Select the correct answer using the code given below:
- (a) 1 only
 - (b) 2 and 3 only
 - (c) 1 and 3 only
 - (d) 1, 2 and 3
9. Cavitating pulmonary lesions can be seen in the following **except**:
- (a) Sarcoidosis
 - (b) Tuberculosis
 - (c) Carcinoma of lung
 - (d) Histoplasmosis
10. A 35 year old 40 kg male patient was diagnosed to be a case of pulmonary tuberculosis. The appropriate conventional regimen of antitubercular drugs would be:
- (a) Rifampicin 450 mg + Isoniazid 300 mg + Pyrazinamide 1500 mg
 - (b) Rifampicin 600 mg + Isoniazid 300 mg + Pyrazinamide 1000 mg
 - (c) Rifampicin 450 mg + Isoniazid 200 mg + Pyrazinamide 1000 mg
 - (d) Rifampicin 450 mg + Isoniazid 200 mg + Pyrazinamide 1500 mg
11. Which of the auscultatory signs is absent in mitral stenosis in the presence of atrial fibrillation?
- (a) Mid diastolic murmur
 - (b) Pre -systolic accentuation
 - (c) Variable first heart sound
 - (d) P₂ accentuation

12. Which one of the following is not recommended in immediate treatment of acute severe asthma?
- (a) Oxygen supplementation
 - (b) High doses of inhaled B₂ –adrenoreceptor agonists
 - (c) Systemic corticosteroids
 - (d) Intravenous aminophylline
13. Which one of the following is **not** a feature of type 2 respiratory failure ?
- (a) pCO₂ 38 mmHg, and pO₂ 50 mmHg
 - (b) pCO₂ 68 mmHg, and pO₂ 50 mmHg
 - (c) Papilloedema
 - (d) Asterixis
14. Which of the following drugs is **not** given in dilated cardiomyopathy?
- (a) Beta blocker
 - (b) Calcium channel blocker
 - (c) Spiranolactone
 - (d) ACE inhibitors
15. Which of the following features are related to Zollinger Ellison syndrome?
1. Aggressive and refractory peptic ulceration
 2. Unregulated gastrin release
 3. Beta islet cell tumour of pancreas
 4. Diarrhoea present in upto 50% cases
- Select the correct answer using the code given below:
- (a) 1 and 2 only
 - (b) 3 and 4
 - (c) 1, 2 and 3
 - (d) 1, 2 and 4
16. In which of the following diseases, primary skin lesions are **not** seen?
- (a) Leptospirosis
 - (b) SLE
 - (c) Hepatitis-B
 - (d) Infectious mononucleosis

17. Which of the following is **not** a common feature of hypersensitivity pneumonitis?
(a) Raised C-Reaction Protein
(b) Chest X-ray may be normal
(c) Lung biopsy may be diagnostic
(d) Eosinophilia
18. Consider the following statements with regard to duodenal ulcers:
1. They occur most often in the second part of duodenum.
2. Infection with *H. pylori* and NSAID-induced injury account for the majority of duodenal ulcers.
3. Malignant duodenal ulcers are extremely rare.
4. Eradication of *H. pylori* has greatly reduced the recurrence rates in duodenal ulcers.
Which of the above statements is/are correct?
(a) 1 and 3 only
(b) 2, 3 and 4 only
(c) 1, 2 and 4 only
(d) 1, 2, 3, and 4
19. Carcinoid tumours commonly arise from:
(a) G. cells in pancreas
(b) Argentaffin cells of small intestine
(c) Pancreatic endocrine tumour
(d) Colon polyps
20. Which of the following viral markers signifies the ongoing viral replication in the case of Hepatitis-B infection?
(a) Anti-HBs
(b) Anti-HBc
(c) HBe Ag
(d) HBs Ag
21. The following may result in polyuria **except**:
(a) Chronic renal failure
(b) Hypoadrenalism
(c) Hypercalcaemia
(d) Lithium carbonate therapy

22. Regarding adult polycystic kidney disease, which one of the following statements is **not** correct?
- Inherited as autosomal dominant with 100% penetrance
 - Often associated with hepatic cysts
 - Associated with increased incidence of subarachnoid haemorrhage
 - Renal cell carcinoma is a frequent association
23. Which of the following is **not** a feature of chronic renal failure?
- Hyperparathyroidism
 - Osteomalacia
 - Hyperthyroidism
 - Decreased $1, 25(\text{OH})_2$ vitamin D_3 level
24. A patient with past history of recurrent headache, presents with irregular, dazzling, enlarging visual phenomena that obstructs vision in the affected region and remains for several minutes. The symptoms are indicative of:
- Acute angle closure glaucoma
 - Retinal detachment
 - Migraine
 - Intumescent cataract

25. Match List-I with List-II and select the correct answer using the code given below the lists:

	<i>List-I (Disease)</i>				<i>List-II (Cause)</i>			
A.	Macrocytic anaemia				1.	Iron deficiency		
B.	Microcytic anaemia				2.	Hypothyroidism		
C.	Hemolytic anaemia				3.	Vitamin B_{12} deficiency		
D.	Megaloblastic anaemia				4.	Alpha methyl dopa		

Code:

	A	B	C	D
(a)	3	1	4	2
(b)	3	2	1	4
(c)	2	1	4	3
(d)	1	4	3	2

26. Haemolysis in G6PD (glucose 6 phosphate dehydrogenase) enzyme deficiency may occur with all of the following drugs **except**:
- (a) Primaquine
 - (b) Phenacetin
 - (c) Probenecid
 - (d) Penicillin

27. Match List-I with List-II and select the correct answer using the code given below the lists:

List-I (Blood picture)

List-II (Type of Anaemia)

- | | |
|---|---|
| A. Microcytic, hypochromic red cells | 1. Vitamin B ₁₂ deficiency anaemia |
| B. Macrocytic, hypochromic red cells | 2. Thalassemia major |
| C. Large number of early, intermediate and late erythroblasts | 3. Aplastic anaemia |
| D. Low reticulocyte count | 4. Iron-deficiency anaemia |

Code:

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

28. Which of the following conditions does **not** cause pancytopenia?
- (a) Hypersplenism
 - (b) Aplastic anaemia
 - (c) Cancer infiltrating the bone-marrow
 - (d) Haemolysis from G6PD enzyme deficiency

29. Which of the following drugs does **not** cause oedema?
 (a) Growth hormone
 (b) Beta blocker
 (c) Anabolic steroids
 (d) Calcium-channel blockers
30. A patient of hypoglycemia fails to regain consciousness after blood glucose is restored to normal. The complication that carries high mortality and morbidity is:
 (a) Cerebral oedema
 (b) Lacunar infarct
 (c) Post ictal state
 (d) Cerebral haemorrhage
31. An adult patient presents with systemic hypertension, renal calculus disease and peptic ulcer disease. Which one of the following is most likely occurrence in this case?
 (a) Milk – alkali syndrome
 (b) Hypervitaminosis – D
 (c) Primary hyperparathyroidism
 (d) Tubulo – interstitial renal disease

32. Match List-I with List-II and select the correct answer using the code given below the lists :

List-I (types of hyperlipidemia)

List-II (feature)

- | | |
|-----------------------------------|---|
| A. Hyperchylomicronaemia | 1. Palmar plantar xanthoma |
| B. Hyperbetalipoproteinaemia | 2. Subcutaneous extensive tendon xanthoma |
| C. Type III hyperlipoproteinaemia | 3. Eruptive xanthoma over buttocks |
| D. Familial LPL deficiency | 4. Triglyceride level above 1000 mg % |

Code:

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

33. Which of the following is **least** suggestive of poliovirus infection?
- (a) Low grade fever and malaise with complete resolution in 2 to 3 days
 - (b) Biphasic illness with several days of fever, then meningeal symptoms and asymmetric flaccid paralysis 5 to 10 days later
 - (c) Descending motor paralysis with preservation of tendon reflexes and absent sensation
 - (d) Failure to isolate a virus from the CSF in the presence of marked meningismus
34. The following conditions can cause interstitial nephritis **except**:
- (a) Infections
 - (b) Hepatorenal syndrome
 - (c) Lymphoma
 - (d) Sarcoidosis
35. Which of the following are characteristics features of tuberculoid leprosy?
- 1. Type 2 lepra reaction
 - 2. A few lesions with well demarcated edges
 - 3. Early and marked nerve damage
 - 4. Tendency to heal spontaneously
- Select the correct answer using the code given below:
- (a) 1, 2 and 3
 - (b) 2, 3 and 4
 - (c) 1 and 4
 - (d) 2 and 3 only
36. Which of the following immunological reactions occurs in Goodpasture syndrome ?
- (a) Type I atopy
 - (b) Type II cytotoxic
 - (c) Type III immune complex
 - (d) Type IV cell mediation
37. Regarding erythema nodosum leprosum, which one of the following is **not** correct?
- (a) It is usually during initiation of treatment
 - (b) Tender subcutaneous nodules observed
 - (c) Lymphadenopathy is common
 - (d) Ophthalmic involvement can occur

38. The most common microorganism known to cause tropical pyomyositis is :
- (a) *Streptococcus viridans*
 - (b) *Staphylococcus albus*
 - (c) *Klebsiella pneumonia*
 - (d) *staphylococcus aureus*
39. Following are the common features of Cushing's syndrome **except**:
- (a) Truncal obesity
 - (b) Osteoporosis
 - (c) Distal myopathy
 - (d) Glucose intolerance
40. A farmer presents with history of fever and chills, severe bodyache, headache, conjunctival suffusion and jaundice. He has severe muscle tenderness, leukocytosis and mild uraemia. The most likely diagnosis would be:
- (a) Leptospirosis
 - (b) Typhoid fever
 - (c) Typhus
 - (d) Viral hepatitis
41. Consider the following statements regarding falciparum malaria:
1. The mortality rises steeply when the proportion of infected erythrocytes increases above 3 percent.
 2. The patient may develop hypoglycemia even when not treated with quinine.
- 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
42. "Loeffler's syndrome" is characterized by:
- (a) Transient, migratory pulmonary infiltrations
 - (b) Fibrosis in the pulmonary apices
 - (c) Fibrosis in the base of one or both lungs
 - (d) Miliary mottling

43. Keyboard operators and typists are especially susceptible to injury of the
- Axillary nerve
 - Median nerve
 - Ulnar nerve
 - Radial nerve
44. Which of the following is **not** a clinical feature of Kwashiorkor?
- Bipedal oedema
 - Visible severe wasting
 - Low serum albumin
 - Moon face
45. Match List I with List II and select the correct answer using the code given below the lists:

List I (Clinical features)

- Flaky paint rashes of lower extremity
- Goose-hump skin lesion
- Confabulation
- Dementia

List II (Deficiency of)

- Niacin
- Thiamine
- Zinc
- Vitamin A

Code:

	A	B	C	D
(a)	1	2	4	3
(b)	1	4	2	3
(c)	3	4	2	1
(d)	3	2	4	1

46. Consider the following:
- Psoriasis
 - Atopic dermatitis
 - Leprosy
 - Vitiligo

PUVA therapy can be used to treat which of the above?

- 1 and 2 only
- 2 and 3
- 1, 2 and 4
- 3 and 4

47. The cutaneous viral infection which is commonly seen in children and characterized by single or multiple pearly-white skin colored smooth dome shaped papules with central pitting is:
- Chicken pox
 - Herpes zoster
 - Molluscum contagiosum
 - Verruca vulgaris
48. Consider the following statements about polyarticular juvenile rheumatoid arthritis:
- It is more common in girls
 - Five or more joints are affected within the first six months of onset
 - Uveitis occurs in 95% patients
 - Rheumatoid factor may be negative
- Which of the statements given above are true ?
- 1 and 4 only
 - 1, 2 and 4
 - 2, 3 and 4
 - 2 and 3 only
49. Consider the following statements regarding schizophrenia:
- Patient feels that other persons put thoughts into his mind
 - Patient feels that he is being punished for his wrong doings
 - He may be in a state of catatonia
- Which of the statements given above is/are correct?
- 1 only
 - 2 and 3 only
 - 1 and 3 only
 - 1, 2 and 3
50. Lithium carbonate is employed in the following conditions **except**:
- To treat acute episodes of mania
 - To prevent recurrence of mania
 - To prevent depression in bipolar disorders
 - To prevent depression in unipolar disorders
51. The following conditions can cause protein-losing enteropathy **except**:
- Ulcerative colitis
 - Irritable bowel syndrome
 - Celiac disease
 - Lymphoma

52. Which of the following ocular findings is a component of Foville syndrome?
 (a) Lateral gaze palsy
 (b) 6th N Palsy
 (c) 3rd N Palsy
 (d) Nystagmus
53. The following features are suggestive of Behcet's syndrome **except**:
 (a) Orogenital ulcers
 (b) Polyarthritis
 (c) Uveitis
 (d) Livedo reticularis
54. Match List-I with List-II and select the correct answer using the code given below the lists:

List-I (drug)

- A. Phenytoin sodium
 B. Para aminosalicylic acid
 C. Rifampicin
 D. Streptomycin

List-II (side effect)

1. Hypothyroidism
 2. Hepatotoxicity
 3. 8th nerve damage
 4. Cerebellar dysfunction

Code:

	A	B	C	D
(a)	4	1	2	3
(b)	4	2	1	3
(c)	3	2	1	4
(d)	2	1	4	3

55. Match List-I with List-II and select the correct answer using the code given below the lists:

List-I (disease state)

- A. Pemphigus vulgaris
- B. Psoriasis
- C. Turner syndrome
- D. Primary hyperparathyroidism

List-II (clinical feature)

- 1. Acro-osteolysis
- 2. Brachydactyly
- 3. Koebner phenomenon
- 4. Nikolsky sign

Code:

	A	B	C	D
(a)	1	2	3	4
(b)	1	3	2	4
(c)	4	2	3	1
(d)	4	3	2	1

56. A 10 year old child “blanks out” in class (e.g. stops talking midsentence and then continues as if nothing had happened). During spells there is slight quivering of lips. What is the most probable diagnosis?
- (a) Mutism
 - (b) Autism
 - (c) Adjustment disorder
 - (d) Absence seizure
57. A 45 year old man presents with hematuria. Renal biopsy demonstrates a focal necrotizing glomerulitis with crescent formation. The patient gives history of intermittent hemoptysis and intermittent chest pain of moderate intensity. A previous chest X-ray had demonstrated multiple opacities, some of which were cavitated. The patient also has chronic cold like nasal symptoms. What is the most probable diagnosis?
- (a) Aspergillosis
 - (b) Polyarteritis nodosa
 - (c) Renal carcinoma metastatic to lung
 - (d) Wegner’s granulomatosis
58. A 28 year old woman presented with high grade fever, cough, diarrhea and mental confusion for 4 days. X-ray chest revealed bilateral pneumonitis. Search for etiology will most likely reveal
- (a) *Streptococcus pneumoniae*
 - (b) *Staphylococcus aureus*
 - (c) *Legionella pneumophila*
 - (d) *Pseudomonas aeruginosa*

59. Congenital heart disease associated with pre-excitation is:
(a) Atrial septal defect
(b) Bicuspid aorta valve
(c) Ebstein's anomaly
(d) Patent ductus arteriosus
60. Hockey-stick appearance in echocardiography is a feature of:
(a) Mitral stenosis
(b) Mitral incompetence
(c) Aortic stenosis
(d) Aortic regurgitation
61. Hutchinson sign is a feature of ocular involvement by which of the following viruses?
(a) Herpes simplex
(b) Epstein-Barr virus
(c) Cytomegalovirus
(d) Herpes zoster
62. Well recognised side-effects of prolonged phenytoin use may result in all **except**:
(a) Hirsutism
(b) Lymphadenopathy
(c) Ataxia
(d) Hypoglycaemia
63. First order neurons in the visual pathway are constituted by:
(a) Bipolar cells
(b) Amacrine cells
(c) Ganglion cells
(d) Rods and cones
64. Level of which hormone is likely to increase after hypothalamic ablation?
(a) Growth hormone
(b) Prolactin
(c) FSH
(d) ACTH
65. A 50 year old patient with signs of peripheral neuropathy is found to have diabetes mellitus. He has no ocular symptoms. When would you refer this patient for retina evaluation?
(a) When he develops ocular symptoms
(b) Immediately
(c) If he needs insulin for blood sugar
(d) Five years after diagnosis

66. Which one of the following tests has the highest chance of detecting HIV infection in a blood donor during the window period?
- (a) Demonstration of antibody to HIV by ELISA
 - (b) CD₄ count
 - (c) P²⁴ antigen detection
 - (d) Western blot test
67. The following are exotoxin-mediated infections **except**:
- (a) Cholera
 - (b) Typhoid
 - (c) Botulism
 - (d) Tetanus
68. The following tests can be used for diagnosing celiac disease **except**:
- (a) Anti-gliadin antibodies
 - (b) Anti-nuclear antibodies
 - (c) Anti-endomycial antibodies
 - (d) Anti-tissue transglutaminase antibodies
69. Which one of the following is **not** an early complication of acute myocardial infarction?
- (a) Papillary muscle dysfunction
 - (b) Ventricular septal defect
 - (c) Pericarditis
 - (d) Dressler's syndrome
70. Consider the following conditions:
1. Thyrotoxicosis, phaeochromocytoma and acromegaly
 2. Haemochromatosis
 3. Conn's syndrome (primary hyperaldosteronism)
 4. Pancreatic carcinoma
- Which of the above may result in secondary diabetes mellitus?
- (a) 2 and 3 only
 - (b) 1, 2 and 4
 - (c) 1, 3 and 4
 - (d) 1, 2 and 3

71.

Consider the following statements:

Gastric lavage is contraindicated in children in case of

1. iron poisoning
2. kerosene poisoning
3. corrosive poisoning
4. aspirin poisoning

Which of the above statements are correct?

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

72.

Consider the following:

1. Visible gastric peristalsis
2. Bilious vomiting
3. Palpable mass
4. Melena

Which of the above is/are the feature/features of infantile hypertrophic pyloric stenosis?

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

73. A very large ventricular septal defect should be operated :

- (a) In school going age
- (b) Only if CHF is uncontrolled
- (c) Before six months of age
- (d) Soon after birth

74. A 2 year old boy is being evaluated for severity of malnutrition. The child weighs 7 kg and measures 74 cm in length. Expected (median) weight for height, and height for age for this child are 9 kg and 86 cm respectively. According to WHO classification of undernutrition, which of the following is the correct category for this child?

- (a) Wasted, stunted
- (b) Wasted, severely stunted
- (c) Severely wasted, stunted
- (d) Severely wasted, severely stunted

75. Catch-up diet for treatment of severe malnutrition in children should achieve the following:
- (a) Calorie 150-220 kcal/kg/d; protein 4-6 g/kg/d
 - (b) Calorie 125-175 kcal/kg/d; protein 4-6 g/kg/d
 - (c) Calorie 125-175 kcal/kg/d; protein 2-4 g/kg/d
 - (d) Calorie 150-220 kcal/kg/d; protein 2-4 g/kg/d

76. Which one of the following is **not** a feature of vitamin D deficiency rickets?
- (a) Decrease in parathyroid hormone level
 - (b) Decrease in gut calcium absorption
 - (c) Decrease in renal phosphate excretion
 - (d) Increase in serum alkaline phosphatase

77. A child presents with moderate fever for two months. On examination, she had moderate anaemia and a few petechia. All the following can be the diagnosis **except**:

- (a) Acute leukemia
- (b) Tuberculosis
- (c) Typhoid
- (d) Juvenile rheumatoid arthritis

78. Which of the following statements is true regarding juvenile chronic myeloid leukemia?

- (a) Philadelphia chromosome is negative.
- (b) Thrombocytopaenia is uncommon.
- (c) The prognosis is better than the adult form of chronic myeloid leukemia.
- (d) Single agent chemotherapy with busulfan or hydroxyurea can achieve remission.

79.

Consider the following features:

1. X-linked recessive inheritance
2. Atopic dermatitis
3. Low serum levels of IgA

Which of the above is/are the characteristic features of Wiskott-Aldrich syndrome?

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

80. Lisch nodules are seen in which of the following conditions?

- (a) von Recklinghausen's disease
- (b) Louis-bar syndrome
- (c) Tuberous sclerosis
- (d) von Hippel-Lindau syndrome

81. A 5 year old child presented with microcytic hypochromic anaemia. Serum ferritin is low. Which of the following is **least** likely?

- (a) Celiac disease
- (b) Thalassemia major
- (c) Nutritional anaemia
- (d) Paroxysmal nocturnal haemoglobinuria

82. An infant can sit leaning forward on his hands. He bounces actively when made to stand. He laughs aloud and becomes concerned when the mother moves away. What is his most likely age?

- (a) 12 weeks
- (b) 16 weeks
- (c) 22 weeks
- (d) 28 weeks

83.

Match List I with List II and select the correct answer using the code given below the lists:

<i>List I (Association with hepatomegaly)</i>	<i>List II (Presentation)</i>
A. Skin lesion	1. Histiocytosis
B. Engorged neck veins	2. Galactosemia
C. Cataract	3. Toxoplasmosis
D. Hydrocephalus	4. Constrictive pericarditis

Code:

	A	B	C	D
(a)	1	4	2	3
(b)	2	3	4	1
(c)	4	1	3	2
(d)	3	4	2	1

84. The most common type of juvenile rheumatoid arthritis is:

- (a) Rheumatoid factor positive polyarticular
- (b) Rheumatoid factor negative polyarticular
- (c) Pauciarticular type
- (d) Systemic onset type

85. An 8 year old boy presented to the Emergency Department on the fourth day of fever during a dengue epidemic. He had a mild erythematous rash on his body and no bleeding from any site. His BP was 110/70 mmHg and pulse was 94/minute. Hess test was positive. Dengue serology report is awaited. Platelet count is $30,000/\text{cm}^3$ and PCV: 36%. What is the treatment of choice?

- (a) Plenty of oral/ IV fluids and observation
- (b) Emergency platelet transfusion to raise platelets above $50,000/\text{cm}^3$
- (c) IV anti-D immune globulin
- (d) Give antipyretic and wait for dengue serology report

86.

Match List I with List II and select the correct answer using the Code given below the lists:

List I (Antidote)

- A. Calcium sodium edetate
- B. Sodium nitrite
- C. Methylene blue
- D. Atropine

List II (Poison/Drug)

- 1. Cyanide
- 2. Nitrobenzene
- 3. Lead
- 4. Organophosphate
- 5. Kerosene

Code:

	A	B	C	D
(a)	1	2	3	4
(b)	2	3	4	1
(c)	3	1	2	5
(d)	3	1	2	4

87.

Match List I with List II and select the correct answer using the code given below the lists:

List I (Diseases)

- A. Thalassemia major
- B. Iron deficiency anaemia
- C. Nephrotic syndrome
- D. Acute iron poisoning

List II (Laboratory parameters)

- 1. Increased serum iron, decreased TIBC, increased serum ferritin
- 2. Decreased serum iron, increased TIBC, decreased serum ferritin
- 3. Decreased serum iron, decreased TIBC, increased serum ferritin
- 4. Increased serum iron, normal TIBC, normal serum ferritin

Code:

	A	B	C	D
(a)	4	3	2	1
(b)	4	2	3	1
(c)	1	2	3	4
(d)	1	3	2	4

88.

A previously well 2 year old boy presents with a brief generalized seizure. There is no past or family history of seizures. On examination, child is alert, active, febrile with axillary temperature of 39.4⁰C. Except for bilateral tonsillar enlargement and congestion, systemic examination is normal. Management at this time may include:

- 1. Immediate reduction of body temperature
- 2. Intravenous diazepam and phenytoin, followed by a lumbar puncture
- 3. Institution of phenytoin for maintenance therapy for at least one year
- 4. Rectal diazepam every 8 hourly for 2-3 days to reduce the risk of recurrence

Select the correct answer using the code given below:

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

89.

Match List I with List II and select the correct answer using the code given below the lists:

List I (Endocrinological disorders)

- A. Hypothyroidism
- B. Cushing's syndrome
- C. Pheochromocytoma
- D. Hypoparathyroidism

List II (Results of investigations)

- 1. Increased urinary excretion of catecholamines
- 2. Increased urinary 17-ketosteroids
- 3. Hypocalcaemia and hyperphosphataemia
- 4. TSH levels are increased and T_3 , T_4 levels are decreased

Code:

	A	B	C	D
(a)	4	2	1	3
(b)	4	1	2	3
(c)	3	2	1	4
(d)	3	1	2	4

90.

Match List I with List II and select the correct answer using the Code given below the lists:

List I (Clinical presentation)

- A. Extraparamidal cerebral palsy
- B. Spastic quadriplegia
- C. Spastic hemiplegia
- D. Spastic diplegia

List II (Disease pathology)

- 1. Stroke
- 2. Multicystic encephalomalacia
- 3. Periventricular leukomalacia
- 4. Bilirubin encephalopathy

Code:

	A	B	C	D
(a)	3	1	2	4
(b)	1	2	3	4
(c)	4	3	2	1
(d)	4	2	1	3

91.

Consider the following pairs:

<i>National Park</i>		<i>State</i>
1. Keoladeo Ghana National Park	Rajasthan
2. Sultanpur National Park	Uttar Pradesh
3. Valley of Flowers National Park	Himachal Pradesh

Which of the pairs given above is/are correctly matched?

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

92. The Himalayas have snowline at higher altitude compared to that in the Alps mountains.

This is because

- (a) Himalayas are higher than the Alps
- (b) Himalayas face the monsoon winds
- (c) Himalayas are located in lower latitudes
- (d) Himalayas have denser forest cover

93.

The knowledge of genome sequence is important to

- 1. understand how genes work together in the growth and development of an entire organism.
- 2. study the regulatory regions in the genome outside the gene that controls expression of genes.

Select the correct answer using the code given below:

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

94.

Besides the Sunderbans, mangrove forests are also to be found in

1. Bhitarkanika
2. Godavari delta
3. Pichavaram
4. Kaveri (Cauvery) delta

Select the correct answer using the code given below:

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

95.

Which of the following statements is **not** correct?

- (a) In the preparation of vinegar in the households, dried fruits can be used.
- (b) Vinegar making involves fermentation by yeast.
- (c) Vinegar is actually acetic acid.
- (d) A fruit juice containing 5% or more sugar cannot be made into vinegar in the households.

96. Which one of the following viruses was exploited to create genetically engineered virus "onyx-15", an oncolytic virus to target and eliminate cancer cells?

- (a) Parvovirus
- (b) Adenovirus
- (c) Pox virus
- (d) Herpes simplex virus

97. Which one of the following is **not** included in the Preamble of the Constitution of India?

- (a) Secular Republic
- (b) Socialist Republic
- (c) Federal Republic
- (d) Democratic Republic

98.

Consider the following milk borne diseases:

1. Brucellosis
2. Listeriosis
3. Salmonellosis

Which of the above can be controlled by pasteurization?

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

99. Who of the following is the Chairman of Rajya Sabha?

- (a) The Prime Minister
- (b) The Speaker of Lok Sabha
- (c) The Vice President of India
- (d) The President of India

100.

Consider the following statements:

1. Fly ash can be added to agricultural soil to enhance its water holding capacity.
2. Fly ash can be used in the manufacture of bricks and blocks for construction purposes.

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

101. "Ecological niche" refers to the

- (a) amount of autotrophs available for consumption of the grazing population.
- (b) relationship of an animal with the surrounding animals.
- (c) position of an animal with reference to its species composition.
- (d) positional and functional relationship of an organism in an ecosystem.

102. Which one the following is **not** required for the formation of photochemical smog?

- (a) Oxygen
- (b) Oxides of nitrogen
- (c) Carbon monoxide
- (d) Sunlight

103. The 'Nirbhaya Fund' set up by the Government of India is for:

- (a) Ensuring the safety of women
- (b) Promoting the financial literacy of rural poor
- (c) Promoting Self-Help Groups of women
- (d) Providing free education

104.

What is "Solar Impulse 2", which was recently in the news?

- (a) A Central Government sponsored scheme to promote the production of solar energy
- (b) A spacecraft sent by NASA to study a comet moving towards Sun
- (c) A project of India in collaboration with NASA to study the impact of solar flares on Earth
- (d) A round-the-world flight powered only by the solar energy

105.

Consider the following statements:

1. In food preservation by irradiation, ionising rays are used.
2. Irradiation does not affect the colour, odour, taste, pH and levels of vitamin contents in the foods.

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

106.

Kutch (in Gujarat) has the existence of a large number of salt pans. What could be the most valid reason/reasons for this?

1. Existence of creeks and mudflats
2. Higher evaporation rate
3. Presence of vast intertidal zone

Select the correct answer using the code given below:

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

107. Most of the ozone in the atmosphere is concentrated in the:

- (a) Ionosphere
- (b) Mesosphere
- (c) Stratosphere
- (d) Troposphere

108.

Consider the following:

- 1. Lactic acid
- 2. Sorbic acid
- 3. Sulphurous acid

Which of the above are food preservatives?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) None of these
- (d) 1, 2 and 3

109.

With reference to “DNA Microarray” technology, which of the following statements is/are correct?

- 1. It helps in identifying the genes involved in a disease by comparing the gene expressions between the tissues from a healthy and an infected person.
- 2. It allows visualizing the activity of hundreds of genes simultaneously.

Select the correct answer using the code given below:

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

110. Artemisinin is a drug derived from a:

- (a) Plant
- (b) Fungus
- (c) Rock
- (d) Blue-green alga

111.

Which of the following can be used to extract heavy metals from water?

1. Aluminium oxide
2. Cellulose
3. Silica

Select the correct answer using the code given below:

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

112. Which one of the following represents the correct sequence of vegetational transitions with increasing latitude?

- (a) Rain forest- deciduous forest- coniferous forest
- (b) Rain forest- coniferous forest- deciduous forest
- (c) Deciduous forest- rain forest- coniferous forest
- (d) Coniferous forest- rain forest- deciduous forest

113.

Consider the following statements:

1. LED lamps have shorter life span as compared to incandescent bulbs.
2. LED lamps are made by using semi-conductor material.
3. LED lamps are more expensive than conventional sources of lighting.

Which of the statements given above are correct?

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

114. In India, ecologists consider “sacred groves” very valuable because of their role in

- (a) meeting fuelwood and medicinal needs of local people.
- (b) protection of biodiversity that has vanished from surrounding areas due to exploitation by man.
- (c) stabilization of climate and reduction of global warming.
- (d) socio-cultural and religious interactions among traditional communities of different regions.

115. The “Cry1Ac”, often in news is

- (a) a gene that enables some crop plants to fight pests.
- (b) another strain of virus responsible for bird-flue that occurred in China.
- (c) a gene used in making the transgenic rice known as “golden rice”.
- (d) None of these

116.

Excessive accumulation of nitrates in water bodies can result in:

1. Proliferation of biodiversity
2. Algal blooms
3. Acidification

Select the correct answer using the code given below:

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

117.

According to the United Nations Convention on the Rights of the Child, which of the following is/are the right/rights of the children?

1. Right to expression
2. Right to recreation
3. Right to name and nationality

Select the correct answer using the code given below:

- (a) 1 and 2 only
- (b) 3 only
- (c) 1, 2 and 3
- (d) None of these is a Right of the children

118.

In the context of genetic engineering, which of the following statements is/are correct?

1. Vector mediated recombinant gene transfer can be done from one eukaryote to another eukaryote only.
2. Vector mediated recombinant gene transfer can be done from animal cell to plant cell.

Select the correct answer using the code given below:

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

119. What is the importance of a plant named jatropha that is frequently in the news?

- (a) It is a wild variety of rice of North-east India rich in vitamin A and iron.
- (b) it is a bio-diesel yielding plant that can grow well in areas of low rainfall.
- (c) It is a genetically modified pest-resistant potato plant.
- (d) It is a highly drought-resistant wild variety of pearl millet adopted for cultivation in dry areas of South India.

120.

Gene silencing means a gene which would be expressed under normal circumstances is switched off by cell machinery. Which one of the following cellular components is **not** involved in gene silencing?

- (a) Micro RNA
- (b) Double stranded RNA
- (c) Ribosomal RNA
- (d) Si RNA