

DO NOT OPEN THIS TEST BOOKLET UNTIL YOU ARE ASKED TO DO SO

T.B.C. : P-DNT-M-HNA

TEST BOOKLET

Test Booklet Series

**GENERAL ABILITY,
GENERAL MEDICINE,
PAEDIATRICS****Paper I****A****Time Allowed : Two Hours****Maximum Marks : 250****INSTRUCTIONS**

1. IMMEDIATELY AFTER THE COMMENCEMENT OF THE EXAMINATION, YOU SHOULD CHECK THAT THIS TEST BOOKLET **DOES NOT** HAVE ANY UNPRINTED OR TORN OR MISSING PAGES OR ITEMS, ETC. IF SO, GET IT REPLACED BY A COMPLETE TEST BOOKLET.
2. ENCODE CLEARLY THE TEST BOOKLET SERIES A, B, C OR D AS THE CASE MAY BE IN THE APPROPRIATE PLACE IN THE ANSWER SHEET.
3. You have to enter your Roll Number on the Test Booklet in the Box provided alongside. **DO NOT** write *anything else* on the Test Booklet.
4. This Test Booklet contains 120 items (questions). Each item comprises four responses (answers). You will select the response which you want to mark on the Answer Sheet. In case you feel that there is more than one correct response, mark the response which you consider the best. In any case, choose **ONLY ONE** response for each item.
5. You have to mark all your responses **ONLY** on the separate Answer Sheet provided. See directions in the Answer Sheet.
6. All items carry equal marks.
7. Before you proceed to mark in the Answer Sheet the response to various items in the Test Booklet, you have to fill in some particulars in the Answer Sheet as per instructions sent to you with your Admission Certificate.
8. After you have completed filling in all your responses on the Answer Sheet and the examination has concluded, you should hand over to the Invigilator **only the Answer Sheet**. You are permitted to take away with you the Test Booklet.
9. Sheets for rough work are appended in the Test Booklet at the end.
10. **Penalty for wrong answers :**
THERE WILL BE PENALTY FOR WRONG ANSWERS MARKED BY A CANDIDATE IN THE OBJECTIVE TYPE QUESTION PAPERS.
 - (i) There are four alternatives for the answer to every question. For each question for which a wrong answer has been given by the candidate, one-third (0.33) of the marks assigned to that question will be deducted as penalty.
 - (ii) If a candidate gives more than one answer, it will be treated as a **wrong answer** even if one of the given answers happens to be correct and there will be same penalty as above to that question.
 - (iii) If a question is left blank i.e., no answer is given by the candidate, there will be **no penalty** for that question.

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1. Roth's spots are found in
 - (a) Acute rheumatic fever
 - (b) Congestive cardiac failure
 - (c) Infective endocarditis
 - (d) Restrictive cardiomyopathy
2. A 42-year-old smoker has developed an acute anterior wall myocardial infarction. The coronary angiogram done on him is likely to show an obstruction of the
 - (a) Left anterior descending artery
 - (b) Left posterior descending artery
 - (c) Right coronary artery
 - (d) Circumflex artery
3. As regards Kala-azar, the following statements are correct *except*
 - (a) It is caused by *Leishmania donovani*
 - (b) It is transmitted by the bite of male sand flies
 - (c) It is the promastigote form of parasite, which is transmitted to the human host at the time the sand fly bites the host
 - (d) A patient may develop post Kala-azar dermal leishmaniasis during the course of therapy or a few months later
4. The criteria for carrying out a mitral valvuloplasty include the following *except*
 - (a) Significant symptoms
 - (b) Isolated mitral stenosis
 - (c) Mobile non-calcified valve
 - (d) Left atrial thrombus

5. "Cannon" *a* wave is seen in
 - (a) Complete heart block
 - (b) Left ventricular hypertrophy
 - (c) Mitral stenosis
 - (d) Right ventricular hypertrophy
6. Match List I with List II and select the correct answer using the code given below the Lists :

List I (Genetic disorder)	List II (Gene defect)
A. Familial breast cancer	1. FGFR
B. Marfan's syndrome	2. FBN-1
C. Cystic fibrosis	3. BRCA-1
D. Achondroplasia	4. CFTR

Code :

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

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

List I (Disease)	List II (Drugs)
A. Parkinsonism	1. Riluzole
B. Migraine	2. Levodopa
C. Motor Neuron Disease	3. Ergotamine
D. Multiple sclerosis	4. Interferon- β 1a

Code :

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

8. On an E.C.G. tracing, the presence of right atrial hypertrophy is suggested by:
- (a) Tall spiky P wave
 - (b) Widened P wave
 - (c) Prolonged P-R interval
 - (d) Increased P-Q segment
9. Which one of the following is *not* raised in intravascular haemolysis?
- (a) Bilirubin
 - (b) LDH
 - (c) Reticulocyte count
 - (d) Haptoglobin
10. Which one of the following is *not* correct regarding Left Bundle Branch Block (LBBB)?
- (a) Coronary artery disease can be one of the possible aetiologies of LBBB
 - (b) ST segment elevation is an integral part of LBBB
 - (c) QRS complex is prolonged in LBBB
 - (d) Cardiomyopathy is another possible aetiology of LBBB
11. All of the following are excitatory neurotransmitters *except*:
- (a) Gamma Amino Butyric Acid
 - (b) Acetylcholine
 - (c) Dopamine
 - (d) Serotonin
12. A young man is prescribed parenteral antibiotics for respiratory tract infection. He collapses immediately after receiving the first dose, with tachycardia, wheezing and a drop in blood pressure. The most appropriate immediate intervention in this situation would be to administer
- (a) Intravenous saline
 - (b) Intravenous hydrocortisone
 - (c) Subcutaneous epinephrine
 - (d) Nebulized salbutamol
13. The most common aetiology of short stature is
- (a) Thyroxine deficiency
 - (b) Growth hormone deficiency
 - (c) Systemic disease
 - (d) Constitutional growth delay
14. Which one of the following is *not* a useful drug for the initial management of a case with status epilepticus?
- (a) IV phenytoin
 - (b) IV clobazam
 - (c) IV thiopental
 - (d) IV sodium valproate
15. To complete the transfusion of a unit of packed Red Blood Cells in a patient with anaemia, how much time should be taken optimally?
- (a) 1-3 hours
 - (b) 4-5 hours
 - (c) 6-7 hours
 - (d) 8-9 hours

16. Massive splenomegaly is *not* a feature of

- (a) Acute lymphocytic leukaemia
- (b) Chronic myeloid leukaemia
- (c) Myelofibrosis with myeloid metaplasia
- (d) Hairy Cell leukaemia

17. Which of the following is *not* a correct combination between a brain area and its function ?

- (a) Limbic network : Retentive memory
- (b) Frontoparietal network : Face and object recognition
- (c) Perisylvian network : Language
- (d) Prefrontal network : Attention and behaviour

18. The term Vincent's angina is used for

- (a) Ischaemic chest pain, characterised by ST segment depression on E.C.G.
- (b) Post myocardial infarction angina
- (c) Painful, deep, sloughing infection of the gums from commensal organisms of the mouth
- (d) Chest pain in a case of achalasia cardia

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

List I
(Phase of
jugular venous
pulse)

- A. 'y' descent
- B. 'x' descent
- C. 'v' wave
- D. 'a' wave

List II
(Mechanism)

- 1. Emptying of the blood from right atrium into right ventricle
- 2. Atrial relaxation
- 3. Filling of the right atrium from the vena cava
- 4. Onset of atrial systole

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

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

List I
(Poison)

- A. Opium
- B. Cyanide
- C. Mercury
- D. Diazepam

List II
(Antidote)

- 1. Flumazenil
- 2. Naloxone
- 3. Dimercapto-1-propane sulphate
- 4. Sodium thiosulphate

Code :

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

21. An 80-year-old man presents with breathlessness which wakes him up from sleep. His pulse is 90/min and BP is 100/60 mmHg. The examination reveals pedal oedema and basal rales in both lungs. He has dyspnoea on exertion and he has an off and on history of chest pain for the last many years. He has a soft systolic murmur at the apex. This patient may benefit from all of the following **except**
- (a) Furosemide
 - (b) ACE inhibitor
 - (c) Beta blocker
 - (d) Calcium channel blocker
22. A patient is admitted with fever and chills for the last seven days and drowsiness for the last two days. He is febrile, icteric and semiconscious with a pulse of 110/min and BP 100/70 mmHg. The peripheral smear shows the ring form of *Plasmodium falciparum* – 100 infected RBCs per 1000. The patient should be started on
- (a) Intravenous quinine
 - (b) Quinine through Ryle's tube
 - (c) Intravenous chloroquine
 - (d) Oral primaquine
23. 'Fleeting pulmonary infiltrates' on sequential chest skiagrams in an individual who suffers from asthma are characteristics of
- (a) Allergic bronchopulmonary aspergillosis
 - (b) M. tuberculosis infection
 - (c) Pneumocystis jirovecii pneumonia
 - (d) Nocardia infection
24. A young patient presenting with massive haematemesis was found to have splenomegaly. The most likely source of bleeding is
- (a) Duodenal ulcer
 - (b) Oesophageal varices
 - (c) Erosive mucosal disease
 - (d) Gastric ulcer
25. Epidemic dropsy results from
- (a) Dhatura poisoning
 - (b) Argemone poisoning
 - (c) Aluminium phosphide poisoning
 - (d) Organophosphorus poisoning
26. The drug of choice for cryptococcal meningitis is
- (a) Fluconazole
 - (b) Ketoconazole
 - (c) Amphotericin B
 - (d) Pentamidine
27. Sensory neuropathy is **not** a characteristic feature of
- (a) Lead poisoning
 - (b) Diabetes mellitus
 - (c) Beri-beri
 - (d) Chronic alcoholism

28. The following are features of distal renal tubular acidosis *except*
- (a) Low serum potassium
 - (b) Low serum chloride
 - (c) Non-anion-gap acidosis
 - (d) High urinary ammonium
29. Regarding hepatobiliary disease, which of the following statements is true ?
- (a) Hepatitis B is the most common viral cause of cirrhosis worldwide
 - (b) Fewer than 5% of patients with chronic hepatitis C will develop cirrhosis
 - (c) In India, Hepatitis B is transmitted primarily by the faeco-oral route
 - (d) Hepatitis C is a more frequent cause for fulminant hepatitis than Hepatitis B infection
30. Wide fixed splitting of the second heart sound is typical of
- (a) Atrial septal defect
 - (b) Ventricular septal defect
 - (c) Patent ductus arteriosus
 - (d) Coarctation of aorta
31. A 10-month-old girl presents with extensive pruritis over the face and lichenification and creases below the eyes. She has a family history of asthma and allergic rhinitis. The most likely diagnosis is
- (a) Atopic dermatitis
 - (b) Allergic contact dermatitis
 - (c) Seborrhoeic dermatitis
 - (d) Neurodermatitis
32. Consider the following :
- A 20-year-old dark man has hypopigmented macules over the chest, trunk and back. The KOH examination shows "spaghetti and meatball" appearance. Which of the following drugs will be appropriate in the oral treatment of this condition ?
- 1. Terbinafine
 - 2. Griseofulvin
 - 3. Itraconazole
 - 4. Ketoconazole
- Select the correct answer using the code given below :
- (a) 1 and 2
 - (b) 2 and 3
 - (c) 1 and 4
 - (d) 3 and 4
33. A 4-month-old infant presents with itchy papules and burrows on the wrist, web spaces, genitalia and trunk. The most appropriate treatment for this is
- (a) Permethrin 1% (w/w) cream
 - (b) Permethrin 5% (w/w) cream
 - (c) Gamma benzene hexachloride 1% lotion
 - (d) Benzyl benzoate 25% lotion

34. A 14-year-old girl is brought with the alleged consumption of a liquid poison. Her clinical examination reveals the pulse rate to be 52/min, BP 100/70 mmHg, and respiratory rate 8/min. She has a shallow breathing. Her skin is cold and clammy. She has excessive salivation. On auscultation of the lungs, she has crepitations. The CNS examination reveals all 4 limbs to be flaccid, and she has fasciculations. What is the most probable poison ?
- (a) Barbiturates
 - (b) Copper sulphate
 - (c) Opioids
 - (d) Organophosphorus compound
35. Beta-blockers are *not* recommended for diabetic patients who are on insulin because
- (a) They reduce the efficiency of insulin
 - (b) They mask the symptoms of hypoglycaemia
 - (c) They produce dermatitis herpetiformis
 - (d) They produce congestive heart failure
36. The important physiological function of bile acids is
- (a) They facilitate the absorption of dietary fats
 - (b) They conjugate with toxic substances, and thus facilitate their excretion
 - (c) They facilitate the excretion of breakdown products of haemoglobin
 - (d) They facilitate the absorption of vitamin B₁₂
37. Supplementation with which of the following vitamins during the antenatal period can prevent the neural tube defects in a baby ?
- (a) Riboflavin
 - (b) Pyridoxine
 - (c) Folic acid
 - (d) Cyanocobalamin
38. A 60-year-old male hypertensive had a stroke two weeks prior to this sudden attack of dyspnoea. The present ECG shows changes of S₁ Q₃ T₃ and the V/Q pulmonary scan shows major areas of reduced perfusion. What is the probable diagnosis ?
- (a) Pneumothorax
 - (b) Congestive cardiac failure
 - (c) Pulmonary thromboembolism
 - (d) Psychogenic dysfunction
39. Which of the following is *not* an inborn error of metabolism ?
- (a) Thalassaemia
 - (b) Wilson's disease
 - (c) Phenylketonuria
 - (d) Galactosaemia

40. A 24-year-old HIV positive male presents with fever, cough and breathlessness for the last one week. On clinical examination, he is emaciated, tachypnoeic and has scattered crepitations over both the lung fields. The chest X-ray shows bilateral interstitial infiltrates. The initial antibiotic of choice would be
- Penicillin
 - Cotrimoxazole
 - Amphotericin B
 - Acyclovir
41. The typhus group of fevers are transmitted by the following :
- Mites
 - Human body louse
 - Sand fly
 - Fleas
- Select the correct answer using the code given below :
- 1, 2 and 3
 - 1, 3 and 4
 - 1, 2 and 4
 - 2, 3 and 4
42. Which of the following is the common side effect of isoniazid ?
- Diarrhoea
 - Hypertrophy
 - Peripheral neuritis
 - Acute tubular necrosis
43. Which of the following statements is *not* true regarding haemolytic uraemic syndrome ?
- It is a microangiopathic haemolytic anaemia
 - Thrombocytopenia and schistocytes are seen in the peripheral blood smear
 - Renal insufficiency is a complication
 - Direct Coombs' test is positive
44. Secondary syphilis is characterized by all of the following *except*
- Generalised mucocutaneous lesions
 - Generalised tender lymphadenopathy
 - Constitutional symptoms like fever, and weight loss
 - Painless silver-grey mucosal erosions
45. The gravest complication of Falciparum malaria is
- Cerebral malaria
 - Acute pulmonary oedema
 - Algid malaria
 - Metabolic acidosis
46. Each of the following antitubercular drugs is potentially hepatotoxic *except*
- Ethambutol
 - Isoniazid
 - Rifampicin
 - Pyrazinamide

47. Consider the following statements regarding HIV infection in pregnant women :

1. The maternal to foetal transmission of HIV mostly occurs during the perinatal period.
2. The risk of vertical transmission increases in direct proportion to the maternal HIV viral load.
3. Breast-feeding is an important route of HIV transmission to the infant.

Which of the statements given above is/are correct ?

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

48. A 35-year-old nondiabetic, nonhypertensive individual presents to casualty with a sudden bursting headache and altered sensorium. What is the most likely diagnosis ?

- (a) Meningitis
- (b) Encephalitis
- (c) Intracerebral haemorrhage
- (d) Intracranial tumour

49. Which of the following is a first-generation cephalosporin ?

- (a) Cefaclor
- (b) Cefazolin

(c) Cefoxitin

(d) Cefepime

50. Which of the following drugs is useful in the treatment of "Febrile neutropenia" ?

- (a) Fluconazole
- (b) Itraconazole
- (c) Voriconazole
- (d) Flucytosine

51. The drug used for the treatment of Familial Mediterranean Fever is

- (a) Iododoxorubicin
- (b) Doxycycline
- (c) Colchicine
- (d) Hydroxy chloroquine

52. A patient presents to the casualty with the history of chest pain and hypotension. The ECG reveals changes of hyperacute inferior wall myocardial infarction. What other cardiac condition would you like to exclude with this myocardial infarction ?

- (a) Right ventricular infarction
- (b) Lateral wall infarction
- (c) Hypersensitive carotid sinus
- (d) Septum secundum atrial septal defect

53. A 25-year-old primigravida, who is in the first trimester of pregnancy, reports to the Emergency Room with shortness of breath, cough and chest pain. Her chest examination reveals that her lungs are unremarkable, whereas she has signs of mitral stenosis on cardiac auscultation. Consider the following statements :

1. Doppler echocardiography will provide definitive evaluation of the mitral stenosis.
2. The treatment of choice is balloon valvuloplasty or mitral valvotomy or mitral valve replacement.
3. She requires oral anticoagulants.
4. She only requires anti-failure measures.

Which of the statements given above is/are correct ?

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

54. The following conditions cause non-scarring alopecia *except*

- (a) Alopecia aerata
- (b) Tinea capitis
- (c) Secondary syphilis
- (d) Sarcoidosis

55. Which of the following toxicity is specific to anthracyclines therapy ?

- (a) Cardiac muscle damage
- (b) Peripheral neuropathy
- (c) Haemorrhagic cystitis
- (d) Renal damage

56. Cellular immunity is affected by

- (a) Cytokines
- (b) Immunoglobulins
- (c) Gamma globulins
- (d) Prostaglandins

57. A particularly chronic low-grade long lasting depression is known as

- (a) Unipolar depression
- (b) Bipolar depression
- (c) Dysthymia
- (d) Major depressive disorder

58. Consider the following :

1. Carcinoma of the stomach
2. Obesity
3. Insulin resistance
4. Haemochromatosis

Which of the above is/are associated with acanthosis nigricans ?

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

59. Reiter's syndrome is constituted by the following *except*

- (a) Seronegative arthritis
- (b) Non-specific urethritis
- (c) Conjunctivitis
- (d) Lymphadenitis

60. The presence of 'swan-neck' deformity, 'buttonhole' deformity, 'Z' deformity of the thumb and 'Baker's cysts' suggest which of the following ?
- Reiter's syndrome
 - Gouty arthritis
 - Psoriatic arthritis
 - Rheumatoid arthritis
61. Regarding rheumatoid arthritis, the following statements are true *except*
- The cricoarytenoid joint may be involved
 - HLA-D4 and HLA-DR4 are positive in patients with seropositive rheumatoid arthritis
 - Subcutaneous nodules are more frequent in seronegative patients
 - Diffuse intestinal fibrosis and pneumonitis may occur
62. Quinine is prescribed for the treatment of chloroquine resistant falciparum malaria. The oral dose of quinine is about
- 10 mg/kg per day
 - 20 mg/kg per day
 - 30 mg/kg per day
 - 50 mg/kg per day
63. Which of the following medical conditions *does not* mimic an anxiety disorder state ?
- Hypothyroidism
 - Pheochromocytoma
 - Hypoglycaemia
 - Alcohol withdrawal
64. Each of the following is a hallmark of celiac sprue *except*
- It is a gluten-sensitive enteropathy
 - It may get complicated by lymphoma
 - It is diagnosed on the basis of a small-intestinal biopsy
 - It may be associated with diabetes insipidus
65. Regarding syphilis, the following statements are correct *except*
- The disease is caused by *Treponema pallidum*, a spirochete
 - Cardiovascular syphilis often leads to dissecting aneurysm of the aorta
 - Regional lymphadenopathy accompanies the primary lesion appearing within one week of the onset
 - Fluorescent treponemal antibody-absorption test is a highly specific test for the diagnosis of disease
66. The most common cause of preventable blindness in children in India is
- Trachoma
 - Traumatic cataract
 - Vitamin A deficiency
 - Recurrent conjunctivitis

67. Consider the following statements regarding mitral stenosis (MS) :

1. In isolated MS, the left ventricular diastolic pressure is normal.
2. In most patients with moderate MS, the cardiac output is normal or almost so at rest.
3. Severe pulmonary hypertension results in tricuspid regurgitation.
4. Left ventricular ejection fraction is markedly reduced.

Which of the statements given above is/are correct ?

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

68. A patient presents with shortness of breath. On clinical examination, he is found to have a heaving apex and a systolic murmur that intensifies on Valsalva's manoeuvre. The most likely diagnosis is

- (a) Valvular aortic stenosis
- (b) Ventricular septal defect
- (c) Hypertrophic cardiomyopathy
- (d) Atrial septal defect

69. Which one of the following treatments is effective in primary biliary cirrhosis ?

- (a) Prednisolone
- (b) Interferon α -2B
- (c) D-Penicillamine
- (d) Ursodeoxycholic acid

70. The following features are hallmarks of post-primary pulmonary tuberculosis *except*

- (a) It results from endogenous reactivation of latent infection
- (b) The disease is usually localized to the anterior segment of the upper lobe
- (c) If cavity formation occurs, satellite lesions result from the discharge of liquefied contents into the airways
- (d) Up to one-third of untreated patients die due to severe pulmonary TB within a few weeks or months after onset

71. The approximate protein content of breast milk is

- (a) 0.9 – 1.1 g/dL
- (b) 2.0 – 3.0 g/dL
- (c) 3.5 – 4.0 g/dL
- (d) 5.0 – 5.5 g/dL

72. The following are the hallmarks of Nephrotic syndrome in children *except*

- (a) Severe proteinuria $> 2 \text{ gm/m}^2/\text{day}$
- (b) Hypoalbuminaemia $< 2.5 \text{ g/dL}$
- (c) Gross haematuria
- (d) Edema

73. Which of the following is *not* a feature of Sydenham's chorea ?

- (a) Hypotonia
- (b) Unintelligible Speech
- (c) Emotional lability
- (d) Seizures

74. At what wavelength is phototherapy most effective ?
- (a) 150 nm
 - (b) 250 nm
 - (c) 350 nm
 - (d) 450 nm
75. The following are inherited as autosomal recessive disorders *except*
- (a) Phenylketonuria
 - (b) Galactosaemia
 - (c) Achondroplasia
 - (d) Wilson's disease
76. A 5-year-old boy is suffering from minimal change nephrotic syndrome. For bringing about a remission induction, the drug of choice is
- (a) Furosemide
 - (b) Levamisole
 - (c) Cyclophosphamide
 - (d) Prednisolone
77. Subacute sclerosing panencephalitis is associated with
- (a) Mumps
 - (b) Measles
 - (c) Exanthema subitum
 - (d) Erythema infectiosum
78. Which of the following is *not* a feature of arthritis in acute rheumatic fever ?
- (a) Elevated ASO titre
 - (b) Joint deformities are common sequel
 - (c) Dramatic response to aspirin
 - (d) Involvement of large joints
79. Approximate caloric requirements of an infant at the age of 12 months would be
- (a) 500 Kcal
 - (b) 700 Kcal
 - (c) 1,000 Kcal
 - (d) 1,200 Kcal
80. The following are live attenuated vaccines *except*
- (a) Polio Sabin vaccine
 - (b) Schwarz measles vaccine
 - (c) BCG vaccine
 - (d) Pertussis vaccine
81. Which of the following is characterised by an increase in osmotic fragility of red cells ?
- (a) Thalassemia major
 - (b) Iron deficiency anaemia
 - (c) Hereditary spherocytosis
 - (d) Pyridoxine deficiency

82. If both the parents are carriers of the beta thalassaemia gene, the chance of having a child with thalassaemia major in each pregnancy is
- (a) 25%
 - (b) 50%
 - (c) 75%
 - (d) 100%
83. The severity of mitral stenosis is assessed by
- (a) Character of murmur
 - (b) Splitting of S_2
 - (c) Loudness of S_1
 - (d) S_2 - O_s interval
84. Which of the following is *not* a characteristic feature of Kala-azar?
- (a) Splenomegaly
 - (b) Leukocytosis
 - (c) Anaemia
 - (d) Hypoalbuminaemia
85. The most common cause of epistaxis in a 4-year-old boy is
- (a) Chronic rhinitis
 - (b) Nasal polyp
 - (c) Foreign body
 - (d) Nose picking
86. A 5-year-old child presents with short history of purpuric rash, pain and swelling of both knee joints and pain in abdomen. The most likely diagnosis is
- (a) Idiopathic thrombocytopenic purpura
 - (b) Kawasaki disease
 - (c) Henoch-Schönlein purpura
 - (d) Takayasu arteritis
87. The following vaccines can be administered subcutaneously *except*
- (a) Measles vaccine
 - (b) Varicella vaccine
 - (c) BCG
 - (d) MMR vaccine
88. In a normal child who weighs 15 kg, the daily fluid maintenance requirement will be approximately
- (a) 1000 ml
 - (b) 1250 ml
 - (c) 1500 ml
 - (d) 1750 ml
89. Which of the following investigations would be diagnostic of Cystic fibrosis?
- (a) Deficiency of the enzyme mucinase
 - (b) High sweat chloride content
 - (c) Alpha-1 aldolase deficiency
 - (d) Increased copper excretion in urine

90. A 6-month-old male infant presents with progressive weakness, severe pallor, cardiac decompensation and splenomegaly. The peripheral smear shows microcytosis with normoblasts. What is the most likely diagnosis ?

- (a) Sick cell disease
- (b) Iron deficiency anaemia
- (c) Thalassemia
- (d) Sideroblastic anaemia

91. With reference to the Total Sanitation Campaign, consider the following statements :

- 1. It is a project based programme taking district as a unit.
- 2. At present, it is implemented in 300 selected rural districts of the country.
- 3. School Sanitation and Hygiene Education is one of the components in it.

Which of the statements given above is/are correct ?

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

92. Cooking with solid fuel on open fires or traditional stoves results in high levels of indoor air pollution. The indoor smoke contains a range of health-damaging pollutants, which include all of the following *except*

- (a) Lead oxide
- (b) Carbon monoxide
- (c) Sulphur oxides
- (d) Benzopyrenes

93. With reference to pre-packed food items in India, it is mandatory to the manufacturer to put which of the following information on the main label as per Food Safety and Standards (Packaging and Labelling) Regulation, 2011 ?

- 1. List of ingredients including additives.
- 2. Nutrition information.
- 3. Recommendations, if any, made by the medical profession.
- 4. Vegetarian/non-vegetarian (in the form of green or brown logo).

Select the correct answer using the code given below :

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

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

List I (Town)	List II (Industry)
A. Cuttack	1. Paper
B. Indore	2. Glass
C. Kolhapur	3. Fertilizer
D. Ramagundam	4. Textile

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

95. Which one of the following is *not* required for the formation of photo-chemical smog ?

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

96. In India, in the wake of a natural disaster like cyclone, floods, or earthquake, the execution of relief work is essentially the responsibility of

- (a) The Union Government
- (b) The State Government
- (c) Indian Armed Forces
- (d) Indian Red Cross

97. Consider the following statements with regard to mass vaccination programmes in a disaster-affected zone :

1. The WHO recommends that the typhoid and cholera vaccines should routinely be given in endemic areas.
2. The mass vaccination of the population against tetanus is usually unnecessary.
3. If tetanus immunization was received more than 5 years ago in a patient who has sustained an open wound, a tetanus toxoid booster is an effective preventive measure.
4. As a large-scale measure, typhoid and cholera vaccines have proven to be effective public health strategy.

Which of the statements given above are correct ?

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

98. Under the Integrated Child Development Scheme, which among the following services are provided ?

1. Immunization
2. Supplementary nutrition
3. Primary school education
4. Health check-up

Select the correct answer using the code given below :

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

99. Consider the following health hazards :

1. Lowering of IQ in children.
2. Lowering of systolic blood pressure.
3. Reduced RBC survival and reduced haem biosynthesis.
4. Higher rates of miscarriages, stillbirths and pre-term deliveries.

Which of the above are associated with environmental lead exposure ?

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

100. Which of the following will be the useful control strategies to check outdoor pollution with "fine" particulate matter ?

1. Restriction on the use of two-stroke engines
2. Restriction on burning of biomass
3. Restriction of use of coal as fuel in homes
4. Active measures to control forest fires

Which of the statements given above are correct ?

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

101. The following agents are known leukemogens *except*

- (a) Benzene
- (b) Beryllium
- (c) Ethylene oxide
- (d) Ionizing radiation

102. Consider the following statements with regard to the PNDT (Pre-Natal-Diagnostic Techniques (Regulation and Prevention of Misuse)) Act :

1. It prohibits all organizations and persons from selling and renting ultrasound or imaging machines to any institution or person unless they are registered under the Act.

2. It makes it mandatory upon a Genetic Centre, Laboratory, Ultrasound Clinic to display prominently an undertaking that they do not conduct any test or procedure for detection of sex or foetus.

3. It makes it mandatory upon every Genetic Centre, Laboratory, Ultrasound Clinic to maintain a register showing in serial order, the names and addresses of the clients who report for pre-natal counselling or diagnostic tests.

4. It makes it mandatory that only sonologists/radiologists having a PG degree or PG diploma in sonography/radiology should conduct the ultrasound or imaging studies.

Which of the above are the provisions given in the PNDT Act ?

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

103. Who is the Chairman of the National Disaster Management Authority in India ?

- (a) Prime Minister of India
- (b) Union Home Minister
- (c) Union Health Minister
- (d) Union Minister of Environment and Forests

104. With reference to the demographic profile of India, consider the following statements :

1. The proportion of the population in the age group 0-6 declined from 16% to 13% over the period 2001-11.
2. Of all the states, 20 states have achieved replacement level fertility.
3. As per 2011 census, there has been a significant inflow of migration to many southern states.

Which of the statements given above is/are correct ?

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

105. A kind of harmful chemical substances known as phthalates are sometimes in the news. Which of the following statements is/are correct regarding them ?

1. They are extensively used in the manufacture of paints and varnishes.
2. They are used in the manufacture of toys.
3. They interfere with the development of reproductive system.
4. They are toxic to liver and thyroid glands.

Select the correct answer using the code given below :

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

106. Consider the following transient physiological changes :

1. Increase in blood pressure
2. Decrease in intracranial pressure
3. Dilatation of the pupils
4. Increase in breathing rate

Which of the above changes transiently occur in a person exposed to noise pollution ?

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

107. Consider the following statements in the context of Chandrayan 1 :

1. This moon mission included a spacecraft and a moon impact probe.
2. It made the discovery that the moon may have water.
3. It carried out 3D lunar surface mapping.
4. It placed the National tricolor on the lunar surface.

Which of the above statements regarding Chandrayan 1 are correct ?

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

108. Which one of the following kitchen practices is considered to be beneficial from the standpoint of nutrition and health ?

- (a) Addition of baking soda to beans and lentils at the time of cooking
- (b) Cutting vegetables into small pieces half an hour before cooking
- (c) Fermenting the ingredients before making the preparation as in *idli* or *dhokla*
- (d) Washing the rice with good amount of water before cooking

109. Which of the following can help in reducing the carbon footprint ?

- 1. Using fly-ash based cement in building construction.
- 2. Using LED-based electric lamps instead of incandescent lamps.

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

List I (Biosphere Reserve)	List II (State)
A. Dehang-Debang	1. Arunachal Pradesh
B. Manas	2. Assam
C. Nokrek	3. Meghalaya
D. Simlipal	4. Orissa

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

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

List I (City)	List II (Industry)
A. Bhopal	1. Steel
B. Kapurthala	2. Heavy electricals
C. Visakhapatnam	3. Petro-chemicals
D. Vadodara	4. Rail coaches

Code :

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

112. It is known that the yellow pigment curcumin in turmeric powder helps the body cells to resist the infections. Recently, its exact action has been discovered. In this context which of the following statements is/are correct ?

1. Curcumin stimulates the rapid multiplication of WBC that destroy the infectious microorganisms.
2. Curcumin molecules insert themselves into cell membranes and make the membranes resistant to invading microorganisms.
3. Curcumin stimulates the rapid synthesis of antibodies against the invading microorganisms.

Select the correct answer using the code given below :

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

113. Consider the following rivers :

1. Betwa
2. Chambal
3. Sone

Which of the above join river Yamuna ?

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

114. Holography has applications in which of the following ?

1. Data storage
2. Prevention of counterfeiting
3. Destruction of cancerous cells
4. Detection of kidney stones

Select the correct answer using the code given below :

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

115. Consider the following statements :

1. Higher levels of ozone concentrations in the ambient air aggravates the severity and frequency of symptoms among asthmatics.
2. A short-term increase in particulate matter in the ambient air increases the chances of acute heart attacks.

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

116. With reference to the popular medicinal plant "guggal" (*Commiphora wightii*), which of the following statements is/are correct ?

1. It grows in the wild in the tropical rain forests of north-east India only.
2. The gum extract of the plant has the medicinal properties.
3. It helps in lowering the low-density lipoprotein cholesterol.

Select the correct answer using the code given below :

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

117. Biological fixation of nitrogen most commonly occurs in which of the following crops ?

- (a) Pulses
- (b) Cereals
- (c) All tuber crops
- (d) Sugarcane and beetroot

118. A genetically modified rice called "golden rice" helps in combating the deficiency of

- (a) Vitamin A
- (b) Vitamin C
- (c) Calcium
- (d) Zinc

119. The President of India is elected by the

- (a) Members of Lok Sabha only
- (b) Members of both Houses of Parliament only
- (c) Members of Lok Sabha and State Legislative Assemblies only
- (d) Elected Members of both Houses of Parliament and State Legislative Assemblies

120. With reference to the labour laws of our country, which of the following statements is/are correct ?

1. The services of women workers cannot be terminated during the period of their absence on account of pregnancy except for gross misconduct.
2. Any factory employing women workers, irrespective of their number in the factory, is required to provide creche facilities for their children.

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

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