Combined Medical Services
Examination, 2026

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

T.B.C. : NTDC-O-KPMS

Test Booklet Series

1110081

A

TEST BOOKLET

Paper-I

GENERAL MEDICINE AND PEDIATRICS

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. **Please note that it is the candidate's responsibility to encode and fill in the Roll Number and Test Booklet Series Code A, B, C or D carefully and without any omission or discrepancy at the appropriate places in the OMR Answer Sheet. Any omission/discrepancy will render the Answer Sheet liable for rejection.**
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.
    (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** 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.

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

1. A 35-year-old man presented with serial blood pressure recordings of above 140/90 mmHg. Which one of the following signs is ***not*** a clue for an underlying cause of hypertension (secondary hypertension) ?
   (a) Radio-femoral delay
   (b) Enlarged kidneys
   (c) Bull neck and buffalo hump
   (d) Vitiligo

2. A 71-year-old male presents with headache, dizziness, nausea with palpitations. The patient is already on treatment for diabetes and hypertension. The blood pressure reading is 220/140 mmHg. Which of the following statements is/are correct ?
   1. This is a case of hypertensive emergency which can be managed by intravenous sodium nitroprusside.
   2. An immediate normalization of the blood pressure should be the target.
   3. Secondary causes of hypertension like renovascular disease are uncommon in patients with hypertensive emergency.

   Select the answer using the code given below :
   (a) 1 only
   (b) 1, 2 and 3
   (c) 2 and 3 only
   (d) 1 and 3 only

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

List I (Drug used in heart failure)	*List II (Mechanism of action)*
A. Metoprolol	1. Aldosterone antagonist
B. Telmisartan	2. Angiotensin-receptor blocker
C. Enalapril	3. ACE inhibitor
D. Eplerenone	4. Beta-blocker

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

4. Consider the following statements regarding Takotsubo cardiomyopathy :
   1. There is acute right ventricular dysfunction characterized by dilatation of the right ventricular apex.
   2. It can be precipitated by acute emotional stress and is frequently associated with an underlying neuro-psychiatric disorder.
   3. Symptoms and ECG findings often mimic acute ST-elevation myocardial infarction.
   4. Ventriculography shows normal left ventricle and apical ballooning of the right ventricle.

   Which of the statements given above are correct ?
   (a) 1 and 2
   (b) 2 and 3
   (c) 1 and 4
   (d) 3 and 4

5. With regard to Hypertrophic Cardiomyopathy, match List I with List II and select the correct answer using the code given below the lists :

List I (Mutation)	*List II (Phenotype)*
A. Beta-myosin heavy chain mutations	1. Marked ventricular hypertrophy
B. Troponin mutations	2. Hypertension and arrhythmia
C. Myosin-binding protein-C mutations	3. Myocardial fibre disarray with minimal hypertrophy

Code :

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

6. 'Tumour Plop' is a characteristic auscultatory finding seen in which one of the following conditions ?

(a) Atrial myxoma

(b) Arrhythmogenic ventricular cardiomyopathy

(c) Constrictive pericarditis

(d) Dilated cardiomyopathy

7. Retinal ischaemia, flame-shaped haemorrhages and cotton-wool exudates are fundoscopy findings in which of the following grades of hypertensive retinopathy ?

1. Grade 1
2. Grade 2
3. Grade 3
4. Grade 4

Select the correct answer using the code given below :

(a) 1 and 2 only

(b) 3 and 4 only

(c) 2, 3 and 4 only

(d) 1, 2, 3 and 4

8. Aschoff Nodules are a pathognomonic cardiac finding in which one of the following conditions ?

(a) Rheumatic carditis

(b) Infective endocarditis

(c) Rheumatoid arthritis

(d) Takayasu's arteritis

9. Consider the following statements regarding Eisenmenger Syndrome :

1. In patients with severe and prolonged pulmonary hypertension, the right-to-left shunt gets reversed to a left-to-right shunt.
2. There is marked cyanosis, which may be more apparent in the feet and toes than in the upper part of the body.
3. Antihypertensives which cause peripheral vasodilatation can exacerbate the shunting and worsen the symptoms.

Which of the statements given above is/are correct ?

(a) 1 only

(b) 2 only

(c) 1 and 3

(d) 2 and 3

10. Consider the following statements regarding the murmur of Patent Ductus Arteriosus :

1. It is a continuous 'machinery' murmur.
2. There is a late diastolic accentuation.
3. It is maximal in the second left intercostal space below the clavicle.
4. With the development of Eisenmenger Syndrome, the murmur becomes louder and rumbling in character.

Which of the statements given above is/are correct ?

(a) 1 only

(b) 1 and 3

(c) 2 and 3 only

(d) 2, 3 and 4

11. A patient presented with pain on the left side of the chest. On examination, there was dullness on percussion on left infra-axillary area. X-ray Chest showed left opaque hemithorax. Which one of the following is an indication for tube thoracentesis in this case ?

(a) Presence of straw-coloured fluid

(b) Pleural fluid pH > 7·2

(c) Pleural fluid glucose < 60 mg/dL

(d) Pleural fluid LDH < 600 IU/L

12. A patient with a history of smoking presents to the emergency with a complaint of breathlessness for the last two days. On examination, he was found to be cyanosed and had bilateral rhonchi. ABG was done, which shows :

pH	:	7·12
$PaCO_2$	:	80 mmHg
PaO_2	:	46 mmHg
HCO^{3-}	:	29 mEq/L

Based on the history, clinical examination and ABG finding, the most likely diagnosis is :

(a) Pulmonary embolism

(b) Pneumonia

(c) COPD exacerbation

(d) Pulmonary fibrosis

13. A patient with a history of chronic smoking presented with breathlessness for the last one year. On examination, there were bilateral rhonchi in the chest. The Chest X-ray was suggestive of hyper-inflated lung field. Which of the following parameters of the pulmonary function test are consistent with the diagnosis of chronic obstructive pulmonary disease in this case ?

1. Decreased FEV_1
2. Increased diffusion capacity
3. Increased residual volume
4. Decreased peak expiratory flow rate

Select the correct answer using the code given below :

(a) 1, 2 and 3

(b) 1, 3 and 4

(c) 2, 3 and 4

(d) 2 and 4 only

14. Omalizumab is helpful in which of the following diseases ?

1. Asthma
2. Idiopathic pulmonary fibrosis
3. Nasal polyposis

Select the correct answer using the code given below :

(a) 1 and 3 only

(b) 1 and 2 only

(c) 1, 2 and 3

(d) 2 and 3 only

15. A 50-year-old male working in a stone industry presents with breathlessness and cough. CT Chest shows calcified mediastinal lymph nodes and pulmonary nodules. He is diagnosed with silicosis. Which of the following statements are correct ?

1. Silicosis typically involves lower lobes of the lung.
2. The patient is at a higher risk of developing pulmonary tuberculosis.
3. Pulmonary fibrosis after occupational exposure to silica is dose-dependent.

Select the correct answer using the code given below :

(a) 1 and 2 only

(b) 1, 2 and 3

(c) 1 and 3 only

(d) 2 and 3 only

16. A 70-year-old male, with a history of smoking presents with progressive dyspnea and dry cough. Examination reveals clubbing and fine basal crackles. Spirometry shows low forced vital capacity (FVC) and low diffusion capacity (DLCO). CT Chest shows extensive bilateral reticular shadows and subpleural honeycombing. What is the most likely diagnosis ?

(a) Idiopathic pulmonary fibrosis

(b) Sarcoidosis

(c) Chronic obstructive pulmonary disease

(d) Bronchiectasis

17. A 40-year-old obese bank accountant presents with complaints of excessive daytime sleepiness and fatigue. His spouse reports that he has loud snoring and early morning tiredness. Which of the following statements is/are correct ?

1. The patient is most likely suffering from obstructive sleep apnea.
2. The diagnosis requires CT/MRI of the neck.
3. Treatment of choice is Zolpidem.

Select the correct answer using the code given below :

(a) 1 only

(b) 2 only

(c) 2 and 3

(d) 1 and 3

18. A 34-year-old medical student has fever, chest pain, severe breathlessness, and dry cough. Chest X-ray shows right homogeneous opacity. Ultrasound lung confirms massive pleural effusion on the right side. Which of the following statements are correct ?

1. A therapeutic pleural tap should be done to relieve dyspnoea and sent for analysis.
2. If pleural fluid analysis is inconclusive, a thoracoscopy may be done.
3. Thoracoscopy should be done under general anesthesia.

Select the correct answer using the code given below :

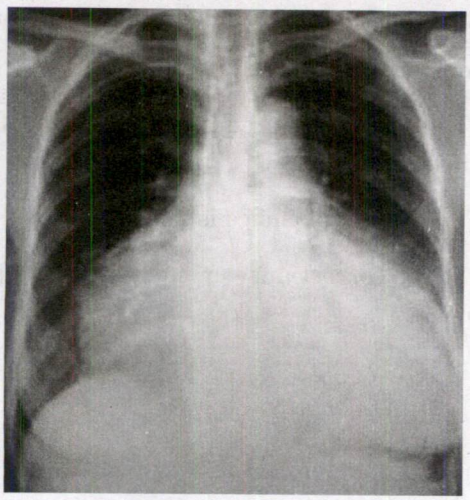
(a) 1 and 2 only

(b) 2 and 3 only

(c) 1 and 3 only

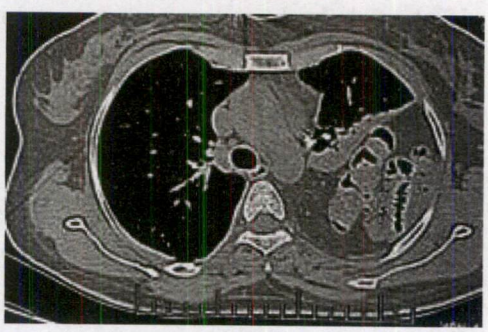
(d) 1, 2 and 3

19. A 42-year-old male with chronic kidney disease undergoing chronic dialysis presents with worsening breathlessness. Examination reveals muffled heart sounds. Chest X-ray image is shown below. What is the most likely diagnosis of this patient ?



(a) Pneumothorax
(b) Pleural effusion
(c) Pericardial effusion
(d) Pulmonary embolism

20. A 22-year-old male presents with left-sided chest pain and breathlessness after a road traffic accident. Examination reveals absent left-sided breath sounds. CT Chest image is shown below. What is the diagnosis of this patient ?



(a) Pneumothorax
(b) Pleural effusion
(c) Lung cavity
(d) Bowel loops herniation

21. Infiltration of the small-intestine mucosa with 'foamy' macrophages, which stain positive with Periodic Acid-Schiff (PAS) reagent, is a characteristic feature of which one of the following conditions ?
(a) Radiation enteropathy
(b) Coeliac disease
(c) Tropical sprue
(d) Whipple's disease

22. Which one of the following is ***not*** a risk factor for the acquisition of chronic hepatitis C ?
(a) Intravenous drug abuse
(b) Unscreened infected blood transfusion
(c) Vertical transmission
(d) Sharing food

23. Which one of the following is a predictor of liver fibrosis ?
(a) Serum transaminase levels
(b) AST-to-Platelet Ratio Index
(c) Coagulation profile
(d) Serum albumin and pre-albumin

24. A 30-year-old female with irritable bowel syndrome presents with predominant symptom of diarrhea. Which of the following will be helpful in her treatment ?
1. Loperamide
2. Lactulose
3. Lubiprostone
4. Sorbitol

Select the correct answer using the code given below :
(a) 1 and 2
(b) 1 only
(c) 2 and 3
(d) 2 and 4

25. 'Melanosis coli' (brownish discoloration of colonic mucosa) can occur due to the long-term consumption of which one of the following ?
(a) Stimulant laxatives
(b) Non-steroidal anti-inflammatory drugs
(c) Proton pump inhibitors
(d) 3rd generation cephalosporins

26. Patients suffering from which of the following condition(s) can get symptomatic relief by consuming a gluten-free diet ?

1. Coeliac disease
2. Peptic ulcer disease
3. Dermatitis herpetiformis

Select the correct answer using the code given below :

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

27. The '^{13}C-urea breath test' and the 'faecal antigen test' are non-invasive techniques to diagnose infection with which one of the following ?

(a) *Haemophilus inftuenzae*
(b) *Leishmania donovani*
(c) *Giardia lamblia*
(d) *Helicobacter pylori*

28. Consider the following statements regarding Ménétrier's disease :

1. There is excessive production of Transforming Growth Factor-alpha (TGF-α).
2. Majority of the patients present with features of protein-losing enteropathy.
3. Mucus secreting cells are replaced by parietal and chief cells.
4. The mucosal folds of the body and fundus of the stomach are greatly enlarged.

Which of the statements given above are correct ?

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

29. Consider the following statements regarding 'Barrett's Oesophagus' :

1. It is a pre-malignant condition.
2. The normal columnar mucosa of lower oesophagus is replaced by squamous cells.
3. It is an adaptive response to chronic gastro-oesophageal reflux.

Which of the statements given above is/are correct ?

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

30. The presence of which of the following is suggestive of metastatic spread of an underlying gastrointestinal malignancy ?

1. Krukenberg Tumour
2. Virchow's Node
3. Meigs' Syndrome
4. Sister Mary Joseph's Nodule

Select the correct answer using the code given below :

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

31. Sodium zirconium cyclosilicate and patiromer are commonly prescribed to chronic kidney disease patients because of their property of binding to which one of the following electrolytes ?

(a) Calcium

(b) Sodium

(c) Potassium

(d) Phosphate

32. Calcium resonium, which is used to treat hyperkalaemia over a short-term in chronic kidney disease, is associated with the development of which one of the following conditions ?

(a) Prostatomegaly

(b) Myocarditis

(c) Renal Artery Stenosis

(d) Bowel Necrosis

33. In multiple myeloma, monoclonal immunoglobulin light chains combine with Tamm – Horsfall protein precipitate in the renal tubules which leads to the development of which one of the following conditions ?

(a) IgA Nephropathy

(b) Cast Nephropathy

(c) Membranous Glomerulonephritis

(d) Interstitial Nephritis

34. Multiple myeloma can cause proximal tubular injury due to light chain deposition in the tubular epithelium causing acquired Fanconi Syndrome. Which of the following are characteristic findings in this condition ?

1. Little/no proteinuria
2. Aminoaciduria
3. Phosphaturia
4. Glycosuria

Select the correct answer using the code given below :

(a) 1, 2 and 3

(b) 1, 2 and 4

(c) 1, 3 and 4

(d) 2, 3 and 4

35. Which one of the following hereditary tubulo-interstitial kidney diseases shows Autosomal Recessive pattern of inheritance ?

(a) Nephronophthisis

(b) Juvenile hyperuricaemic nephropathy

(c) Medullary cystic kidney disease type 1

(d) Medullary cystic kidney disease type 2

36. Which one of the following is a contraindication of Renal Biopsy ?

(a) Nephritic syndrome

(b) Acute renal injury of uncertain etiology

(c) Uncontrolled hypertension

(d) Renal transplant dysfunction

37. Anti-PLA2R antibodies, which are directed against the 'M-type phospholipase A2 receptor', are a key biomarker for which one of the following conditions ?

(a) Primary membranous nephropathy

(b) IgA Nephropathy

(c) Crescentic glomerulonephritis

(d) Mesangioproliferative glomerulonephritis

38. Which one of the following stages of chronic kidney disease corresponds to a glomerular filtration rate of 55 mL/min/1·73 m^2 ?

(a) 1

(b) 2

(c) 3A

(d) 3B

39. Which one of the following hereditary neuropathies is characterized by elevated serum 'phytanic acid' levels and manifests with the tetrad of peripheral neuropathy, retinitis pigmentosa, cerebellar ataxia and elevated protein concentration in cerebrospinal fluid ?

(a) Krabbe's disease

(b) Fabry's disease

(c) Tangier disease

(d) Refsum's disease

40. Which one of the following is true regarding asymmetrical motor diabetic neuropathy ?

(a) Weakness and wasting of proximal muscles of lower limbs

(b) Painless wasting of muscles

(c) Hyper-exaggerated reflexes in the affected limb

(d) Glucocorticoids are the treatment of choice

41. Which of the following are the clinical features of multiple sclerosis ?

1. Loss or blurring of vision
2. Tingling in limbs on neck flexion
3. Generalized tonic-clonic seizures
4. Gait ataxia

Select the correct answer using the code given below :

(a) 1, 2 and 4

(b) 2, 3 and 4

(c) 2 and 4 only

(d) 1 and 3

42. A 42-year-old labourer developed a sudden, severe and persistent headache, accompanied by vomiting and neck pain. He was evaluated at the nearest hospital where an emergency computed tomography was negative for stroke. Which one of the following investigations is best to confirm the diagnosis ?

(a) Electroencephalogram

(b) Carotid Doppler

(c) Lumbar puncture after 12 hours

(d) Upper gastrointestinal endoscopy

43. Consider the following pairs with respect to muscle channelopathies :

(Channel)		*(Muscle disease)*
1. Sodium	–	Paramyotonia congenita
2. Calcium	–	Malignant hyperthermia
3. Ryanodine receptor	–	Becker disease
4. Chloride	–	Thomsen disease

Which of the pairs given above are correctly matched ?

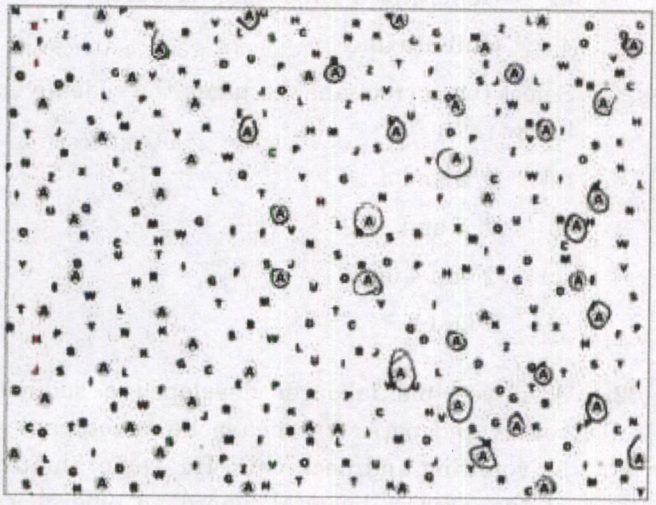
(a) 1, 2, 3 and 4

(b) 1, 3 and 4 only

(c) 1, 2 and 4 only

(d) 2 and 3 only

44. A 47-year-old man with a large frontoparietal lesion in the right hemisphere was asked to circle all the A's. Only targets on the right were circled. This is a manifestation of :



(a) Left hemispatial neglect

(b) Simultanagnosia

(c) Constructional apraxia

(d) Alien hand syndrome

45. A 40-year-old man was found to have weakness of the right shoulder and arm 6 hours before presentation. This was followed by weakness of the ipsilateral leg, then left leg, followed by left arm (around-the-clock pattern). Where in the neuraxis is the lesion likely to be present ?

(a) Cerebral cortex

(b) Foramen magnum

(c) Midbrain

(d) Pons

46. Which one of the following refers to agraphesthesia ?

(a) Inability to identify common objects by palpation recognising their shape, texture and size

(b) Inability to recognize with eyes closed, letters or numbers drawn by the examiner's fingertip on the palm of the hand

(c) Inability to discriminate two points set 3 mm apart on fingertips

(d) Inability to stand and walk with both the eyes closed

47. Which one of the following is a type of Mitochondrial myopathy ?

(a) Myoclonic epilepsy with ragged red fibres

(b) Familial focal epilepsy with variable foci

(c) Sleep related hypermotor epilepsy

(d) Severe myoclonic epilepsy of infancy

48. Which one of the following is a childhood onset epilepsy syndrome characterized by multiple seizure types, developmental delay and slow (< 3 Hz) spike-and-wave discharges on an electroencephalogram ?

(a) Juvenile Myoclonic Epilepsy Syndrome

(b) Lennox–Gastaut Syndrome

(c) Mesial Temporal Lobe Epilepsy Syndrome

(d) Rasmussen Syndrome

49. With regard to the treatment of phaeochromocytoma, beta-blocker should never be given before alpha-blocker because it may cause :

(a) Paradoxical rise in blood pressure due to unopposed alpha-mediated vasoconstriction

(b) Paradoxical fall in blood pressure due to unopposed alpha-mediated vasoconstriction

(c) Paradoxical rise in blood pressure due to unopposed alpha-mediated vasodilatation

(d) Paradoxical fall in blood pressure due to unopposed alpha-mediated vasodilatation

50. Which of the following may be seen during clinical examination in a patient of Diabetes mellitus ?

1. Necrobiosis lipoidica
2. Charcot neuroarthropathy
3. Exudative maculopathy
4. Acanthosis nigricans

Select the correct answer using the code given below :

(a) 1 only

(b) 1 and 2 only

(c) 2 and 3 only

(d) 1, 2, 3 and 4

51. Consider the following statements regarding glucagon-like peptide-1 (GLP-1) and gastric inhibitory polypeptide (GIP) :

1. GLP-1 is an incretin hormone.
2. GIP is an incretin hormone.
3. GLP-1 is released from gastrointestinal 'L-cells'.
4. GIP is released from gastrointestinal 'M-cells'.

Which of the statements given above are correct ?

(a) 1 and 2 only

(b) 1, 2 and 3

(c) 3 and 4 only

(d) 2, 3 and 4

52. Consider the following statements regarding 'Factitious Thyrotoxicosis' :

1. Induced when patients consume excessive amounts of levothyroxine.
2. The exogenous levothyroxine supresses secretion of pituitary TSH (thyroid-stimulating hormone).
3. Serum thyroglobulin level is elevated.
4. $T_4 : T_3$ ratio is high.

Which of the statements given above are correct ?

(a) 1, 2 and 3

(b) 1, 2 and 4

(c) 1, 3 and 4

(d) 2, 3 and 4

53. Deficiency of which of the following mineral(s) can lead to hypocalcemia by impairing the ability of the parathyroid gland to secrete parathyroid hormone ?

1. Phosphate
2. Magnesium
3. Sodium
4. Potassium

Select the correct answer using the code given below :

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

54. Which of the following are long-acting insulin analogues ?

1. Lispro
2. Glargine
3. Detemir
4. Degludec

Select the correct answer using the code given below :

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

55. Which one of the following levels of hypoglycaemia corresponds to a blood glucose level of 50 mg/dL leading to cognitive impairment and need for corrective treatment ?

(a) Level 0
(b) Level 1
(c) Level 2
(d) Level 3

56. Liquorice misuse, by inhibiting 11 beta-hydroxysteroid dehydrogenase type 2 enzyme, can cause a condition which resembles the clinical features of :

(a) Gonadotropin excess
(b) Thyrotropin excess
(c) Mineralocorticoid excess
(d) Parathyroid hormone excess

57. Which of the following is/are growth hormone receptor antagonist(s) indicated in the treatment of Acromegaly ?

1. Octreotide
2. Lanreotide
3. Pasireotide
4. Pegvisomant

Select the correct answer using the code given below :

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

58. Which of the following statements regarding Autoimmune Polyendocrine Syndromes (APS) is/are correct ?

1. APS Type 1 is more common than APS Type 2.
2. APS Type 1 is inherited as an autosomal recessive condition.
3. APS Type 2 is inherited as an autosomal dominant condition.

Select the correct answer using the code given below :

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

59. Which one of the following drugs is ***not*** a secondary cause of weight gain ?

(a) Sulphonylureas
(b) Glucocorticoids
(c) Thyroxine
(d) β-blockers

60. Which one of the following is true for Teriparatide for treatment of osteoporosis ?

(a) It inhibits bone resorption by neutralizing effect of RANKL.
(b) It is a fragment of human PTH and works by stimulating new bone formation.
(c) It is administered subcutaneously once a year for 5 years.
(d) Teriparatide should be combined with bisphosphonates for better efficacy.

61. Post-transplant lymphoproliferative disorder, a lymphoma that follows organ transplantation, is associated with infection with which one of the following ?

(a) Epstein-Barr virus
(b) *Mycobacterium tuberculosis*
(c) *Capnocytophaga canimorsus*
(d) *Histoplasma capsulatum*

62. 'Exanthem Subitum' is caused due to infection of which of the following viruses ?

1. Human herpesvirus 6
2. Hepatitis-B virus
3. Human herpesvirus 7
4. Hepatitis-C virus

Select the correct answer using the code given below :

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

63. 'Slapped-cheek' rash is caused by infection with which one of the following viruses ?

(a) Zika virus
(b) Human herpesvirus 6
(c) Parvovirus B-19
(d) Varicella zoster virus

64. The neuropsychiatric manifestations of the infections caused by which one of the following infectious agents presents as 'Muttering Delirium' or 'Coma Vigil' in which patients pick randomly at bed clothes or imaginary objects ?

(a) *Neisseria gonorrheae*

(b) *Cardiobacterium hominis*

(c) *Salmonella typhi*

(d) *Campylobacter jejuni*

65. Necrotizing fasciitis caused by fungi such as mucoraceous moulds is classified as which one of the following types ?

(a) Type 1

(b) Type 2

(c) Type 3

(d) Type 4

66. Infusion of which one of the following antibacterial agents may cause the 'Red Man Syndrome' characterized by rapid onset of erythematous rash and pruritus on the head, face, neck and upper trunk ?

(a) Vancomycin

(b) Minocycline

(c) Levofloxacin

(d) Metronidazole

67. Which one of the following can be classically elicited in a patient of Staphylococcal scalded skin syndrome ?

(a) Auspitz sign

(b) Koebner phenomenon

(c) Gottron's sign

(d) Nikolsky sign

68. A 35-year-old female presents with generalized muscle rigidity, difficulty in swallowing and laryngeal spasms for the past one week. She has developed trismus over the past 2 days and has a pulse rate of 130 beats/minute and a respiratory rate of 35 breaths/minute on presentation. She gives a history of getting her ears pierced from a roadside jewellery seller 2 weeks ago. What is the most probable diagnosis ?

(a) Enteric fever

(b) Pertussis

(c) Diphtheria

(d) Tetanus

69. A 25-year-old male presents with complaints of urethral discharge and dysuria for the past 1 week. The discharge was scant and mucoid for a few days but he reports profuse and yellowish discharge since 2 days. Gram staining of the urethral discharge reveals gram-negative intracellular monococci and diplococci. On further questioning, he gives a history of unprotected sexual intercourse 15 days ago. Which one of the following conditions will be your most probable diagnosis ?

(a) Gonorrhea

(b) Chancroid

(c) Syphilis

(d) Lymphogranuloma venereum

70. A 40-year-old male, upon returning from a beach holiday, noticed a serpiginous, intensely pruritic linear lesion over the dorsum of foot which moved slowly across the skin to reach up to his toes in 5 – 6 days. The most likely clinical diagnosis is :

(a) Cutaneous larva migrans

(b) Anisakiasis

(c) Cutaneous larva currens

(d) Schistosomiasis

71. Consider the following statements regarding gas gangrene :

1. It is caused by clostridial species, e.g., *Clostridium perfringens*.
2. It is characterized by a foul-smelling, painful wound containing serosanguineous discharge and gas bubbles.
3. It requires an aerobic environment and affects sites which are richly supplied with blood.
4. Radical amputation carries a high risk of advancing the infection to healthy tissue and is strictly contraindicated.

Which of the statements given above are correct ?

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

72. Which of the following correctly denote(s) the clinical manifestations of diphtheria ?

1. Dermatosis characterized by punched-out ulcerative lesions with necrotic sloughing
2. Dysphonia, dysphagia and headache
3. Myocarditis, cardiac arrhythmias and congestive heart failure
4. Massive tonsillar, submandibular and paratracheal oedema presenting as 'bull-neck' appearance

Select the correct answer using the code given below :

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

73. Which one of the following is the vector for *Leishmania donovani*, the causative organism of Visceral Leishmaniasis ?

(a) Tsetse fly
(b) Sandfly
(c) Anopheles mosquito
(d) Reduviid bug

74. Casal's Necklace is a characteristic erythema seen in deficiency of which one of the following vitamins ?

(a) Thiamin
(b) Riboflavin
(c) Niacin
(d) Pyridoxine

75. Wickham's striae are typically seen in which one of the following diseases ?

(a) Iron-deficiency anemia
(b) Psoriasis
(c) Lichen planus
(d) Pityriasis versicolor

76. Consider the following statements regarding *Molluscum contagiosum* :

1. It is caused by Papilloma virus skin infection.
2. It occurs frequently in immunosuppressed patients.
3. Lesions are dome-shaped, umbilicated, skin-coloured papules with central punctum.
4. Gently squeezing the lesions with forceps after bathing can hasten resolution.

Which of the statements given above are correct ?

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

77. Which one of the following refers to the appearance of punctate bleeding spots on scraping the surface of a skin lesion ?

(a) Punshi's sign

(b) Barnett's sign

(c) Gottron's sign

(d) Auspitz's sign

78. Consider the following statements regarding Complex Regional Pain Syndrome (CRPS) :

1. Type 1 CRPS may be precipitated by a traumatic event such as a fracture.

2. Type 1 CRPS is associated with peripheral nerve damage.

3. Type 2 CRPS is associated with peripheral nerve damage.

4. Budapest criteria are used for diagnosis of CRPS.

Which of the statements given above are correct ?

(a) 1, 2 and 3

(b) 1, 2 and 4

(c) 1, 3 and 4

(d) 2, 3 and 4

79. Consider the following statements regarding Dual X-ray Absorptiometry (DXA) :

1. DXA is used to measure bone mineral density.

2. It works on the principle that calcium in bone attenuates passage of X-rays through the tissue in proportion to the amount of mineral present.

3. Osteoporosis is defined to be present when the T-score lies between (–1·0) and below (+2·5).

4. Co-existing conditions, e.g., aortic calcification or degenerative disc disease can cause high bone mineral density even in the presence of osteoporosis.

Which of the statements given above are correct ?

(a) 1, 2 and 3

(b) 1, 2 and 4

(c) 1, 3 and 4

(d) 2, 3 and 4

80. Which of the following classical disease-modifying anti-rheumatic drugs is/are considered safe for use during pregnancy ?

1. Methotrexate

2. Sulfasalazine

3. Hydroxychloroquine

4. Leflunomide

Select the correct answer using the code given below :

(a) 1 only

(b) 1 and 3 only

(c) 2 and 3

(d) 1, 3 and 4

81. Finkelstein's sign/test is done to diagnose which one of the following conditions ?

(a) Adhesive capsulitis

(b) Golfer's elbow

(c) Trochanteric bursitis

(d) de Quervain's tenosynovitis

82. Which of the following are 'first-rank' symptoms of acute schizophrenia ?

1. Auditory hallucinations
2. Broadcasting of thoughts
3. Memory loss
4. Delusional perceptions

Select the correct answer using the code given below :

(a) 1, 2 and 3

(b) 1, 2 and 4

(c) 1, 3 and 4

(d) 2, 3 and 4

83. A 44-year-old woman has fear of contamination leading to her repeated hand-washing. With regard to her management, consider the following statements :

1. Diagnosis is made on the basis of history.
2. The disorder responds to antidepressant drugs.
3. Patients may be subjected to cognitive behaviour therapy.
4. Admission to a psychiatry ward is mandatory.

Which of the statements given above is/are correct ?

(a) 1, 2 and 3

(b) 4 only

(c) 3 and 4

(d) 1 only

84. Consider the following statements with regard to point mutations :

1. If a purine is replaced by another purine, it is called 'transition'.
2. If a purine is replaced by a pyrimidine, it is called 'transversion'.
3. If a pyrimidine is replaced by another pyrimidine, it is called 'transversion'.

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

85. Which one of the following correctly denotes a flat, coloured lesion, < 2 cm in diameter, not raised above the surface of the surrounding skin ?

(a) Macule

(b) Patch

(c) Papule

(d) Nodule

86. Which one of the following terms correctly denotes the mechanism and phenotypic changes that are not a result of variation in the underlying DNA sequence, but are caused by secondary modifications of DNA or histones in response to other heritable or environmental influences ?

(a) Pleiotropy

(b) Epigenetics

(c) Co-dominance

(d) Epistasis

87. 'Latrodectism', characterized by local pain and sweating, is caused by the bite of which one of the following animals ?

(a) Widow spider

(b) King cobra

(c) Lonomia caterpillar

(d) Solenopsis ants

88. A farmer was suspected of some unknown substance poisoning, as he presented with bronchorrhoea, sweating and excessive salivation. Examination revealed bradycardia with bilateral miosis. Consider the following statements regarding his poisoning :

1. The symptoms represent Anti Cholinergic Syndrome.

2. Activation of Acetylcholinesterase (AChE) enzyme is the underlying mechanism.

3. Intravenous Atropine should be given for treatment.

Which of the statements given above is/are correct ?

(a) 1 and 2

(b) 2 and 3

(c) 1 and 3

(d) 3 only

89. Which of the following pairs of parasites and associated clinical manifestations are correct ?

1. *Ancylostoma duodenale* : Anemia
2. *Ascaris lumbricoides* : Löffler Syndrome
3. *Loa loa* : Katayama Fever
4. *Trichinella spiralis* : Myositis

Select the answer using the code given below :

(a) 1, 2 and 4

(b) 2, 3 and 4

(c) 1, 3 and 4

(d) 1, 2 and 3

90. Which of the following features are present in Locked-in syndrome ?

1. Cerebral cortex is intact.

2. Bilateral motor tracts are damaged.

3. Some response to verbal stimuli may be present.

4. Limb movement occurs in response to noxious stimuli.

Select the correct answer using the code given below :

(a) 1 and 4

(b) 1 and 2 only

(c) 2, 3 and 4

(d) 1, 2 and 3

91. A 26-year-old female complains of severe fatigue and myalgia. Examination reveals pallor and mild splenomegaly. Haematological investigations are shown below :

Haemoglobin – 10 g/dL

Peripheral smear – Microcytic hypochromic picture with anisocytosis

Reticulocyte count – 5%

Serum ferritin – 300 microgram/L

What is the most likely underlying diagnosis ?

(a) Iron deficiency

(b) Folic acid deficiency

(c) Vitamin B_{12} deficiency

(d) β-Thalassemia

92. Which of the following infectious agents are associated with the development of lymphoid malignancies ?

1. HIV
2. Hepatitis B
3. Hepatitis C

Select the correct answer using the code given below :

(a) 1, 2 and 3

(b) 1 and 2 only

(c) 1 and 3 only

(d) 2 and 3 only

93. Which of the following statements regarding Blood component transfusion related acute lung injury are correct ?

1. Transfusion related acute lung injury (TRALI) usually manifests within 6 hours of transfusion.
2. Risk factors for TRALI include high titre anti-HLA class II antibodies in donor plasma.
3. TRALI due to cytokines or chemokines can occur even in the absence of HLA mediated interactions.

Select the answer using the code given below :

(a) 1, 2 and 3

(b) 1 and 2 only

(c) 1 and 3 only

(d) 2 and 3 only

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

List I (Drug)	*List II (Mechanism of action)*
A. Aspirin	1. Thrombolytic
B. Enoxaparin	2. Antiplatelet
C. Dabigatran	3. Anticoagulant
D. Alteplase	4. Direct thrombin inhibitor

Code :

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

95. A 3-year-old boy is brought with barking cough and noisy breathing of 2 days' duration. He has a history of running nose and some fever for the preceding 3 – 4 days. Examination reveals respiratory rate of 40 per min, subcostal retractions and stridor. The most important step in the management is :

(a) Nebulized adrenaline

(b) Nebulized salbutamol

(c) Subcutaneous adrenaline

(d) Intravenous hydrocortisone

96. A 3-year-old boy presents to the emergency room with seizures. He has been receiving oral phenytoin since the age of 6 months and has a history of epileptic spasms despite therapy. Examination reveals some hypopigmented lesions over the chest. MRI brain shows subependymal nodules. Which one of the following is the best anti-epileptic drug for him after stabilization in the emergency room ?

(a) Oral Phenytoin

(b) Oral Zonisamide

(c) Oral Topiramate

(d) Oral Vigabatrin

97. A 10-year-old girl presents to the emergency with high grade fever of 2-weeks duration and rashes over lower limbs for the last 7 days. Examination reveals mild pallor, generalized petechiae and hepatosplenomegaly. Investigations reveal : Hemoglobin 9 g/dL, total leucocyte count 2100/mm^3, platelet count 20,000/mm^3, peripheral smear shows pancytopenia, SGOT 50 IU/dL, SGPT 64 IU/dL, serum ferritin 1200 µg/L, serum fibrinogen 100 mg/dL and serum triglycerides of 350 mg/dL. The most likely diagnosis is :

(a) Aplastic anemia

(b) Immune thrombocytopenic purpura

(c) Hemophagocytic lymphohistiocytosis

(d) Acute promyelocytic leukemia

98. A 5-year-old boy, started on induction chemotherapy for acute lymphoblastic leukemia, develops acute abdominal pain on day 14 of chemotherapy. On abdominal examination, there is marked abdominal tenderness and Cullen's sign is positive. The most likely chemotherapeutic drug which can be implicated is :

(a) Vincristine

(b) Daunorubicin

(c) L-asparaginase

(d) Methotrexate

99. A 5-year-old boy who was started on treatment for Burkitt lymphoma develops acute onset respiratory distress and decreased urine output. Investigations reveal : Hb 8 g/dL, TLC 15000/mm^3, platelet count 1 lakh/mm^3, serum potassium 6·5 mEq/L, corrected serum calcium 6·7 mg/dL and serum creatinine 2 mg/dL. The most important drug for emergency management is :

(a) Dexamethasone

(b) Broad-spectrum antibiotics

(c) Rasburicase

(d) Folinic acid rescue

100. Consider the following statements regarding human milk banking :

1. The banks accept voluntary milk donations from lactating women who are given nominal payments governed by law.
2. Donor mothers are screened via blood tests for HIV, and Hepatitis B and C, similar to blood donation.
3. Pasteurized donor milk reduces the chances of NEC in preterm neonates.
4. Pasteurized donor milk is non-inferior to fresh mother's own milk (MOM).

Which of the statements given above are correct ?

(a) 1, 2 and 3

(b) 2 and 3 only

(c) 3 and 4 only

(d) 1, 2, 3 and 4

101. A term neonate weighing 2 kg, delivered to a primigravida mother through vaginal route and through clear liquor, is found having gasping respiratory efforts after performing the initial steps in the delivery room. The next step in resuscitation is :

(a) Initiate positive pressure ventilation with bag and mask using 30% oxygen

(b) Intubate and initiate positive pressure ventilation using 30% oxygen

(c) Initiate positive pressure ventilation with bag and mask using room air

(d) Intubate and initiate positive pressure ventilation using room air

102. A newborn delivered at 37 weeks gestation and birth weight 2·7 kg, presents at 12 h of life with bilious vomiting. On examination, RR is 36/m, HR is 110/m, CRT is < 3s, and there is abdominal distention. Abdominal radiograph reveals multiple air-fluid levels with absent distal gas pattern. The most likely etiology is :

(a) Malrotation leading to volvulus

(b) Congenital hypertrophic pyloric stenosis

(c) Jejunal-ileal atresia

(d) Necrotizing enterocolitis

103. Consider the following statements regarding the management of trachea-esophageal fistula in neonates :

1. The baby should be nursed in prone position.
2. The neonate should be kept nil per orally and started on intravenous fluids.
3. The neonate needs continuous oral suction using a slow suction device.
4. Surgery should be planned once the neonate attains 2·5 kg weight.

Which of the statements given above are correct ?

(a) 1 and 2 only

(b) 1, 2 and 3

(c) 2 and 3 only

(d) 3 and 4

104. An apparently well male neonate delivered by vaginal route in hospital is discharged on day 2 of life. He is brought to the outpatient department on day 4 of life as the mother complains of pink staining of his diapers. There is no bleeding from urethra or per rectum noticed during examination, and urine dipstick test for RBCs is negative. The baby is appearing playful and active. The most likely etiology of pink staining of diapers is :

(a) Porphyria

(b) Urate crystals in urine

(c) Hemoglobinuria

(d) Hematuria

105. A preterm neonate is brought to the emergency and the body temperature is noted to be 32°C. Which one of the following metabolic complications is unlikely ?

(a) Metabolic alkalosis

(b) Hypoglycemia

(c) Hyperbilirubinemia

(d) Hypoxemia

106. A 3-year-old boy is brought to the outpatient department with complaints of developmental delay. He can feed himself a biscuit, can draw a line, can climb steps, and only says bisyllables. Which one of the following developmental screening tools is ***not*** suitable for him ?

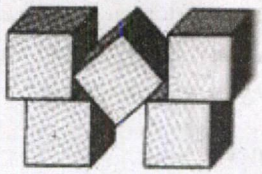
(a) Phatak's Baroda Screening Test

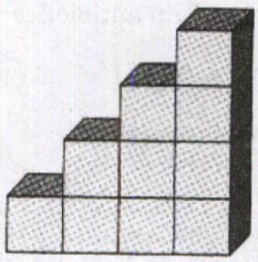
(b) Ages and Stages Questionnaire

(c) Trivandrum Development Screening Chart

(d) Denver II

107. An 8-year-old girl is provided a few cubes and asked to create the structure in the image provided. If she can create the Structure A, but cannot make the Structure B, her developmental quotient (DQ) in the fine motor domain is :

A. 

B. 

(a) 50

(b) 62·5

(c) 75

(d) 100

108. A 2-year-old boy was brought to the emergency when his mother noticed that he had developed dusky appearance and lethargy over the past 6 – 8 hours. The child had been prescribed some medicine for vomiting by a local practitioner. Examination revealed normal sized pupils reacting to light, GCS 9, and shallow breathing with cyanosis. Arterial blood gas revealed a PaO_2 of 80 mmHg and SpO_2 of 60%. Which one of the following drugs may be implicated ?

(a) Domperidone

(b) Granisetron

(c) Aprepitant

(d) Metoclopramide

109. A 12-year-old boy is brought to the emergency in an unconscious state with a history of shallow breathing and increasing drowsiness noticed for two hours. He is noticed to have a dry mouth, cold extremities, is limp and has pin point pupils. The emergency physician suspects poisoning. Which one of the following antidotes should be administered ?

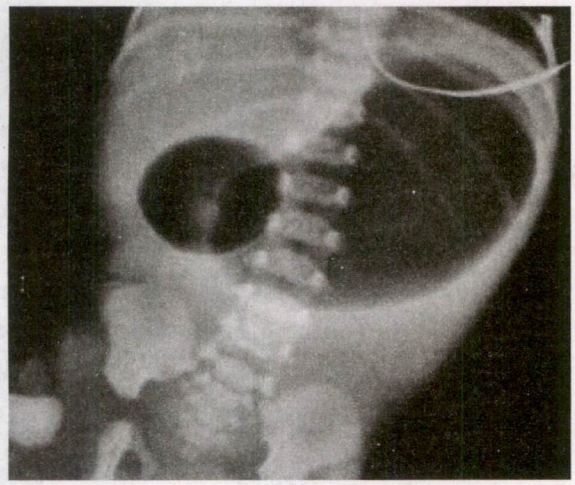
(a) Flumazenil

(b) Adrenaline

(c) Pralidoxime

(d) Naloxone

110. A neonate is noted to have bilious vomiting at 6 hours of life with abdominal distention. An X-ray is ordered (see image). The most likely diagnosis is :



(a) Pyloric stenosis

(b) Esophageal atresia

(c) Duodenal atresia

(d) Hirschsprung's disease

111. A 6-year-old boy is brought with complaints of involuntary, non-rhythmic, jerky movements of upper limbs and snorting sounds, noticed for the past 12 months. His MRI brain and EEG are normal. The child was mocked at by classmates in school and he stopped attending classes for the past 6 months. His ASLO titres and serum ceruloplasmin are non-contributory. The ideal therapy would be a trial of :

(a) Oral Clonidine

(b) Oral Methylphenidate

(c) Oral Benzodiazepines

(d) Oral Olanzapine

112. A 4-year-old unimmunized HIV-positive child on antiretroviral therapy for the last 2 years and weighing 15 kg is brought for vaccination. His records reveal a recent CD4 count of 750/mm^3, with no evidence of any opportunistic infections in the past. Which of the following statements are applicable to this child ?

1. Recombinant Hepatitis B vaccine can be safely administered.
2. MMR vaccine is always contraindicated.
3. BCG may be administered if chest radiograph is normal.
4. IPV is preferred over OPV.

Select the correct answer using the code given below :

(a) 1 and 2

(b) 2 and 3

(c) 1 and 4

(d) 2 and 4

113. As per the National Immunization Schedule, PCV (Pneumococcal Conjugate Vaccine) is offered at :

(a) 6 weeks, 10 weeks and 14 weeks

(b) 6 weeks and 14 weeks

(c) 6 weeks, 10 weeks and 9 months

(d) 6 weeks, 14 weeks, 9 months

114. Which one of the following vaccines is an *exception* to the principle "At least 4 weeks interval is needed between two doses of the same vaccine to ensure adequate immune response" ?

(a) Rabies vaccine

(b) HPV vaccine

(c) Varicella vaccine

(d) Hepatitis B vaccine

115. Administration of immunoglobulins interferes with the response to live vaccines, *except* :

(a) Measles vaccine

(b) Rubella vaccine

(c) Oral typhoid vaccine

(d) Mumps vaccine

116. A 14-year-old boy is reported by his neighbour to the police for repeated aggressive activities including beating up children in the neighbourhood. The boy's neighbour also noticed that he also snorts heroin sometimes. He will be categorized legally as suffering from :

(a) Oppositional defiant disorder

(b) Conduct disorder

(c) Juvenile delinquency

(d) Drug addiction

117. As per the National Vector Borne Disease Control Programme, the first-line agent for treatment of Kala-azar (visceral leishmaniasis) is :

(a) Amphotericin B, liposomal, IV, single dose

(b) Sodium stibogluconate, IV, 30-day regimen

(c) Oral Miltefosine, 28-day regimen

(d) Amphotericin B deoxycholate, IV, 30 doses

118. Which one of the following illnesses is ***not*** covered under the Rashtriya Bal Swasthya Karyakram ?

(a) Childhood cancer

(b) Down syndrome

(c) Goitre

(d) Rheumatic heart disease

119. A 2-year-old child is brought with complaints of not growing well. On examination, he weighs 8·1 kg, height 80 cm (WFL score between 0 and – 2 SD), has a mid-arm circumference (MUAC) of 11·5 cm and both his palms are white. There is no edema of the feet. As per IMNCI, he will be classified as :

(a) No acute malnutrition and anemia

(b) No acute malnutrition and severe anemia

(c) Moderate acute malnutrition and anemia

(d) Moderate acute malnutrition and severe anemia

120. A 2-year-old previously unimmunized girl is brought with poor feeding and fever for 6 days. On day 4 of fever, her mother noticed a maculopapular reddish rash starting from the face and spreading over the neck, chest, arms and trunk over the next one day and she has developed extensive mouth ulcers. The child has a mid-arm circumference of 11 cm but no edema. As per IMNCI, she will be classified as :

(a) Measles with eye or mouth complications

(b) Measles

(c) Severe complicated measles

(d) Measles with severe acute malnutrition

SPACE FOR ROUGH WORK

SPACE FOR ROUGH WORK

SPACE FOR ROUGH WORK

SPACE FOR ROUGH WORK