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T.B.C. : TDSP-O-GMPK

Test Booklet Series

Serial No.

0060977

## TEST BOOKLET

### Paper I

## GENERAL MEDICINE AND PEDIATRICS

# 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. Please note that it is the candidate's responsibility to encode and fill in the Roll Number and Test Booklet Series 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 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** 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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## GENERAL MEDICINE

1. Which of the following heart sounds are best heard with the bell of stethoscope ?

- I. Opening snap
- II. Systolic click
- III. Third heart sound
- IV. Mid diastolic murmur

Select the correct answer using the code given below :

- (a) I and IV
- (b) II and III only
- (c) III and IV
- (d) I, II and III

2. Consider the following statements for diagnosing ventricular aneurysm in a patient with recent myocardial infarction :

- I. Paradoxical impulse on chest wall
- II. Persistent ST elevation on ECG
- III. Unusual bulge from cardiac silhouette on X-ray
- IV. Presence of pulsus paradoxus

Which of the above are correct ?

- (a) I and II only
- (b) I and IV
- (c) I, II and III
- (d) II, III and IV

3. Which one of the following statements is correct for subcutaneous nodules in Rheumatic fever ?

- (a) They are present over flexor aspect of forearm
- (b) They are painful tender nodules
- (c) The usual size of these nodules is 3-5 cm
- (d) They typically appear more than 3 weeks after onset of other clinical manifestations

4. Which one of the following is correct with regard to Carey Coombs murmur ?

- (a) Soft systolic murmur due to mitral regurgitation
- (b) Soft mid-diastolic murmur due to mitral valvulitis
- (c) Harsh early diastolic murmur due to aortic regurgitation
- (d) Blowing late systolic murmur due to aortic stenosis

5. Which of the following statements is correct regarding the Opening Snap (OS) in a patient of mitral stenosis ?

- (a) OS is best heard with the bell of stethoscope
- (b) Intensity of OS becomes louder when the valve is calcified
- (c) OS moves closer to the second sound (S2) as the stenosis becomes more severe
- (d) OS is best heard at the second left intercostal space

6. Which one of the following responses to intravenous adenosine is correctly matched ?

<i>Arrhythmia</i>	<i>Response</i>
(a) Atrial fibrillation	– Termination
(b) Atrio-ventricular nodal reentrant tachycardia	– Termination
(c) Ventricular tachycardia	– Termination and complete recovery
(d) Atrial flutter	– Termination and complete recovery

7. Consider the following steps for using a metered dose inhaler (MDI) :

- I. Incline the head backward to minimize oropharyngeal deposition
- II. Remove the cap and shake the inhaler
- III. Breathe out gently and place the mouthpiece into the mouth
- IV. Hold the breath for 10 seconds
- V. Simultaneously, begin a slow deep inspiration, depress the canister and continue to inhale

Which one of the following is the correct sequence of using MDI ?

- (a) III, II, I, V, IV
- (b) II, I, IV, III, V
- (c) II, III, I, V, IV
- (d) III, I, II, IV, V

8. Under the Stepwise Approach to the management of Bronchial Asthma, which one of the following is the correct initial treatment at Step 1 for a patient diagnosed with Asthma ?

- (a) Low dose inhaled corticosteroid only
- (b) Low dose inhaled corticosteroid plus oral corticosteroid
- (c) Low dose inhaled corticosteroid plus long acting anti-muscarinic agents
- (d) Low dose inhaled corticosteroid plus leukotriene antagonist

9. A 62-year old male chronic smoker has been diagnosed with Chronic Obstructive Pulmonary Disease (COPD). On pulmonary function testing, the ratio of Forced Expiratory Volume in 1 second (FEV1) to Forced Vital Capacity (FVC) was 0.6 and FEV1 was 70% of predicted. What is the severity of airflow obstruction in this patient as per GOLD criteria ?

- (a) Stage I – Mild
- (b) Stage II – Moderate
- (c) Stage III – Severe
- (d) Stage IV – Very severe

10. Which one of the following correctly denotes the inheritance pattern of cystic fibrosis ?

- (a) Autosomal Dominant
- (b) Autosomal Recessive
- (c) X-linked Dominant
- (d) X-linked Recessive

11. Which of the following conditions are contraindications for noninvasive positive-pressure ventilation in patients with respiratory failure ?

- I. Craniofacial abnormalities
- II. Significant burns
- III. Respiratory failure with PaCO<sub>2</sub> of 60 mm Hg
- IV. Cardiovascular instability

Select the correct answer using the code given below :

- (a) I, II and III
- (b) I, II and IV
- (c) I, III and IV
- (d) II, III and IV

12. Which one of the following terms denotes the extensive sclerosis of the skin of the chest wall which restricts chest wall movement and is seen as a rare complication of systemic sclerosis ?

- (a) Flail Chest
- (b) Hidebound Chest
- (c) Barrel Chest
- (d) Pigeon Chest

13. Consider the following pleural fluid analysis :

pH	-	7.6
Pleural fluid protein	-	0.5 g/dL
Serum total protein	-	6.5 g/dL
Pleural fluid LDH	-	100 U/L
Serum LDH	-	300 U/L

What is the most likely diagnosis ?

- (a) Pancreatitis
- (b) Myxedema
- (c) Sarcoidosis
- (d) Rheumatoid arthritis

14. 'Masson Bodies' formed due to proliferation of immature collagen are a characteristic histopathological finding seen in which of the following conditions ?

- (a) Lymphocytic Interstitial Pneumonia
- (b) Cryptogenic Organizing Pneumonia
- (c) Desquamative Interstitial Pneumonia
- (d) Respiratory Bronchiolitis

15. Consider the following statements regarding respiratory function in old age :

- I. There is increasing ventilation-perfusion mismatch
- II. There is increased ventilatory response to hypoxia and hypercapnia
- III. There is a decline in maximum oxygen uptake leading to reduction in cardiorespiratory reserve
- IV. There is decline in the Forced Expiratory Volume to Forced Vital Capacity ratio (FEV<sub>1</sub>/FVC) by around 0.2% per year after the forties

Which of the statements given above are correct ?

- (a) I, II and III
- (b) I, II and IV
- (c) II, III and IV
- (d) I, III and IV

16. Which one of the following statements is correct in respect of pulmonary involvement in rheumatoid disease ?
- (a) Rheumatoid pulmonary nodules are usually asymptomatic and detected incidentally on imaging
  - (b) Rheumatoid pulmonary nodules are often solitary and located near hilum
  - (c) Pleural effusion in these patients is transudative and usually bilateral
  - (d) Combination of pleural effusion and pneumoconiosis in these patients is known as Caplan syndrome
17. Which one of the following conditions is a complication of bacterial pharyngitis involving extension of infection into the internal jugular veins leading to thrombosis and metastatic dispersal of the organism ?
- (a) Cystic Fibrosis
  - (b) Chronic Pulmonary Aspergillosis
  - (c) Lemierre syndrome
  - (d) Wegener's granulomatosis
18. A 42-year old man with history of alcohol dependency presents with progressive abdominal distension. Abdominal examination reveals a shifting dullness. Which one of the following is the most appropriate drug to relieve this abdominal distension ?
- (a) Octreotide
  - (b) Propranolol
  - (c) Lactulose
  - (d) Spironolactone
19. Which one of the following is the investigation of choice for diagnosing the presence of stones in the gall-bladder ?
- (a) Transabdominal ultrasound
  - (b) Erect X ray of abdomen
  - (c) Capsule endoscopy
  - (d) Computed Tomography
20. Which one of the following biologic agents used in the treatment of inflammatory Bowel Disease acts by inhibiting the enzyme 'Janus Kinase' ?
- (a) Infliximab
  - (b) Adalimumab
  - (c) Vedolizumab
  - (d) Tofacitinib
21. Melanosis coli, which occurs due to long term consumption of stimulant laxatives, presents as brown discoloration of colonic mucosa due to deposition of which one of the following pigments ?
- (a) Melanin
  - (b) Haemosiderin
  - (c) Lipofuscin
  - (d) Haemoglobin

22. Consider the following with regard to Gilbert Syndrome :

- I. Autosomal recessive trait of a mutation in gene for UDP-glucuronyl transferase enzyme
- II. Elevation of unconjugated bilirubin
- III. No stigmata of chronic liver disease other than jaundice
- IV. Early Liver biopsy recommended in patients with possible Gilbert Syndrome

Which of the above are correct ?

- (a) I and II only
- (b) II and III only
- (c) I, II and III
- (d) III and IV

23. The single most important treatment and prognostic factor in alcohol-related liver disease is

- (a) N-acetyl cysteine
- (b) Cessation of alcohol consumption
- (c) Liver transplantation
- (d) High dose vitamin E

24. A 40 year old man with a known case of chronic pancreatitis presents to the OPD with complaint of skin pigmentation over the abdomen. The patient gives a history of chronic use of a hot water bottle to relieve the abdominal discomfort. Which one of the following is the most appropriate diagnosis ?

- (a) Erythema infectiosum
- (b) Erythema marginatum
- (c) Erythema nodosum
- (d) Erythema ab igne

25. Which one of the following is correct regarding arginine vasopressin antagonist Tolvaptan ?

- (a) It is useful in hypovolemic hyponatremia
- (b) It antagonises the  $V_1$  receptor
- (c) It should be used for at least 1 year
- (d) It is an oral drug

26. Which one of the following conditions is caused by mutations in the gene that encodes the sodium-potassium-2-chloride cotransporter (NKCC2), and presents with sodium wasting, hypokalaemia, hypomagnesaemia and hypercalciuria ?

- (a) Alport syndrome
- (b) Bartter syndrome
- (c) Fanconi syndrome
- (d) Gitelman syndrome

27. A 52 year old male has uncontrolled diabetes. Which one of the following tests will help in early detection of nephropathy ?

- (a) Blood urea level
- (b) Serum creatinine level
- (c) Ultrasonography
- (d) Urine albumin

28. Autosomal dominant mutations in which one of the following genes may cause focal segmental glomerulosclerosis associated with abnormal genitalia, Wilm's tumour and mental retardation?
- WT1
  - INF2
  - LMX1B
  - APOL1
29. Kidney damage and Glomerular Filtration Rate (GFR) value between 15-29 mL/min/1.73 m<sup>2</sup> are found in which stage of Chronic Kidney Disease?
- Stage 2 (mild)
  - Stage 3A (mild to moderate)
  - Stage 4 (severe)
  - Stage 5 (kidney failure)
30. Which one of the following hereditary tubulo-interstitial kidney diseases has an autosomal recessive mode of inheritance?
- Medullary cystic kidney disease type 1
  - Medullary cystic kidney disease type 2
  - Nephronophthisis
  - Juvenile hyperuricaemic nephropathy
31. Which of the following findings in a patient are suggestive of acute nephritis?
- Hematuria
  - Oliguria
  - Reduced size of both kidneys
  - Edema
- Select the correct answer using the code given below:
- I and III
  - III and IV
  - I and II only
  - I, II and IV
32. A 35 year old male presents with increased urine output. On evaluation, his urinary output was around 4L/day; urinary osmolality was 200 mosmol/L. Which of the following are various differential diagnosis?
- Psychogenic polydipsia
  - Solute diuresis
  - Central diabetes insipidus
  - Nephrogenic diabetes insipidus
- Select the correct answer using the code given below:
- I, III and IV
  - I and III only
  - II and IV
  - I and IV only

33. Contralateral Homonymous upper quadrantanopia is the type of visual loss seen when the lesion is located at which one of the following anatomical locations ?

- (a) Frontal lobe
- (b) Temporal lobe
- (c) Parietal lobe
- (d) Occipital lobe

34. Which of the following are clinical features of migraine ?

- I. It is associated with dilatation of extracranial vessels
- II. Common migraine is seen without Aura
- III. Aura is most often visual

Select the correct answer using the code given below :

- (a) I, II and III
- (b) I and II only
- (c) II and III only
- (d) I and III only

35. A 50 year old man presents with brief episodes of lancinating unilateral facial pain, involving the buccal distribution. Pain is triggered by washing face with cold water. What is the most likely diagnosis ?

- (a) Migraine
- (b) Medication overuse headache
- (c) Chronic paroxysmal hemicrania
- (d) Trigeminal neuralgia

36. Which of the following are trigger factors for seizures ?

- I. Sleep deprivation
- II. Missed doses of antiepileptic drugs
- III. Recreational drug misuse
- IV. Physical exhaustion

Select the correct answer using the code given below :

- (a) II and III only
- (b) I and IV only
- (c) I, II and III only
- (d) I, II, III and IV

37. Which one of the following childhood epileptic disorders often needs long term treatment with anti epileptic drugs ?

- (a) Benign neonatal seizures
- (b) Febrile seizures
- (c) Benign rolandic epilepsy
- (d) Juvenile myoclonic epilepsy

38. Which of the following are clinical features of Parkinson's disease ?

- I. Reduced eye blinking
- II. Drooling of saliva
- III. Soft voice
- IV. Macrographia

Select the correct answer using the code given below :

- (a) I, II and III
- (b) I, II and IV
- (c) I, III and IV
- (d) II, III and IV

39. A 35 year female presents with easy fatigability. Investigations show that Hb is 6 g%; Red cell morphology is normocytic normochromic; and reticulocyte production index is 5.5. Which one of the following conditions favours this abnormality ?

- (a) Iron deficiency anemia
- (b) Sideroblastic anemia
- (c) Folate deficiency
- (d) Intravascular hemolysis

40. A 46 year old lady on vegan diet for a decade presents with chief complaints of tingling and numbness in lower limbs for two months and a history of swaying while walking through narrow corridors. Which one of the following blood tests is advisable for diagnosis in this patient ?

- (a) Serum protein electrophoresis
- (b) Anti-gliadin antibodies
- (c) Vitamin 25(OH) D level
- (d) Vitamin B12 levels

41. Which one of the following causes low-volume erythrocytosis ?

- (a) Polycythemia Rubra Vera
- (b) Exogenous testosterone therapy
- (c) Gaisbock's syndrome
- (d) High altitude

42. First line therapy in chronic phase of chronic myeloid leukemia is

- (a) Rituximab
- (b) Thalidomide
- (c) Imatinib
- (d) Chlorambucil

43. With regard to management of idiopathic thrombocytopenic purpura, consider the following statements :

- I. All patients with ITP with platelet count less than  $100 \times 10^9/L$  should receive high dose of glucocorticoids
- II. For patient with spontaneous bleeding, 40 mg of dexamethasone daily is indicated for 4 days
- III. Intravenous immunoglobulin can raise the platelet count
- IV. Life threatening bleeding should be treated with platelet transfusion

Which of the statements given above are correct ?

- (a) I, II and III
- (b) II, III and IV
- (c) I, III and IV
- (d) I, II and IV

44. Which of the following drugs can cause secondary weight gain ?

- I. Insulin
- II. Propranolol
- III. Orlistat
- IV. Thyroxine

Select the correct answer using the code given below :

- (a) I, II and IV
- (b) I and III
- (c) II, III and IV
- (d) I and II only

45. Under which one of the following conditions, the HPA axis suppression is likely to result in crisis due to adrenal insufficiency following withdrawal of glucocorticoids ?

- (a) If glucocorticoids have been given by intravenous route for five days
- (b) If glucocorticoids have been administered orally for one week
- (c) If glucocorticoids have been prescribed repeatedly within the previous year
- (d) If the dose is less than equivalent of 5 mg prednisolone per day

46. Wilson's disease has which of the following inheritance ?

- (a) X-linked recessive
- (b) Autosomal dominant
- (c) Autosomal recessive
- (d) It is an acquired disease

47. Which of the following can be used for the management of severe hyperkalaemia ?

- I. Intravenous calcitonin
- II. Intravenous sodium bicarbonate
- III. Oral sodium polystyrene sulphate
- IV. Intravenous calcium gluconate

Select the correct answer using the code given below :

- (a) I, II and IV
- (b) II, III and IV
- (c) I and II only
- (d) I and IV only

48. Which one of the following conditions can cause euvolaemic hyponatraemia ?

- (a) Adrenocortical failure
- (b) Hypothyroidism
- (c) Nephrotic syndrome
- (d) Burns

49. Which one among the following vectors transmits the filaria Loa Loa ?
- Simulium
  - Chrysops
  - Cyclops
  - Culicoides
50. Which of the following is the most favourable prognostic parameter in Bell's palsy ?
- Incomplete paralysis in the first week
  - Mild CSF lymphocytosis
  - Denervation in EMG after 10 days
  - Pain behind the ear
51. Which one of the following groups of drugs is ineffective against gram positive bacteria ?
- Monobactams
  - Glycopeptides
  - Fluoroquinolones
  - First generation cephalosporins
52. Which one of the following statements is correct regarding leprosy ?
- Type 1 Leprosy Reaction is also called erythema nodosum leprosum
  - Type 2 Leprosy Reaction is an immune complex mediated syndrome called arthus phenomenon
  - 'Lion face' appearance is seen in tuberculoid leprosy
  - Nose is the last site of involvement in lepromatous leprosy
53. A 56 year old gardener presents with an ulcerative nodule with purulent discharge on his right index finger. He had a prick with a thorn, at the same site around a month back. Which one of the following infections is most likely ?
- Chromoblastomycosis
  - Mycetoma
  - Phaeohyphomycosis
  - Sporotrichosis
54. A 36 year old man presents with decreased appetite, mouth soreness, diarrhoea and irritability. On examination he has a bright red tongue with a pigmented scaly rash around the neck. Which one of the following food items in his diet has a bearing on his disease ?
- Rice
  - Wheat
  - Corn
  - Fish

55. Acrodermatitis enteropathica is an autosomal recessive metabolic disorder which affects the absorption of which one of the following micronutrients ?

- (a) Iodine
- (b) Zinc
- (c) Iron
- (d) Selenium

56. Consider the following statements with regard to the treatment of vitamin A deficiency :

- I. Repeated high doses of retinol can cause liver damage and teratogenicity
- II. Acute overdose of vitamin A may lead to increased intracranial pressure and skin desquamation
- III. Regular vitamin A supplementation is also recommended for pregnant women even in countries where vitamin A deficiency is not endemic
- IV. Excessive intake of carotene may cause harmless orange pigmentation of the skin

Which of the statements given above are correct ?

- (a) I, II and III
- (b) I, II and IV

(c) I, III and IV

(d) II, III and IV

57. Koebner phenomenon is seen in which one of the following conditions ?

- (a) Psoriasis
- (b) Acne Vulgaris
- (c) Bechet's disease
- (d) Leprosy

58. Consider the following regarding the human hair growth cycle :

- I. Anagen is a phase of active hair growth
- II. Telogen is a transitional phase
- III. Catagen is a resting phase

Which of the statements given above is/are correct ?

- (a) I only
- (b) III only
- (c) I and II only
- (d) I, II and III

59. Consider the following statements regarding oculocutaneous albinism :

- I. The disease results from genetic abnormalities leading to destruction of melanocytes
- II. Type 1 albinism is due to a defect in the tyrosinase gene
- III. Patients may present with poor vision, rotator nystagmus and alternating strabismus
- IV. Patients are at an increased risk of sunburn or developing skin cancer

Which of the statements given above are correct ?

- (a) I, II and III
- (b) I, II and IV
- (c) I, III and IV
- (d) II, III and IV

60. A 42 year old man presented with recurrent oral ulcers since one year, episodes of redness of eye and genital ulcers. Which one of the following tests is of diagnostic value ?

- (a) Mantoux test
- (b) Drug-sensitivity test
- (c) Pathergy test
- (d) Patch test

61. Which of the following joints are commonly affected in osteoarthritis ?

- I. First metatarsophalangeal joint
- II. Proximal interphalangeal joint
- III. Ankle joint
- IV. 5th and 6th cervical vertebrae joint

Select the correct answer using the code given below :

- (a) I and II only
- (b) III and IV only
- (c) I, II and IV only
- (d) I, II, III and IV

62. Which of the following are causes of reversible dementia ?

- I. Hypothyroidism
- II. Vitamin B12 deficiency
- III. Dementia with lewy body
- IV. Thiamine deficiency

Select the correct answer using the code given below :

- (a) I, II and III
- (b) I, II and IV
- (c) I, III and IV
- (d) II, III and IV

63. Which of the following are clinical features of Fronto-Temporal dementia ?

- I. Personality change
- II. Language disturbance
- III. Memory may be preserved in early stages
- IV. Anti-cholinesterases are the drug of choice for treatment

Select the correct answer using the code given below :

- (a) I, II and III
- (b) I, II and IV
- (c) I, III and IV
- (d) II, III and IV

64. Which one of the following is the myelinating cell of Central Nervous System ?

- (a) Astrocyte
- (b) Microglia
- (c) Schwann cell
- (d) Oligodendrocyte

65. Which one of the following is the correct description of Mee's lines, seen in chronic arsenic poisoning ?

- (a) Transverse white lines on nails of fingers and toes
- (b) Transverse red lines on the skin of palms and soles
- (c) Transverse white lines on the skin of palms and soles
- (d) Transverse red lines on the nails of fingers and toes

66. Fomepizole is an antidote used to treat poisoning from which of the following substances ?

- I. Methanol
- II. Digoxin
- III. Cocaine
- IV. Ethylene glycol

Select the correct answer using the code given below :

- (a) I and II
- (b) II and III
- (c) III and IV
- (d) I and IV

67. The 4A Test is a screening tool for detection of delirium. Which of the following parameters are included in the 4AT tool ?

- I. Alertness
- II. Apnoea
- III. Abbreviated Mental Test (AMT4)
- IV. Attention

Select the correct answer using the code given below :

- (a) I, II and III
- (b) I, II and IV
- (c) I, III and IV
- (d) II, III and IV

68. Which of the following combinations of lab test results is indicative of heavy alcohol consumption, with more than 60% sensitivity and specificity?
- Gamma glutamyl transferase (GGT) > 35 U/L and alkaline phosphatase > 45 U/L
  - Carbohydrate-deficient transferrin (CDT) > 20 U/L and serum uric acid < 7 mg/dL
  - High normal MCV > 91 fL and CDT < 20 U/L
  - GGT > 35 U/L and CDT > 20 U/L
69. What is the antidote for belladonna poisoning?
- Physostigmine
  - Amitriptyline
  - Atropine
  - Flumazenil
70. Which one of the following prevents gastrointestinal absorption of thallium?
- Calcium carbonate
  - Prussian blue
  - Penicillamine
  - Potassium permanganate
71. A 45 year old farmer came with accidental consumption of a pesticide. He complained of frequent urination and excessive salivation. Which one of the following toxidromes is most likely to be associated with this poisoning?
- Serotonergic
  - Cholinergic
  - Adrenergic
  - Hypnotic
72. Consider the following regarding salicylate poisoning:
- Arterial pH of 7.25, anion gap of 18 mmol/L
  - Arterial pH of 7.25, anion gap of 10 mmol/L
  - pCO<sub>2</sub> of 20 mm Hg
  - pCO<sub>2</sub> of 48 mm Hg
- Which disturbance is likely to be encountered?
- I and III
  - II and III
  - I and IV
  - II and IV
73. Which of the following statements are typical for classic heat stroke?
- Older patient
  - Normokalemia
  - Hyponatremia
  - Marked lactic acidosis
- Select the correct answer using the code given below:
- I and III
  - I and II
  - III and IV
  - II and IV

74. Which of the following statements are correct regarding Weil's disease ?

- I. It is caused by a virus named leptospira
- II. Acute kidney injury can lead to oliguria in this disease
- III. Microscopic agglutination is the investigation of choice
- IV. Ceftriaxone given parenterally is effective treatment

Select the correct answer using the code given below :

- (a) I, II and III
- (b) II, III and IV
- (c) I, II and IV
- (d) I, III and IV

75. Which of the following are components of SOFA scoring system ?

- I.  $\text{PaO}_2/\text{FiO}_2$  ratio
- II. Mean arterial pressure
- III. Glasgow coma scale
- IV. Prothrombin Time with INR

Select the correct answer using the code given below :

- (a) I, II and III
- (b) I, II and IV
- (c) I, III and IV
- (d) II, III and IV

76. What are the components to establish the diagnosis of Brain Death ?

- I. Absent brain stem reflexes
- II. Apnoea in presence of elevated  $\text{PCO}_2$
- III. Hypothermia
- IV. Irreversible and unresponsive coma

Select the correct answer using the code given below :

- (a) I, II and III
- (b) I, II and IV
- (c) I, III and IV
- (d) II and IV only

77. The most common cause for non-traumatic sub-arachnoid haemorrhage is

- (a) A-V malformation
- (b) Saccular aneurysm rupture
- (c) Extension from primary intracerebral haemorrhage
- (d) Idiopathic

78. Peri-operative respiratory failure is an example of

- (a) Type I respiratory failure
- (b) Type II respiratory failure
- (c) Type III respiratory failure
- (d) Type IV respiratory failure

79. The murmur of mitral regurgitation is best heard at

- (a) Tricuspid area
- (b) Aortic area
- (c) Cardiac apex
- (d) Pulmonary area

80. A 28 year female presented to emergency with fever, agitation and delirium. She was on regular medication of Carbimazole 40 mg daily, but missed her doses for the last 2 days. Which of the following scoring systems would you like to do to assess severity of disease ?

- (a) DAS 28 score
- (b) Burch-Wartofsky score
- (c) Expanded Disability Status Scale
- (d) Sequential Organ Failure Assessment Score

81. Out of the following areas of brain, which area is most commonly affected on brain imaging in Wilson's disease ?

- (a) Cerebellum
- (b) Sub-cortex
- (c) Thalamus
- (d) Basal ganglia

82. Which of the following are secondary iron overload conditions ?

- I. Transfusion related iron load
- II. Thalassemia
- III. Hepatitis C associated liver disease

Select the correct answer using the code given below :

- (a) I, II and III
- (b) I and II only
- (c) II and III only
- (d) I and III only

83. Which of the following are features of Alzheimer's disease ?

- I. It is a disorder of cerebral cortical function
- II. Only short term memory is affected
- III. Patients deny that there is anything wrong
- IV. Depression is commonly present

Select the correct answer using the code given below :

- (a) I, II and III
- (b) I, II and IV
- (c) I, III and IV
- (d) II, III and IV

84. Glymphatics is the lymphatic like structure of which system ?

- (a) Central Nervous System
- (b) Respiratory
- (c) Renal
- (d) Gastro-intestinal

85. Which one of the following statements is correct in the diagnosis of Giardiasis ?

- (a) Stool sample at 2-3 days interval should be examined for cysts
- (b) String test is done to find out cysts of Giardia lamblia
- (c) Jejunal biopsy samples can show presence of larvae of Giardia lamblia
- (d) Cystic form of Giardia lamblia remains viable in water upto 1 week only

86. In clinical assessment of an elderly patient, 'the get up and go test' is used to evaluate which of the following ?

- (a) Gait and balance
- (b) Cognition
- (c) Driving ability
- (d) Urinary incontinence

87. Treatment of first choice in acute Gout is

- (a) Oral Methotrexate
- (b) Oral Colchicine
- (c) Allopurinol
- (d) Sulfasalazine

88. A 56 year male came with acute onset breathlessness and found to have pneumothorax. The resident doctor decided to insert intercostals drain. Which one of the following sites is suitable for such a procedure ?

- (a) Hesselbach's triangle
- (b) Petilis triangle
- (c) Triangle of safety
- (d) Triangle of auscultation

89. Which one of the following is an antidote for Rivaroxaban and Apixaban, when reversal of anticoagulation is needed due to uncontrolled bleeding ?

- (a) Idarucizumab
- (b) Andexanet Alfa
- (c) Hydroxocobalamin
- (d) Glucarpidase

90. Which of the following are included in common causes of mediastinal masses in superior and anterior mediastinum ?

- I. Goitre
- II. Thymic tumour
- III. Neurogenic tumour

Select the correct answer using the code given below :

- (a) I and II only
- (b) II and III only
- (c) I and III only
- (d) I, II and III

91. Which one of the following is used to reverse the anticoagulant effects of Dabigatran ?
- Glucarpidase
  - Desferrioxamine
  - Idarucizumab
  - Protamine
92. Which one of the following is contraindication of doing a wireless capsule endoscopy ?
- Coeliac disease
  - Small bowel stricture
  - Obscure gastrointestinal bleeding
  - Small bowel Crohn's disease
93. Which one of the following is the causative organism of Erythrasma, a mild, localized and superficial skin infection ?
- Corynebacterium pseudo tuberculosis*
  - Corynebacterium minutissimum*
  - Corynebacterium diphthariae*
  - Corynebacterium matruchotii*
94. Which one of the following is correctly matched regarding classification of portal hypertension according to site of vascular obstruction ?
- Sinusoidal – Venocclusive disease
  - Pre-hepatic presinusoidal – Portal vein thrombosis
  - Intrahepatic presinusoidal – Cirrhosis
  - Post-hepatic post sinusoidal – Schistosomiasis
95. Which one of the following is a secondary cause of headache ?
- Migraine
  - Tension-type headache
  - Trigeminal autonomic cephalgia
  - Medication overuse headache
96. A 32 year old man presents with history of recurrent jaundice over the previous decade. Family gives history of the patient having episodes of facial grimacing. Which one of the following is a clinical clue to the diagnosis ?
- Adenoma sebaceum in the mid face
  - Erythema nodosum on the skin
  - Kayser-Fleisher rings in the cornea
  - Olser's nodes at the finger tips

## PEDIATRICS

97. Which of the following are causes of secondary immunodeficiency in children ?

- I. Diphenylhydantoin
- II. Severe malnutrition
- III. Post-varicella state
- IV. Nephrotic syndrome

Select the correct answer using the code given below :

- (a) I, II and III
- (b) I, II and IV
- (c) I, III and IV
- (d) II, III and IV

98. Which of the following statements are correct regarding vaccination routes for children ?

- I. Hepatitis B vaccine given in deltoid region has reduced efficacy
- II. Two vaccines may be given in the same thigh, but separated by 1 inch
- III. Separate sites are used when administering a vaccine and an immunoglobulin
- IV. Two intramuscular vaccines may be given on the same day but in separate limbs

Select the answer using the code given below :

- (a) III only
- (b) I and III
- (c) II and III
- (d) I and IV

99. A radiopaque density may be noticed in poisoning by which of the following agents ?

- (a) Phenazopyridine
- (b) Ethylene glycol
- (c) Chloroquine
- (d) Chloral hydrate

100. Which of the following syndromes are caused due to genomic imprinting ?

- I. Rubinstein Taybi syndrome
- II. Prader-Willi syndrome
- III. Angelman syndrome
- IV. Edward syndrome

Select the correct answer using the code given below :

- (a) I and III
- (b) II and III
- (c) II and IV
- (d) I and IV

101. As per POCSO (Protection of Children from Sexual Offences) Act 2012, sexual assault is considered aggravated when

- I. the abuse involves use of physical violence
- II. the abused child is disabled
- III. the abuse is committed by staff of an educational institution
- IV. the abuse is committed by an immediate family member/first degree relative

Which of the above are correct ?

- (a) I and IV
- (b) I and III
- (c) II and III
- (d) II and IV

102. The mother of a 14-month-old normally developing baby comes to you for feeding advice. Which of the following would be appropriate for her as per the IMNCI (Integrated Management of Neonatal and Childhood Illness) Program ?

- I. Breastfeed as often as the child wants
- II. Keep the child in your lap and feed with your own hands

III. Offer food from the family pot

IV. Give 3 to 4 meals each day

Select the correct answer using the code given below :

- (a) II, III and IV
- (b) I, III and IV
- (c) I, II and III
- (d) I, II and IV

103. For a sick child aged 4 years, which of the following are signs of "severe pneumonia or very severe disease", as per IMNCI (Integrated Management of Neonatal and Childhood Illness) Program ?

I. Fast breathing (Greater than or equal to 40 breaths per minute)

II. Child vomits everything

III. Stridor in a calm child

IV. Chest indrawing

Select the correct answer using the code given below :

- (a) I and II
- (b) II and III
- (c) III and IV
- (d) II and IV

104. In a child aged  $3\frac{1}{2}$  years with an ear problem which one of these situations merits urgent referral to hospital ?

- (a) Pus seen draining from the ear, and discharge reported for less than 14 days
- (b) Pus seen draining from the ear, and discharge reported for more than or equal to 14 days
- (c) Tender swelling behind the ear
- (d) Pus seen draining from both ears, irrespective of duration

105. Upto 10% of cases of Autism Spectrum Disorder (ASD) may be caused by genetic conditions. Which of the following are known to be associated with ASD ?

- I. Tuberos sclerosi
- II. Fragile X syndrome
- III. Prader-Willi syndrome
- IV. Patau syndrome

Select the correct answer using the code given below :

- (a) I and II
- (b) I and III
- (c) II and III
- (d) I and IV

106. Which of the following are characteristic features of cerebral palsy ?

- I. Disorder of movement
- II. Permanent nature
- III. Progressive course
- IV. Disorder of posture

Select the correct answer using the code given below :

- (a) I, II and III
- (b) I, II and IV
- (c) II, III and IV
- (d) I, III and IV

107. Which of the following are the tools used for classification of spasticity in a child with cerebral palsy ?

- I. Gross Motor Function Classification System
- II. Medical Research Council System
- III. Modified Connors Scale (Connors-II)
- IV. Modified Ashworth Scale

Select the correct answer using the code given below :

- (a) I and II
- (b) II and III
- (c) III and IV
- (d) I and IV

108. Which of the following medications may be used in a child diagnosed with Attention Deficit Hyperactivity Disorder ?

- I. Carbamazepine
- II. Methylphenidate
- III. Atomoxetine
- IV. Clonazepam

Select the correct answer using the code given below :

- (a) I and III
- (b) II and III
- (c) II and IV
- (d) I and IV

109. Which of the following are included as a "Deficiency" under the Rashtriya Bal Swasthya Karyakram (RBSK) ?

- I. Hypothyroidism
- II. Vitamin A deficiency
- III. Anemia
- IV. Vitamin D deficiency

Select the correct answer using the code given below :

- (a) I, II and III

(b) I, II and IV

(c) I, III and IV

(d) II, III and IV

110. Which of the following statements are correct regarding management of hyperkalemia in a child ?

- I. Intravenous calcium (gluconate or chloride) is given to enhance cellular uptake of potassium
- II. Beta adrenergic agonists (salbutamol or terbutaline) are used to stabilize myocardial cell membrane
- III. Regular insulin and glucose given intravenously enhance cellular uptake of potassium
- IV. Sodium polystyrene sulfonate enhances total body potassium elimination

Select the answer using the code given below :

- (a) I and II
- (b) II and III
- (c) I and IV
- (d) III and IV

111. Which of the following statements are correct about oral rotavirus vaccines ?

- I. The storage should be at 2-8°C
- II. The vaccine should be used within 2 hours of reconstitution or opening
- III. Past history of intussusception is a contraindication
- IV. The vaccine can be given if the baby has ongoing diarrhoea

Select the answer using the code given below :

- (a) I and II
- (b) III and IV
- (c) I and III
- (d) II and IV

112. A child can make a tower of 3 blocks, runs, copies his mother while sweeping and has a vocabulary of 8-10 words. His developmental age is

- (a) 12 months
- (b) 15 months
- (c) 18 months
- (d) 24 months

113. A child can ride a tricycle, copies a circle, knows name and gender. The developmental age of this child is

- (a) 2 years
- (b) 3 years
- (c) 4 years
- (d) 5 years

114. A teen boy with birth weight of 2.8 kg is born to a primigravida mother through vaginal delivery and cried immediately after birth. Which of the following statements are correct regarding his initial care after birth ?

- I. The baby should be initiated on breastfeeding within one hour of birth
- II. The baby should be kept in a separate area from the mother
- III. The baby should be administered with 0.5 mg of vitamin K intramuscularly
- IV. The baby should be thoroughly examined for congenital malformations from head to toe

Select the answer using the code given below :

- (a) I and II
- (b) I and III
- (c) II and III
- (d) I and IV

115. Which one of the following oral drugs may be used in the management of super-refractory status epilepticus ?

- (a) Clonazepam
- (b) Clobazam
- (c) Lamotrigine
- (d) Topiramate

116. Which of the following statements are correct regarding the use of benzodiazepines in the initial management of status epilepticus ?

- I. Upto two doses may be used 5 minutes apart, if seizures are not controlled
- II. For Lorazepam, only a single dose should be used, even if seizures are not controlled
- III. Dose of midazolam at this stage is 1-15  $\mu\text{g}/\text{kg}/\text{min}$  infusion
- IV. Dose of both lorazepam and midazolam is 0.1 mg/kg

Select the answer using the code given below :

- (a) I and III
- (b) I and IV
- (c) II and III
- (d) II and IV

117. Which of the following statements are correct regarding hypernatremia in children ?

- I. Diabetes insipidus due to a deficiency of antidiuretic hormone (ADH) may cause hypernatremia

II. Addison disease may be associated with hypernatremia

III. Use of boiled skimmed milk can lead to hypernatremia

IV. Use of lactulose can lead to hypernatremia

Select the answer using the code given below :

- (a) I, III and IV
- (b) II, III and IV
- (c) I, II and III
- (d) I, II and IV

118. Which of the following statements are correct regarding the management of gastrointestinal bleeding in children ?

I. Somatostatin or octreotide infusion should be given for at least 7 days after stoppage of initial bleeding to prevent rebleeding

II. Endoscopic Sclerotherapy (EST) involves endoscopic injection of N-butyl-2-cyanoacrylate or isobutyl-2-cyanoacrylate

III. EST has upto 90% efficacy in controlling acute bleeding

IV. Following an episode of acute variceal bleeding, all patients should receive secondary prophylaxis to prevent rebleeding

Select the answer using the code given below :

- (a) I and II
- (b) I and III
- (c) III and IV
- (d) II and IV

119. Which of the following are advantages of endotracheal intubation, in a child requiring pediatric advanced life support ?

- I. Inspiratory time can be controlled
- II. Positive end-expiratory pressure can be provided
- III. Peak expiratory pressure can be controlled
- IV. Reduced risk of aspiration of gastric contents

Select the correct answer using the code given below :

- (a) I, II and III
- (b) I, II and IV
- (c) I, III and IV
- (d) II, III and IV

120. Which of the following are causes of hypocalcemia in a child ?

- I. Hypomagnesemia
- II. Hypophosphatemia
- III. Metabolic acidosis
- IV. Pseudohypoparathyroidism

Select the correct answer using the code given below :

- (a) I and II
- (b) II and III
- (c) III and IV
- (d) I and IV

**SPACE FOR ROUGH WORK**

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