

C.M.S. Exam 2022

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

T.B.C. : GHTR-U-JUY

Test Booklet Series

Serial No.

0042173

TEST BOOKLET GENERAL MEDICINE AND PEDIATRICS 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. 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 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. A 52 year old man with history of coronary artery disease is currently on sublingual nitroglycerin 0.5 mg, SOS, metoprolol 50 mg twice a day, aspirin 75 mg once a day, enalapril 5 mg once a day, for the last one year. The patient is now complaining of breathlessness and wheeze. Which one of the following drugs is most likely to be implicated for this new symptom ?

- (a) Enalapril
- (b) Metoprolol
- (c) Nitroglycerin
- (d) Aspirin

2. A patient with ischaemic heart disease on regular follow-up has a resting heart rate of 90 beats/minute. The patient is taking metoprolol 50 mg twice a day. Which one of the following drugs may be added to his prescription if he also has signs of heart failure ?

- (a) Ranolazine
- (b) Diclofenac
- (c) Prednisolone
- (d) Ivabradine

3. An 18 year old boy got frost bite of left feet after working in a snowy field for 5-6 hours. He complained of pain, numbness and limited movement of his toes. The skin appeared white and waxy. Which one of the following is contradicted as initial treatment ?

- (a) Rewarming by immersion of feet in water bath at 40-44°C
- (b) Massage

- (c) Cleaning of injured area with soap
- (d) Use of analgesia and sterile dressing

4. Which of the following anti-coagulant agents can be administered by oral route ?

- 1. Rivaroxaban
- 2. Fondaparinux
- 3. Apixaban
- 4. Dabigatran

Select the correct answer using the code given below :

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

5. Which of the following drugs may be associated with leg swelling ?

- 1. Calcium channel blockers
- 2. NSAIDs
- 3. Glucocorticoids
- 4. Mineralocorticoids

Select the correct answer using the code given below :

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

6. Which of the following produce loud S1 on cardiac auscultation ?

1. Anaemia
2. Pregnancy
3. Thyrotoxicosis
4. Mitral regurgitation

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 and 3 only

7. Which of the following are correct about Ivabradine ?

1. It may be of use in severe heart failure
2. It acts on SA node
3. It reduces heart rate
4. It is effective in atrial fibrillation

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 and 3 only

8. Left atrial dilatation on X-ray chest is characterised by which of the following ?

1. Straight left heart border
2. Rounding of left heart border

3. Double cardiac shadow

4. Widening of the angle of carina

Select the correct answer using the code given below :

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

9. A 30 year old male is being evaluated for shortness of breath. On examination of the jugular venous pulse (JVP), there is a rise in the JVP on inspiration. Which one of the following is most likely diagnosis ?

- (a) Constrictive pericarditis
- (b) Atrial septal defect
- (c) Aortic regurgitation
- (d) Severe mitral stenosis

10. A 24 year old man presents with acute onset shortness of breath with precordial chest pain. ECG reveals ST elevation with upward concavity and PR segment depression in lead V₂ to V₆ and reciprocal changes in lead aVR. The most likely diagnosis is

- (a) Anterior wall myocardial infarction
- (b) Acute pericarditis
- (c) Anterior wall aneurysm
- (d) Aortic dissection

11. Which of the following are Controller Therapies in the management of acute asthma ?

1. Anticholinergics
2. Systemic glucocorticoids
3. Inhaled glucocorticoids
4. Omalizumab

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

12. Low pleural fluid glucose (< 60 mg%) may be observed in which of the following ?

1. Pyogenic pleural effusion
2. Rheumatoid plueritis
3. Malignant pleural effusion
4. Hepatic hydrothorax

Select the correct answer using the code given below :

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

13. Which of the following are correct regarding Idiopathic Pulmonary Fibrosis ?

1. Radiological pattern of usual interstitial pneumonia
2. Finger clubbing
3. More common in elderly

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

14. Diagnostic work-up for a case of suspected Bronchial asthma should reveal which of the following abnormalities ?

1. Reduced FEV₁/FVC
2. Increased functional residual volume
3. Reduced diffusion capacity
4. Increment in FEV₁ in response to inhaled bronchodilators

Select the correct answer using the code given below :

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

15. Which of the following conditions predispose to obstructive sleep apnea ?

1. Hyperthyroidism
2. Acromegaly
3. Obesity
4. Use of alcohol/sedatives

Select the correct answer using the code given below :

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

16. Which of the following are correct with regard to acute fatty liver of pregnancy ?

1. It is typically present in first trimester
2. It is more common in multiple pregnancies
3. Liver biopsy is rarely needed
4. Delivery of fetus is indicated

Select the correct answer using the code given below :

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

17. Which one of the following are markers of poor prognosis in acute pancreatitis ?

1. Elderly individual
2. Increased white blood cell count
3. Low serum calcium
4. Hypercarbia

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

18. Which of the following are the common causes of acute pancreatitis ?

1. Gallstone
2. Alcohol
3. Post-ERCP
4. Campylobacter jejuni

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

19. Which of the following are the aetiologies of haemochromatosis ?

1. Thalassaemia
2. Anaemia of pyruvate kinase deficiency
3. Chronic cor pulmonale
4. Porphyrria cutanea tarda

Select the correct answer using the code given below :

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

20. Which of the following drugs are implicated in peptic ulcer disease, not caused by *Helicobacter pylori* and NSAIDs ?

1. Clopidogrel
2. Glucocorticoids
3. Bisphosphonates
4. Colloidal bismuth subcitrate

Select the correct answer using the code given below :

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

21. Which of the following are symptoms of irritable bowel syndrome ?

1. Gas and flatulence
2. Abdominal pain
3. Blood in stools
4. Diarrhoea

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

22. Vertical transmission of hepatitis B can be prevented by which of the following interventions ?

1. Passive immunisation of infant at birth
2. Active immunisation of infant at birth
3. Antiviral therapy in third trimester for mother with HBV-DNA level of > 2,00,000 IU/mL

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

23. Which of the following are correct in respect of jaundice ?

1. Patients complain of darkening of urine before they notice jaundice
2. Jaundice is usually detectable with a serum bilirubin level of over 1.8 mg/dl
3. In Gilbert syndrome, jaundice is more noticeable after fasting

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

24. Irritable bowel syndrome is favoured by which of the following ?

1. Worsening of symptoms by stress
2. Recurrent abdominal discomfort
3. Age more than 50 years at onset
4. Alternating diarrhoea and constipation

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

25. The diagnosis of protein losing enteropathy can be confirmed by

- (a) Hydrogen breath test
- (b) Fecal clearance of alpha-1 anti-trypsin
- (c) Fecal ^{51}Cr labelled transthyretin level
- (d) Fecal calprotectin level

26. RBC casts on urine analysis are seen in which of the following ?

1. Glomerulonephritis
2. Interstitial nephritis
3. Vasculitis
4. Malignant hypertension

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 and 3 only

27. Which of the following are correct regarding Essential Tremors ?

1. It may present at any age
2. Head is almost never involved
3. Tremor may improve with small amount of alcohol

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

28. Which of the following drugs may be associated with Parkinson's disease ?

1. Atypical anti-psychotic drugs
2. Lithium
3. MPTP (methyl-phenyl-tetrahydro-pyridine)

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

29. Which of the following are suggestive of Parkinson's disease ?

1. Lead pipe rigidity
2. Cog wheel rigidity
3. Festinating gait
4. Romberg test positive

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, 3 and 4

30. Which of the following are correct regarding Idiopathic Parkinson's disease ?

1. Motor symptoms are almost always initially symmetrical
2. Non-motor symptoms include hyposmia and constipation
3. Cognition is spared in early disease
4. Speech may become softer and indistinct

Select the correct answer using the code given below :

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

31. Which of the following are correct with regard to Levodopa ?

1. It is most effective for relieving tremors
2. Only a small portion of total drug reaches the brain
3. Nausea may be offset by domperidone
4. It may trigger hallucinations

Select the correct answer using the code given below :

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

32. Which of the following are risk factors for Stroke ?

1. Sickle cell disease
2. Cigarette smoking
3. Hypofibrinogenaemia
4. Atrial fibrillation

Select the correct answer using the code given below :

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

33. Which of the following are correct in respect of Myasthenia gravis ?

1. Symptoms worsen towards the end of the day
2. There may be difficulty in chewing and swallowing
3. Acetylcholine receptors in the pre-junctional membrane are involved
4. Penicillamine may precipitate similar illness

Select the correct answer using the code given below :

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

34. Which of the following are the tests for functional assessment of encephalopathy ?

1. Flapping tremors
2. Number connection test
3. Constructional apraxia

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

35. Which one of the following is correct regarding blood components in clinical practice ?

- (a) ABO blood group antigens are polypeptide chains on the surface of RBCs
- (b) Platelets can be stored for upto 35 days
- (c) Hemolytic disease of newborn occurs when mother's IgA anti RBC antibodies cross the placenta and lyse fetal RBCs
- (d) Transfusion associated GVHD can be prevented by prior irradiation of transfused blood

36. Which one of the following is an oral direct Thrombin inhibitor ?

- (a) Apixaban
- (b) Rivaroxaban
- (c) Dabigatran
- (d) Argatroban

37. Which of the following are correct with regard to metformin ?

- 1. The maximum tolerated dose is 2000 mg/day
- 2. Lactic acidosis is the major adverse effect of metformin
- 3. It may lower the blood levels of Vitamin B12 level

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

38. Which of the following statements are correct regarding short stature ?

- 1. Linear bone growth rates are pituitary dependent
- 2. Normal bone age in a child with short stature suggests hormonal disorder
- 3. Final height in boys can be estimated by adding 6.5 cm to mid-parental height
- 4. Replacement therapy with recombinant GH restores growth velocity in GH-deficient children

Select the correct answer using the code given below :

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

39. Which one of the following drugs used to treat Diabetes mellitus, is least likely to cause hypoglycemia ?

- (a) Insulin
- (b) Glimpiride
- (c) Sitagliptin
- (d) Repaglinide

40. Which of the following constitute differential diagnosis of hypocalcemia ?

- 1. Hypomagnesaemia
- 2. Chronic alcoholism
- 3. Pseudohypoparathyroidism
- 4. Paget's disease

Select the correct answer using the code given below :

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

41. Which of the following are useful for the treatment of Hirsutism ?

1. Amiloride
2. Oestrogen
3. Finasteride
4. Spironolactone

Select the correct answer using the code given below :

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

42. Which of the following is a long acting insulin ?

- (a) Aspart
- (b) Glargine
- (c) Lispro
- (d) Regular

43. A 15 year girl presents to the hospital with severe abdominal pain, vomiting and cold extremities. She has tachycardia and hypotension. Lab investigations show blood glucose 400 mg/dL, blood pH 6.9, urine ketones +++ and serum creatinine of 1.4 mg/dL. She is promptly administered IV fluids and insulin. After 4 hours, she complains of inability to lift her limbs. What is the next step to be considered in her management ?

- (a) Intravenous normal saline
- (b) Intravenous sodium bicarbonate
- (c) Urine sample for ketones
- (d) Potassium repletion

44. Composition of oral rehydration solution (WHO) is

- (a) Na-90 m mol/L, K-20 m mol/L, Cl-80 m mol/L, Energy-54 kca/L
- (b) Na-80 m mol/L, K-20 m mol/L, Cl-70 m mol/L, Energy-54 kca/L
- (c) Na-90 m mol/L, K-40 m mol/L, Cl-80 m mol/L, Energy-27 kca/L
- (d) Na-80 m mol/L, K-20 m mol/L, Cl-70 m mol/L, Energy-54 kca/L

45. Which of the following are correct regarding tuberculous meningitis ?

1. Acid-Fast Bacilli are infrequently seen on direct smear of CSF
2. CSF culture for MTB is the gold standard for diagnosis
3. Xpert MTB/RIF assay is a preferred initial diagnostic option

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

46. Which one of the following is a subcutaneous preparation useful for treatment of osteoporosis ?

- (a) Denosumab
- (b) Alendronate
- (c) Zoledronic acid
- (d) Raloxifene

47. Which of the following are correct with regard to osteoporosis ?

1. It does not cause symptoms until a fracture occurs
2. Vertebral fracture can present with loss of height, in absence of pain
3. Smoking is protective
4. It sometimes presents incidentally as radiological osteopenia

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

48. Which of the following are correct with regard to Ankylosing spondylitis ?

1. Bamboo spine may be seen
2. Early morning back pain is rare
3. Uveitis is most common extra articular feature
4. It is more common in males

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

49. Carpel Tunnel Syndrome is associated with which of the following features ?

1. Pain and tingling in hands at night
2. Weakness of thumb abduction
3. Loss of sensation over lateral half of the palm
4. Atrophy of hypothenar eminence

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

50. Which of the following can be used to monitor disease activity in rheumatoid arthritis ?

1. Pain (visual analogue scale)
2. X-Ray of hands and wrists
3. DAS 28 score
4. ESR

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

51. Which one of the following HIV-associated infections is least likely with CD4 count > 100 cells/mm³ ?

- (a) Cerebral toxoplasmosis
- (b) Tuberculosis
- (c) Herpes zoster
- (d) Pneumocystis jirovecii pneumonia

52. Tests for graphesthesia and stereognosis are used clinically to assess

- (a) Cortical sensation
- (b) Posterior column
- (c) Cerebellar function
- (d) Lateral spinothalamic tract

53. A blast victim is brought to the emergency. Victim is unconscious. BP is 80/50 mm Hg. Pulse is 110 per minute and thready and SpO₂ is 70%. Victim has rapid shallow breathing and signs of external blood loss are present. JVP is raised and heart sounds are absent on auscultation. Which one of the following is the next single most immediate step in the management, after securing airway, breathing and circulation ?

- (a) Chest X-ray PA and lateral view
- (b) Urgent needle thoracostomy
- (c) Urgent pericardiocentesis
- (d) Blood for cross match followed by blood transfusion

54. A 21 year young female was brought to Emergency Department with history of unknown substance ingestion. She was having vomiting, profuse diarrhoea, bronchorrhoea and excessive sweating. On examination miosis and muscular fasciculations were present. What is the most likely diagnosis ?

- (a) Corrosive substance poisoning
- (b) Aluminium phosphide poisoning
- (c) Zinc phosphide poisoning
- (d) Organophosphorus poisoning

55. A young female of 22 year old presented to the medical emergency with complaints of nausea, vomiting, abdominal pain, diarrhoea, and convulsions along with methaemoglobinemia. What is the likely diagnosis ?

- (a) Aluminium phosphide poisoning
- (b) Zinc phosphide poisoning
- (c) Copper sulphate poisoning
- (d) Lead poisoning

56. Which of the following are the components of the SOFA (Sequential Organ Failure Assessment) ?

1. Serum bilirubin
2. Platelet count
3. Leucocyte count
4. Serum Creatinine

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

57. Purtscher's retinopathy may be associated with

- (a) Acute fulminant hepatic failure
- (b) Acute pancreatitis
- (c) Acute peritonitis
- (d) Acute cholecystitis

58. Which of the following may constitute the characteristic triad of Zollinger-Ellison syndrome ?

- 1. Severe peptic ulceration
- 2. Gastric acid hyposecretion
- 3. Gastrinoma
- 4. Pancreatic Neuro-endocrine tumour

Select the correct answer using the code given below :

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

59. In a healthy young adult, what proportion of sleep time is comprised Rapid Eye Movement (REM) sleep ?

- (a) 5-10%
- (b) 20-25%
- (c) 45-50%
- (d) 70-75%

60. Which of the following drugs can cause Idiopathic Intracranial Hypertension ?

- 1. Tetracycline
- 2. Retinoid
- 3. Vitamin A
- 4. Sulfonamides

Select the correct answer using the code given below :

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

61. As per the Gell and Coombs classification, Farmer's lung is which type of hypersensitivity disease ?

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

62. Hormonal regulation of salt and water balance in a nephron occurs at

- (a) Proximal Convoluted Tubule (PCT)
- (b) Loop of Henle
- (c) Distal Convoluted Tubule (DCT)
- (d) Collecting Ducts

63. Which one of the following parameters suggests pre-renal azotemia ?

- (a) Renal tubular epithelial cell casts
- (b) Gromular casts in urine sediment
- (c) Hyaline casts in urine sediment
- (d) Fractional excretion of sodium > 1%

64. Most common cause of Chronic Kidney Disease (CKD) is

- (a) Hypertension associated CKD
- (b) Autosomal Dominant Polycystic Kidney Disease (ADPKD)
- (c) Diabetic nephropathy
- (d) Glomerulonephritis

65. Which of the following statements regarding contrast induced nephrotoxicity are correct ?

1. Diabetes Mellitus is a risk factor.
2. N-acetylcysteine can fully reverse the renal injury.
3. Hydration is necessary.
4. Omit Metformin if nephrotoxicity occurs.

Select the correct answer using the code given below :

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

66. Which component of auto-regulation of glomerular filtration acts on the efferent arteriole ?

- (a) Autonomous myogenic reflex
- (b) Tubuloglomerular feedback
- (c) Angiotensin II mediated vasoconstriction
- (d) None of the above

67. Which of the following are consequences of nephrotic syndrome ?

1. Increased lipoprotein synthesis
2. Low serum globulin levels
3. Increased serum aldosterone levels
4. Increased serum Antithrombin III levels

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 and 3 only

68. Sickle cell syndromes are caused by a mutation in the β -globin gene. Which one of the following correctly describes the change ?

- (a) Sixth amino acid-glutamic acid is replaced by valine.
- (b) Twenty-sixth amino acid-glutamic acid is replaced by lysine.
- (c) Sixth amino acid-glutamic acid is replaced by lysine
- (d) Ninety eighth amino acid-valine is replaced by methionine.

69. In which of the following a high reticulocyte production index is seen ?

1. Sickle cell disease
2. Vitamin B-12 deficiency
3. Glucose-6-phosphate dehydrogenase deficiency
4. Blood loss

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

70. Which one of the following combinations of drugs can be used for treatment of relapsed myeloma ?

- (a) Infliximab, Methotrexate, Dexamethasone
- (b) Lenalidomide, Bortezomib, Dexamethasone
- (c) Rituximab, Vincristine, Cytarabine
- (d) Methotrexate, Doxorubicin, Prednisone

71. Which of the following can be used in the initial management of heparin induced thrombocytopenia ?

1. Fondaparinux
2. Rivaroxaban
3. Lepirudin
4. Warfarin

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

72. Red cell protoporphyrin levels will be raised in which of the following conditions ?

1. Absolute iron deficiency
2. Relative iron deficiency
3. Lead poisoning

Select the correct answer using the code given below :

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

73. Negative Iron Balance is the first stage in the progression to Iron Deficiency Anaemia. Which of the following laboratory investigations will be found deranged in this stage, thereby pointing to early iron-store depletion ?

1. Bone Marrow Iron Stores
2. Percent transferrin saturation
3. Serum ferritin
4. Total Iron Binding Capacity

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

74. Which of the following drugs carry a definite risk of causing clinical haemolysis in persons suffering from Glucose-6 phosphate dehydrogenase deficiency ?

1. Primaquine
2. Dapsone
3. Cotrimoxazole
4. Nitrofurantoin

Select the correct answer using the code given below :

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

75. A 40 year old male presented with complaints of generalised weakness, weight loss, abdominal discomfort and decreased appetite. On examination Splenomegaly (massive) was present. On investigation it was found that haemoglobin was 7.0 g/dL, platelet count- 8 lakh per cubic mm, WBC-90000 per cubic mm. Most probably this is the case of

- (a) Chronic lymphocytic leukemia
- (b) Chronic myeloid leukemia
- (c) Acute lymphoblastic leukemia
- (d) Acute myeloid leukemia

76. Which of the following are risk factors for type 2 diabetes mellitus ?

1. Family history of diabetes
2. Underweight
3. Physical inactivity
4. Polycystic ovary syndrome

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

77. Which of the following statements with regard to gestational diabetes mellitus (GDM) are correct ?

1. Most women revert to normal glucose tolerance post partum
2. Children born to a GDM mother have no increased risk of diabetes mellitus later in life
3. Glucose intolerance develops during second and third trimesters
4. Insulin resistance is related to metabolic changes of pregnancy

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

78. A Thyroid Function Test report shows the following results :

TSH-Undetectable
T3-Raised
T4-Raised

Which one of the following will be the most likely interpretation on the basis of the above report ?

- (a) Hypothyroidism secondary to pituitary disease
- (b) Transient thyroiditis in evolution
- (c) Primary thyrotoxicosis
- (d) Overtreatment of hypothyroidism with Liothyronine

79. Which of the following biochemical abnormality is seen in severe hypertriglyceridemia ?

- (a) Pseudohyponatremia
- (b) Metabolic alkalosis
- (c) Hyperuricemia
- (d) Hyperkalemia

80. Which of the following statements are correct about treatment with vit D supplement ?

1. Serum calcium levels improve earlier than serum PTH levels.
2. Patients should be closely observed with serial vitamin D levels in blood as vitamin D toxicity occurs frequently
3. Vitamin D supplementation should always be in conjunction with calcium supplementation.
4. Nephrolithiasis is a known complication

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

81. The first line investigation for diagnostic evaluation of patients with hypercalcemia is

- (a) 24 hour urinary calcium excretion
- (b) Serum phosphate levels
- (c) Serum iPTH levels
- (d) Serum vitamin D levels

82. Consider the following conditions :

- 1. Kaposi's sarcoma
- 2. Lymphoma
- 3. Tuberculosis
- 4. Persistent generalised lymphadenopathy

Which of the above are causes of lymphadenopathy in a HIV positive patient ?

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

83. A patient receiving chemotherapy develops neutropenia. He presents with fever, cough, expectoration, chest pain and hemoptysis. His CT scan of chest reveals nodular infiltrates with halo sign and crescent sign. The most useful drug for treating him is

- (a) Colistin
- (b) Granulocyte Macrophage Colony
- (c) Voriconazole
- (d) Piperacillin-tazobactam

84. A patient undergoes splenectomy after an accident. He will require oral prophylaxis against which of the following organisms ?

- (a) *Staphylococcus aureus*
- (b) *Escherichia coli*
- (c) *Streptococcus pneumoniae*
- (d) *Pneumocystis carinii*

85. A 30 year old male recently diagnosed with HIV presented with odynophagia. He was started on proton-pump inhibitor and an upper GI endoscopy was done. There were serpiginous ulcers in a normal surrounding mucosa in distal esophagus. The most likely diagnosis is

- (a) Herpes simplex esophagitis
- (b) Gastro-esophageal reflux disease
- (c) Cytomegalovirus esophagitis
- (d) Candida esophagitis

86. Which one of the following statements regarding post gonococcal urethritis (PGU) is correct ?

- (a) Neisseria gonorrhoea is the most frequent cause of PGU in men
- (b) PGU refers to non-gonococcal urethritis in men treated earlier with single dose of penicillin
- (c) Combination therapy with azithromycin leads to resistance and should be avoided.
- (d) PGU usually occurs within one week after treatment of non-gonococcal urethritis.

87. Which one of the following treatments is considered as Gold standard for brucellosis in adults ?

- (a) Streptomycin and Doxycycline
- (b) Azithromycin and Rifampin
- (c) Trimethoprim and Sulfamethoxazole
- (d) Amikacin and Ciprofloxacin

88. Which one of the following has the highest risk of human immunodeficiency virus (HIV) transmission after single exposure to an HIV-infected source ?

- (a) Vaginal delivery
- (b) Vaginal intercourse
- (c) Blood transfusion
- (d) Percutaneous needle stick injury

89. Consider the following statements with regard to vitamin C :

1. It is heat stable.
2. Normal platelets are poor in ascorbate.
3. Perifollicular hyperkeratosis is a clinical sign of scurvy.
4. Infants fed exclusively on boiled milk are vitamin C deficient.

Which of the above statements are correct ?

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

90. Which of the following statements are correct in respect of vitamin D ?

1. Skin exposure to sunlight is the main source
2. Deficiency of vitamin D causes distal muscle weakness
3. Vitamin D synthesis decreases in winter, as one moves away from equator
4. Body store accumulated during summer is consumed during winter

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

91. Which of the following are used in the treatment of Acne vulgaris ?

1. Topical benzoyl peroxide
2. Topical antibiotics like clindamycin
3. Oral isotretinoin
4. Oral ivermectin

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

92. Which one of the following is a cause of scarring alopecia ?

- (a) Androgenic alopecia
- (b) Alopecia Areata
- (c) Syphilis
- (d) Radiotherapy

93. Which of the following are used as mood stabilizers for treatment of bipolar disorder ?

1. Valproic acid
2. Lamotrigine
3. Carbamazepine
4. Propranolol

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

94. An elderly alcoholic man who mainly eats a diet of maize and maize products presents with complaints of chronic diarrhoea, severe sunburn-like lesions tension on exposed parts and acute delirium. He is admitted. What is the likely diagnosis and its treatment ?

- (a) Celiac disease, Gluten free diet
- (b) Vitamin B 12 deficiency, Parenteral B 12 therapy

(c) Pellagra, Niacin therapy

(d) Whipple's disease, Doxycycline + Trimethoprim

95. Which one of the following is an indication for self-injectable adrenaline (epinephrine) ?

- (a) Anaphylaxis to allergens that are difficult to avoid
- (b) Cardiogenic shock
- (c) Pheochromocytoma
- (d) Complete heart block

96. Which of the following statements with regard to arterio-venous fistula in dialysis patient are correct ?

1. Distension and thickening of vessel wall occurs
2. Formed upto a year before dialysis is contemplated
3. Leg veins are usually preferred
4. Synthetic graft may be used if fistula formation is not possible

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

97. An infant was born at 30 weeks of gestation and weighs 1.2 kg at birth. Which of the following is the recommended initial feeding method ?
- (a) Intravenous fluids only
 (b) Feeding by spoon and katori
 (c) Breastfeeding
 (d) Orogastric feeding
98. A newborn delivered at 32 weeks gestation is started on spoon feeds after birth. On feeding with spoon, the baby demonstrates some spilling and coughing. What is the next step in management ?
- (a) Orogastric or nasogastric tube feeding
 (b) Intravenous fluid therapy
 (c) Gastrostomy tube feeding
 (d) Breastfeeding
99. A child speaks bisyllables like Ma-Ma and Ba-Ba. He is able to sit without support, and looks at the source of sound diagonally. His likely age is
- (a) 4 months
 (b) 6 months
 (c) 8 months
 (d) 10 months
100. After sustaining a head injury, an 18 month old child displays eye opening only to pain, moans on painful stimuli and withdraws to painful stimuli. What is the modified Glasgow Coma Scale Score in this child ?
- (a) 6
 (b) 8
 (c) 10
 (d) 12
101. Which of the following are reversible causes of electromechanical dissociation seen in pulseless electrical activity ?
1. Pericardial tamponade
 2. Pulmonary thrombo-embolism
 3. Hyperthermia
 4. Hypokalemia
- 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
102. A 3-day old newborn presents with jaundice since birth. Examination reveals pallor and hepatosplenomegaly. The newborn also has a cephalhematoma. Which one of the following is the most important indicator to the diagnosis of pathologic jaundice ?
- (a) Pallor
 (b) Hepatosplenomegaly
 (c) Clinical jaundice since birth
 (d) Cephalhematoma

103. What is the diagnosis of Autism Spectrum Disorder primarily based upon ?

- (a) Clinical criteria only
- (b) Clinical criteria and genetic studies only
- (c) Clinical criteria and MRI brain only
- (d) Clinical criteria, genetic studies and MRI brain

104. According to the National AIDS Control Program, which one of the following drugs is given to newborns born to HIV-positive mothers to prevent mother to child transmission of HIV infection ?

- (a) Nevirapine
- (b) Stavudine
- (c) Indinavir
- (d) Ritonavir

105. Which one of the following statements is correct in context of human breast milk ?

- (a) The concentration of lactose is 5g/dL
- (b) The protein content is higher than that in animal milk
- (c) Human milk does not contain taurine and cysteine like animal milk and formula milk
- (d) Human milk contains omega 2 and omega 6 (very long chain) fatty acids

106. Which of the following are age appropriate language milestones in a normally developing 2 year old child ?

- 1. Vocabulary of 50-100 words
- 2. Uses pronouns
- 3. Occasional repeating of words
- 4. Stating his name when asked

Select the correct answer using the code given below :

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

107. Which of the following tools are used for developmental screening ?

- 1. Denver-II
- 2. Ages and Stages Questionnaire
- 3. Parents Evaluation of Developmental Status
- 4. Bayley Scale for Infant and Toddler Development

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

108. According to King's College criteria, which of the following are the indicators for referring to liver transplantation following acetaminophen toxicity ?

1. Transaminase levels > 4000 IU/L
2. Acidemia (Serum pH < 7.3) after adequate fluid resuscitation
3. Coagulopathy (INR > 6)
4. Renal dysfunction (creatinine > 3.4 mg/dL)

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

109. Which one of the following statements is correct about intra-dermal fractional Inactivated Polio Vaccine (fIPV) with respect to intramuscular (I/M)IPV ?

- (a) fIPV is one-tenth of the I/M dose of IPV
- (b) fIPV is one-fifth of the I/M dose of IPV
- (c) fIPV is half of the I/M dose of IPV
- (d) fIPV is three-fourth of the I/M dose of IPV

110. Which one of the following statements is correct regarding the Government of India program 'Home-based care of the young child' ?

- (a) It was started in 2014
- (b) The grassroots health worker is the Anganwadi worker
- (c) The grassroots health worker makes 6 home visits
- (d) The infant is monitored from 3 months to 15 months of age

111. In a child with high anion gap metabolic acidosis, poisoning with which of the following may be suspected ?

- (a) Iron
- (b) Digoxin
- (c) Rifampicin
- (d) Beta blockers

112. Which one of the following is a "Danger Sign" for a newborn baby ?

- (a) Temperature between 36.0°C and 36.5°C
- (b) Respiratory rate more than 60/min
- (c) Heart rate of 120/min
- (d) Weight loss of 8% within first week of life

113. The codes given below represent specific type of permanent teeth :

1. Central and lateral incisors
2. Canines
3. Premolars
4. Molars

The eruption of which of the following combinations will be close to menarche in girls ?

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

114. Urinary alkalisation is used for enhancing excretion of which of the following poisoning ?

- (a) Phenobarbitone
- (b) Alprazolam
- (c) Phenytoin
- (d) Lithium

115. A 4 year old child is brought with a history of ingestion of 1g of paracetamol two hours back. What should be the initial management ?

- (a) Induced vomiting
- (b) Gastric lavage
- (c) Oral N-acetyl cysteine
- (d) Alkaline diuresis

116. Antidote to reverse the muscarinic effects of organophosphate toxicity is

- (a) Pralidoxime aldoxime methiodide (PAM)
- (b) Atropine
- (c) Adrenaline
- (d) N-acetylcysteine

117. A 7 year old child is brought to the emergency with seizures and drowsiness. The child had been receiving some drugs for fever for the past two days. Child is found to be cyanosed with an oxygen saturation of 40% and unresponsive to oxygen therapy. Blood gas analysis reveals a normal PaO₂. Which drug intake may have caused the above condition ?

- (a) Chloroquine
- (b) Amoxicillin-Clavulanic acid
- (c) Paracetamol
- (d) Mefenamic acid

118. Autism Spectrum Disorder is characterised by which of the following ?

1. Onset before 3 years of age
2. Impaired verbal and gestural communication
3. Stereotypic and restrictive behavioural patterns
4. Tangential speech

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

119. Which vaccines are stored in the top rack of the main refrigerator compartment at temperature of 4–10°C ?

- (a) DPT, Hepatitis B, Measles, MMR vaccines
- (b) DPT, TT, Hepatitis A vaccine
- (c) BCG, DPT and Typhoid
- (d) BCG, Measles and MMR vaccines

120. Identification of '4Ds' is a key element of which National Health Programme ?

- (a) IMNCI (Integrated Management of Childhood and Neonatal illness)
- (b) ICDS (Integrated Child Development Scheme)
- (c) RBSK (Rashtriya Bal Swasthya Karyakram)
- (d) JSSK (Janani Shishu Suraksha Karyakram)

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