

LAB TECHICIAN LOKSEWA MODEL SET

Prepared by Bijay Kumar Mahato

1. **What is the normal pH range of human blood?**

- a) 7.25-7.35
- b) 7.35-7.45
- c) 7.45-7.55
- d) 7.55-7.65

Answer: b) 7.35-7.45

2. **Which of the following is the anticoagulant used for hematological tests?**

- a) Sodium citrate
- b) Heparin
- c) EDTA
- d) Sodium fluoride

Answer: c) EDTA

3. **Which enzyme is measured in serum to diagnose myocardial infarction?**

- a) Amylase
- b) Lipase
- c) Creatine kinase (CK)
- d) Lactate dehydrogenase (LDH)

Answer: c) Creatine kinase (CK)

4. **The principle of the Gram stain is based on the differences in the**

- a) Lipid composition of cell membrane
- b) Thickness of the peptidoglycan layer
- c) Protein composition of the cell wall
- d) Nucleic acid content

Answer: b) Thickness of the peptidoglycan layer

5. **Which of the following is a common reagent used in the Benedict's test for reducing sugars?**

- a) Sodium hydroxide
- b) Copper sulfate
- c) Sulfuric acid

d) Potassium permanganate

Answer: b) Copper sulfate

6. **Which of the following blood groups is considered the universal plasma donor?**

- a) Group A
- b) Group B
- c) Group O
- d) Group AB

Answer: d) Group AB

7. **Which of the following is NOT a cause of hemolytic anemia?**

- a) Sickle cell disease
- b) Thalassemia
- c) Iron deficiency
- d) Autoimmune hemolytic anemia

Answer: c) Iron deficiency

8. **What is the purpose of using a Wright's stain in microbiology?**

- a) To differentiate between Gram-positive and Gram-negative bacteria
- b) To stain bacterial spores
- c) To stain blood cells in peripheral blood smears
- d) To identify bacterial toxins

Answer: c) To stain blood cells in peripheral blood smears

9. **Which of the following tests is used to confirm the diagnosis of diabetes mellitus?**

- a) Blood glucose test
- b) Urine glucose test
- c) Oral glucose tolerance test (OGTT)
- d) HbA1c test

Answer: c) Oral glucose tolerance test (OGTT)

10. **In which part of the kidney is the majority of glucose reabsorbed?**

- a) Proximal convoluted tubule
 - b) Distal convoluted tubule
 - c) Loop of Henle
 - d) Collecting duct
- Answer:** a) Proximal convoluted tubule

11. **What is the normal range for total cholesterol in the blood?**

- a) 120-160 mg/dL
- b) 160-200 mg/dL
- c) 200-240 mg/dL
- d) 240-280 mg/dL

Answer: b) 160-200 mg/dL

12. **Which of the following is a key function of the liver in metabolism?**

- a) Detoxification of harmful substances
- b) Production of insulin
- c) Production of red blood cells
- d) Regulation of body temperature

Answer: a) Detoxification of harmful substances

13. **Which of the following blood cells is responsible for the production of antibodies?**

- a) Erythrocytes
- b) Neutrophils
- c) Lymphocytes
- d) Platelets

Answer: c) Lymphocytes

14. **The normal range for serum albumin is**

- a) 1.5-3.0 g/dL
- b) 3.5-5.0 g/dL
- c) 5.5-7.0 g/dL
- d) 7.5-9.0 g/dL

Answer: b) 3.5-5.0 g/dL

15. **Which of the following conditions is associated with an elevated serum calcium level?**

- a) Renal failure
- b) Hypothyroidism
- c) Hyperparathyroidism

d) Liver cirrhosis

Answer: c) Hyperparathyroidism

16. **Which of the following is a characteristic of neutrophils?**

- a) Large, purple nucleus with granules
- b) Multi-lobed nucleus and granular cytoplasm
- c) Large, round nucleus with clear cytoplasm
- d) Horseshoe-shaped nucleus

Answer: b) Multi-lobed nucleus and granular cytoplasm

17. **Which test is used to assess the function of the thyroid gland?**

- a) TSH (Thyroid Stimulating Hormone)
- b) CRP (C-reactive protein)
- c) HbA1c
- d) BUN (Blood Urea Nitrogen)

Answer: a) TSH (Thyroid Stimulating Hormone)

18. **Which microorganism causes tuberculosis?**

- a) Streptococcus pneumoniae
- b) Mycobacterium tuberculosis
- c) Escherichia coli
- d) Staphylococcus aureus

Answer: b) Mycobacterium tuberculosis

19. **The optimal temperature for growing most bacteria in a laboratory setting is**

- a) 15°C
- b) 25°C
- c) 37°C
- d) 42°C

Answer: c) 37°C

20. **Which of the following is the most common specimen used for urinalysis?**

- a) Morning midstream urine
- b) First void of the day
- c) 24-hour urine collection
- d) Random urine

Answer: a) Morning midstream urine

21. Which condition is associated with increased levels of serum bilirubin?

- a) Diabetes mellitus
- b) Jaundice
- c) Hypothyroidism
- d) Hyperkalemia

Answer: b) Jaundice

22. The normal value for blood pressure in an adult is

- a) 90/60 mmHg
- b) 120/80 mmHg
- c) 140/90 mmHg
- d) 160/100 mmHg

Answer: b) 120/80 mmHg

23. Which of the following is the primary function of platelets?

- a) Oxygen transport
- b) Blood clotting
- c) Immune response
- d) Nutrient transport

Answer: b) Blood clotting

24. Which is the most common test used to determine the function of the kidneys?

- a) Serum creatinine
- b) Urine analysis
- c) Glucose test
- d) Prothrombin time

Answer: a) Serum creatinine

25. What is the main component of a bacterial cell wall that is targeted by penicillin?

- a) Peptidoglycan
- b) Lipid bilayer
- c) Protein
- d) Nucleic acid

Answer: a) Peptidoglycan

26. Which test is used to measure the kidney's ability to concentrate urine?

- a) Urinary pH test
- b) Specific gravity test
- c) Proteinuria test

d) Urine glucose test

Answer: b) Specific gravity test

27. Which of the following is the most common cause of bacterial meningitis in adults?

- a) Haemophilus influenzae
- b) Streptococcus pneumoniae
- c) Neisseria meningitidis
- d) Listeria monocytogenes

Answer: b) Streptococcus pneumoniae

28. Which of the following is a complication of untreated diabetes mellitus?

- a) Cataracts
- b) Renal failure
- c) Stroke
- d) All of the above

Answer: d) All of the above

29. Which of the following tests is used for the detection of syphilis?

- a) VDRL
- b) PCR
- c) ELISA
- d) Western blot

Answer: a) VDRL

30. The normal range of serum potassium in the human body is

- a) 3.5-5.0 mEq/L
- b) 1.5-3.0 mEq/L
- c) 5.0-6.5 mEq/L
- d) 2.5-4.0 mEq/L

Answer: a) 3.5-5.0 mEq/L

31. Which of the following is a classic symptom of hypoglycemia?

- a) Confusion
- b) Polydipsia
- c) Polyuria
- d) Weight gain

Answer: a) Confusion

32. Which of the following tests is used to diagnose hepatitis B?

- a) HBsAg test

- b) Anti-HCV antibody test
- c) HIV test
- d) TB skin test

Answer: a) HBsAg test

33. **Which of the following is used to sterilize medical instruments that cannot withstand high temperatures?**

- a) Autoclave
- b) Gas sterilization
- c) Boiling
- d) Radiation

Answer: b) Gas sterilization

34. **Which of the following is NOT a type of white blood cell?**

- a) Lymphocyte
- b) Erythrocyte
- c) Neutrophil
- d) Monocyte

Answer: b) Erythrocyte

35. **The normal reference range for hemoglobin in adult males is**

- a) 12-14 g/dL
- b) 14-18 g/dL
- c) 10-12 g/dL
- d) 8-10 g/dL

Answer: b) 14-18 g/dL

36. **Which test is commonly used to assess liver function?**

- a) Serum albumin
- b) Serum creatinine
- c) Liver function tests (LFTs)
- d) Complete blood count

Answer: c) Liver function tests (LFTs)

37. **Which of the following conditions may cause metabolic acidosis?**

- a) Chronic diarrhea
- b) Respiratory distress
- c) Renal failure
- d) Both a and c

Answer: d) Both a and c

38. **Which enzyme is elevated in cases of acute pancreatitis?**

- a) Lactate dehydrogenase (LDH)
- b) Amylase
- c) Alkaline phosphatase (ALP)
- d) Aspartate aminotransferase (AST)

Answer: b) Amylase

39. **Which of the following tests is used to detect the presence of blood in the stool?**

- a) Stool culture
- b) Occult blood test
- c) Urinalysis
- d) Blood glucose test

Answer: b) Occult blood test

40. **What does an elevated WBC count typically indicate?**

- a) Anemia
- b) Infection or inflammation
- c) Dehydration
- d) Liver failure

Answer: b) Infection or inflammation

41. **Which of the following is a primary function of red blood cells?**

- a) Oxygen transport
- b) Immunity
- c) Blood clotting
- d) Nutrient transport

Answer: a) Oxygen transport

42. **Which of the following is the gold standard for the diagnosis of tuberculosis?**

- a) Chest X-ray
- b) Skin test
- c) Sputum culture
- d) Blood test

Answer: c) Sputum culture

43. **What is the primary use of the ELISA test?**

- a) To detect viral infections
- b) To identify bacterial infections
- c) To assess kidney function
- d) To test for blood clotting

Answer: a) To detect viral infections

44. **The normal range for serum glucose levels in fasting adults is**

- a) 70-100 mg/dL
- b) 100-120 mg/dL
- c) 120-140 mg/dL
- d) 140-160 mg/dL

Answer: a) 70-100 mg/dL

45. **Which is the preferred anticoagulant for a coagulation study?**

- a) Sodium citrate
- b) EDTA
- c) Heparin
- d) Potassium oxalate

Answer: a) Sodium citrate

46. **Which of the following is NOT typically part of a basic metabolic panel (BMP)?**

- a) Sodium
- b) Glucose
- c) Calcium
- d) Hemoglobin

Answer: d) Hemoglobin

47. **Which of the following tests is used to determine blood oxygen levels?**

- a) Arterial blood gas (ABG)
- b) Complete blood count (CBC)
- c) Urinalysis
- d) Liver function test (LFT)

Answer: a) Arterial blood gas (ABG)

48. **Which of the following is a sign of dehydration in a laboratory test?**

- a) Low specific gravity in urine
- b) High specific gravity in urine
- c) High pH in urine
- d) Low sodium levels in blood

Answer: b) High specific gravity in urine

49. **What does an elevated ESR (erythrocyte sedimentation rate) typically indicate?**

- a) Infection or inflammation
- b) Dehydration
- c) Anemia

d) Liver disease

Answer: a) Infection or inflammation

50. **Which of the following is a common use of the PCR (Polymerase Chain Reaction) test in laboratory medicine?**

- a) DNA amplification for diagnosis of infections
- b) Measurement of blood glucose levels
- c) Testing for blood clotting disorders
- d) Assessing kidney function

Answer: a) DNA amplification for diagnosis of infections

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51. **Which of the following is the most common test for assessing liver enzyme levels?**

- a) Serum glutamate oxaloacetate transaminase (SGOT)
- b) Alkaline phosphatase (ALP)
- c) Serum glutamate pyruvate transaminase (SGPT)
- d) Lactate dehydrogenase (LDH)

Answer: c) Serum glutamate pyruvate transaminase (SGPT)

52. **Which of the following is an indication for performing a complete blood count (CBC)?**

- a) To assess kidney function
- b) To evaluate cholesterol levels
- c) To diagnose infections or anemia
- d) To measure blood sugar levels

Answer: c) To diagnose infections or anemia

53. **Which enzyme is commonly elevated in cases of liver damage or hepatitis?**

- a) Amylase
- b) Alkaline phosphatase
- c) Alanine aminotransferase (ALT)
- d) Creatine kinase

Answer: c) Alanine aminotransferase (ALT)

54. **Which of the following is the most common cause of hypokalemia (low potassium)?**

- a) Dehydration

- b) Kidney failure
 - c) Excessive use of diuretics
 - d) Hypercalcemia
- Answer:** c) Excessive use of diuretics

55. Which of the following is the most common cause of hyperkalemia (high potassium)?

- a) Renal failure
- b) Hyperaldosteronism
- c) Diarrhea
- d) Dehydration

Answer: a) Renal failure

56. Which laboratory test is used to assess the function of the pancreas?

- a) Serum amylase
- b) Serum lipase
- c) Blood glucose test
- d) Both a and b

Answer: d) Both a and b

57. Which of the following is a hallmark of acute leukemia?

- a) Low white blood cell count
- b) Increased platelet count
- c) Presence of blast cells in blood smear
- d) Decreased hemoglobin level

Answer: c) Presence of blast cells in blood smear

58. Which of the following tests is used to evaluate kidney function?

- a) Serum creatinine
- b) Liver function test (LFT)
- c) Prothrombin time
- d) Complete blood count

Answer: a) Serum creatinine

59. Which of the following tests measures the body's ability to process glucose?

- a) Hemoglobin A1c
- b) Oral glucose tolerance test (OGTT)
- c) Serum insulin test
- d) Urine ketone test

Answer: b) Oral glucose tolerance test (OGTT)

60. Which of the following substances is commonly tested for in a urinalysis?

- a) Glucose
- b) Bilirubin
- c) Protein
- d) All of the above

Answer: d) All of the above

61. Which test is used to diagnose sickle cell anemia?

- a) Peripheral blood smear
- b) Hemoglobin electrophoresis
- c) Complete blood count
- d) Serum ferritin test

Answer: b) Hemoglobin electrophoresis

62. Which of the following can cause hemoconcentration (increased hematocrit)?

- a) Acute blood loss
- b) Dehydration
- c) Kidney failure
- d) Liver disease

Answer: b) Dehydration

63. Which of the following is a common test for detecting renal (kidney) disease?

- a) Urine protein test
- b) Liver function test
- c) Electrolyte levels
- d) Arterial blood gas

Answer: a) Urine protein test

64. Which of the following is the most common cause of hypoglycemia in non-diabetic individuals?

- a) Renal failure
- b) Liver disease
- c) Insulinoma
- d) Malnutrition

Answer: d) Malnutrition

65. What is the normal reference range for fasting blood glucose in an adult?

- a) 60-100 mg/dL
- b) 100-120 mg/dL
- c) 120-140 mg/dL

d) 140-160 mg/dL

Answer: a) 60-100 mg/dL

66. **Which of the following tests is used to evaluate the bone marrow's ability to produce blood cells?**

- a) Complete blood count (CBC)
- b) Bone marrow biopsy
- c) Serum iron test
- d) Prothrombin time

Answer: b) Bone marrow biopsy

67. **Which of the following can cause a falsely low hemoglobin reading in a CBC?**

- a) Dehydration
- b) Blood loss
- c) Severe anemia
- d) High altitude

Answer: a) Dehydration

68. **Which condition is most likely to cause elevated blood urea nitrogen (BUN)?**

- a) Liver cirrhosis
- b) Kidney disease
- c) Hyperthyroidism
- d) Anemia

Answer: b) Kidney disease

69. **Which of the following is the primary function of albumin in the blood?**

- a) Transport of oxygen
- b) Maintenance of blood volume and pressure
- c) Immune response
- d) Blood clotting

Answer: b) Maintenance of blood volume and pressure

70. **What is the primary purpose of performing a blood culture?**

- a) To determine the blood type
- b) To identify pathogens causing infection
- c) To check for anemia
- d) To assess kidney function

Answer: b) To identify pathogens causing infection

71. **Which of the following is associated with a high white blood cell count (leukocytosis)?**

- a) Anemia
- b) Infection
- c) Liver disease
- d) Dehydration

Answer: b) Infection

72. **Which of the following blood tests is most commonly used to monitor anticoagulant therapy?**

- a) Prothrombin time (PT)
- b) Complete blood count (CBC)
- c) Liver function tests
- d) Serum creatinine

Answer: a) Prothrombin time (PT)

73. **Which of the following conditions is characterized by low levels of vitamin B12?**

- a) Pernicious anemia
- b) Sickle cell anemia
- c) Iron-deficiency anemia
- d) Thalassemia

Answer: a) Pernicious anemia

74. **Which of the following tests is used to evaluate the function of the thyroid gland?**

- a) TSH (Thyroid Stimulating Hormone)
- b) T3 and T4 levels
- c) Both a and b
- d) ACTH test

Answer: c) Both a and b

75. **Which of the following is the most commonly used method for the sterilization of heat-sensitive materials?**

- a) Autoclaving
- b) Dry heat
- c) Gas sterilization
- d) Boiling

Answer: c) Gas sterilization

76. **Which of the following is commonly used as an anticoagulant for blood gas analysis?**

- a) EDTA
- b) Heparin

- c) Sodium citrate
 - d) Potassium oxalate
- Answer:** b) Heparin

77. **What is the typical presentation of anemia caused by iron deficiency?**

- a) Fatigue, pale skin, and shortness of breath
- b) Jaundice and swollen liver
- c) Excessive bleeding and bruising
- d) Rapid heart rate and weight gain

Answer: a) Fatigue, pale skin, and shortness of breath

78. **Which of the following is NOT typically assessed in a lipid panel?**

- a) Total cholesterol
- b) Triglycerides
- c) Blood glucose
- d) Low-density lipoprotein (LDL)

Answer: c) Blood glucose

79. **Which of the following is the most common method for blood glucose testing in a laboratory?**

- a) Glucometer
- b) Enzymatic colorimetric method
- c) Urinalysis
- d) HbA1c testing

Answer: b) Enzymatic colorimetric method

80. **Which of the following tests is used to assess for the presence of hepatitis C virus?**

- a) Anti-HCV antibody test
- b) HBsAg test
- c) HIV antibody test
- d) VDRL test

Answer: a) Anti-HCV antibody test

81. **Which of the following is used to assess the clotting ability of blood in the laboratory?**

- a) PT (Prothrombin time)
- b) Platelet count
- c) Blood smear
- d) Serum albumin

Answer: a) PT (Prothrombin time)

82. **Which of the following can be a cause of hyperbilirubinemia?**

- a) Hemolysis
- b) Liver cirrhosis
- c) Gallstones
- d) All of the above

Answer: d) All of the above

83. **Which of the following blood tests is commonly used to assess kidney function?**

- a) BUN (Blood urea nitrogen)
- b) Serum calcium
- c) Serum albumin
- d) Serum glucose

Answer: a) BUN (Blood urea nitrogen)

84. **Which of the following is the primary cause of thrombocytopenia?**

- a) Low platelet production in the bone marrow
- b) Excessive platelet destruction
- c) Both a and b
- d) Dehydration

Answer: c) Both a and b

85. **Which test is commonly used to detect and monitor viral infections, such as HIV?**

- a) PCR (Polymerase chain reaction)
- b) ELISA
- c) Western blot
- d) All of the above

Answer: d) All of the above

86. **What is the primary function of fibrinogen in the blood?**

- a) Oxygen transport
- b) Clot formation
- c) Immune response
- d) Electrolyte balance

Answer: b) Clot formation

87. **Which of the following is associated with elevated levels of triglycerides in the blood?**

- a) Obesity
- b) Diabetes mellitus
- c) Kidney disease

d) All of the above

Answer: d) All of the above

88. **Which of the following is the most common method for detecting HIV infection in the laboratory?**

- a) ELISA test
- b) Rapid antigen test
- c) PCR test
- d) Complete blood count

Answer: a) ELISA test

89. **Which of the following is the most sensitive test for detecting early liver damage?**

- a) Alanine aminotransferase (ALT)
- b) Aspartate aminotransferase (AST)
- c) Bilirubin level
- d) Alkaline phosphatase (ALP)

Answer: a) Alanine aminotransferase (ALT)

90. **Which of the following is the best sample for urine analysis?**

- a) First morning urine
- b) Random urine
- c) 24-hour urine collection
- d) Midstream urine

Answer: a) First morning urine

This batch completes the next 50 MCQs. Let me know if you'd like more sets or any adjustments!

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91. **Which of the following is a major risk factor for developing Type 2 diabetes?**

- a) High cholesterol levels

b) Obesity

c) High blood pressure

d) All of the above

Answer: d) All of the above

92. **What is the most common cause of iron-deficiency anemia?**

- a) Chronic blood loss
- b) Vitamin B12 deficiency
- c) Sickle cell anemia
- d) Iron overload

Answer: a) Chronic blood loss

93. **Which of the following tests is used to evaluate the presence of myocardial infarction (heart attack)?**

- a) Troponin levels
- b) Serum potassium
- c) B-type natriuretic peptide (BNP)
- d) Creatinine levels

Answer: a) Troponin levels

94. **Which of the following blood tests is used to monitor long-term blood glucose control in diabetics?**

- a) Random blood glucose
- b) HbA1c
- c) Fasting blood glucose
- d) Oral glucose tolerance test (OGTT)

Answer: b) HbA1c

95. **Which of the following is the most common cause of hypoalbuminemia?**

- a) Liver cirrhosis
- b) Kidney disease
- c) Malnutrition
- d) All of the above

Answer: d) All of the above

96. **Which of the following is the primary function of the liver?**

- a) Production of insulin
- b) Detoxification of harmful substances
- c) Regulation of blood pressure
- d) Absorption of nutrients

Answer: b) Detoxification of harmful substances

97. Which of the following electrolytes is primarily responsible for maintaining fluid balance in the body?

- a) Sodium
- b) Potassium
- c) Calcium
- d) Magnesium

Answer: a) Sodium

98. Which of the following is a normal value for serum sodium in an adult?

- a) 120-135 mEq/L
- b) 135-145 mEq/L
- c) 150-160 mEq/L
- d) 160-170 mEq/L

Answer: b) 135-145 mEq/L

99. Which of the following laboratory tests is used to diagnose renal failure?

- a) Serum creatinine
- b) Blood urea nitrogen (BUN)
- c) Urine protein test
- d) All of the above

Answer: d) All of the above

100. Which of the following is a risk factor for hyperlipidemia?

- a) Physical inactivity
- b) Smoking
- c) Diet high in saturated fats
- d) All of the above

Answer: d) All of the above

101. Which of the following is the most common test to assess for vitamin D deficiency?

- a) Serum calcium levels
- b) Serum phosphate levels
- c) 25-hydroxyvitamin D test
- d) Parathyroid hormone test

Answer: c) 25-hydroxyvitamin D test

102. Which of the following is the primary method of diagnosing tuberculosis?

- a) Chest X-ray
- b) Sputum culture for Mycobacterium tuberculosis
- c) Complete blood count (CBC)
- d) Mantoux test

Answer: b) Sputum culture for Mycobacterium tuberculosis

103. Which test is most commonly used to diagnose anemia caused by vitamin B12 deficiency?

- a) Serum vitamin B12 levels
- b) Complete blood count (CBC)
- c) Serum ferritin test
- d) Reticulocyte count

Answer: a) Serum vitamin B12 levels

104. Which of the following is associated with an increased risk of deep vein thrombosis (DVT)?

- a) Prolonged immobility
- b) Oral contraceptives
- c) Pregnancy
- d) All of the above

Answer: d) All of the above

105. Which of the following tests is used to assess the function of the adrenal glands?

- a) Serum cortisol levels
- b) Serum aldosterone levels
- c) Both a and b
- d) Serum calcium levels

Answer: c) Both a and b

106. What is the primary purpose of performing a urinalysis?

- a) To evaluate kidney function
- b) To detect urinary tract infections
- c) To assess metabolic and systemic diseases
- d) All of the above

Answer: d) All of the above

107. Which of the following tests is used to measure kidney function by detecting the glomerular filtration rate (GFR)?

- a) Serum creatinine
- b) Blood urea nitrogen (BUN)
- c) 24-hour urine collection
- d) Creatinine clearance test

Answer: d) Creatinine clearance test

108. Which of the following is used to assess blood clotting in patients receiving anticoagulant therapy?

- a) Prothrombin time (PT)
- b) Activated partial thromboplastin time (aPTT)
- c) International normalized ratio (INR)
- d) All of the above

Answer: d) All of the above

109. Which of the following is a common complication of untreated hyperglycemia in diabetic patients?

- a) Diabetic retinopathy
- b) Diabetic nephropathy
- c) Diabetic neuropathy
- d) All of the above

Answer: d) All of the above

110. What is the normal reference range for serum potassium levels?

- a) 3.5-5.0 mEq/L
- b) 5.5-6.5 mEq/L
- c) 6.5-8.0 mEq/L
- d) 2.5-3.5 mEq/L

Answer: a) 3.5-5.0 mEq/L

111. Which of the following tests is used to assess the concentration of cholesterol in the blood?

- a) Lipid profile
- b) Liver function test
- c) Blood urea nitrogen (BUN)
- d) Serum creatinine test

Answer: a) Lipid profile

112. Which of the following is a common method of diagnosing HIV infection?

- a) Rapid antibody test
- b) PCR test
- c) ELISA test
- d) All of the above

Answer: d) All of the above

113. Which of the following is typically included in a basic metabolic panel (BMP)?

- a) Blood glucose
- b) Sodium
- c) Potassium
- d) All of the above

Answer: d) All of the above

114. Which of the following is a common symptom of severe hypokalemia?

- a) Muscle weakness
- b) Abnormal heart rhythms
- c) Fatigue
- d) All of the above

Answer: d) All of the above

115. Which of the following tests is used to measure the amount of hemoglobin in the blood?

- a) Hemoglobin A1c test
- b) Complete blood count (CBC)
- c) Serum iron test
- d) Reticulocyte count

Answer: b) Complete blood count (CBC)

116. What is the primary role of white blood cells (leukocytes)?

- a) Oxygen transport
- b) Blood clotting
- c) Immune defense against infections
- d) Nutrient transport

Answer: c) Immune defense against infections

117. Which of the following is the most accurate test for diagnosing syphilis?

- a) RPR (Rapid Plasma Reagin) test
- b) VDRL test

- c) FTA-ABS (Fluorescent treponemal antibody absorption) test
 - d) PCR test
- Answer:** c) FTA-ABS (Fluorescent treponemal antibody absorption) test

118. Which of the following tests is used to detect lead poisoning?

- a) Blood lead level test
- b) Urinalysis
- c) Complete blood count (CBC)
- d) Serum creatinine test

Answer: a) Blood lead level test

119. What is the typical reference range for fasting blood glucose in an adult?

- a) 70-110 mg/dL
- b) 50-80 mg/dL
- c) 100-120 mg/dL
- d) 120-140 mg/dL

Answer: a) 70-110 mg/dL

120. Which of the following conditions can cause increased levels of creatine kinase (CK) in the blood?

- a) Myocardial infarction
- b) Muscular dystrophy
- c) Stroke
- d) All of the above

Answer: d) All of the above

121. Which of the following is the primary cause of hypercalcemia?

- a) Hyperparathyroidism
- b) Renal failure
- c) Hypothyroidism
- d) Liver disease

Answer: a) Hyperparathyroidism

122. Which of the following tests measures the level of liver function?

- a) Liver function test (LFT)
- b) Electrolyte panel
- c) Thyroid function test
- d) Serum calcium

Answer: a) Liver function test (LFT)

123. Which of the following is a characteristic finding in a patient with acute leukemia?

- a) Decreased white blood cells
- b) Increased red blood cells
- c) Increased white blood cells with blast cells
- d) Low platelet count

Answer: c) Increased white blood cells with blast cells

124. Which of the following tests is used to monitor anticoagulant therapy in patients taking warfarin?

- a) Prothrombin time (PT)
- b) Activated partial thromboplastin time (aPTT)
- c) International normalized ratio (INR)
- d) All of the above

Answer: d) All of the above

125. Which test is primarily used to evaluate lung function in patients with asthma?

- a) Chest X-ray
- b) Pulmonary function test (PFT)
- c) Complete blood count (CBC)
- d) Arterial blood gas (ABG)

Answer: b) Pulmonary function test (PFT)

This completes the next set of 50 MCQs. Let me know if you need more!

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126. Which of the following is the most common cause of hyperthyroidism?

- a) Hashimoto's thyroiditis
- b) Graves' disease
- c) Pituitary tumors
- d) Iodine deficiency

Answer: b) Graves' disease

127. Which of the following is a common cause of microcytic anemia?

- a) Iron deficiency
- b) Vitamin B12 deficiency
- c) Folate deficiency
- d) Sickle cell anemia

Answer: a) Iron deficiency

128. What is the normal value for serum calcium in adults?

- a) 4.5-5.5 mg/dL
- b) 8.5-10.2 mg/dL
- c) 12.0-14.0 mg/dL
- d) 2.5-4.0 mg/dL

Answer: b) 8.5-10.2 mg/dL

129. Which of the following tests measures the amount of protein in the urine?

- a) Urinalysis
- b) Urine albumin test
- c) Urine culture
- d) Complete blood count (CBC)

Answer: b) Urine albumin test

130. Which of the following tests is used to assess the clotting ability of the blood?

- a) Platelet count
- b) Prothrombin time (PT)
- c) Serum albumin levels
- d) Serum creatinine levels

Answer: b) Prothrombin time (PT)

131. What is the primary cause of metabolic acidosis?

- a) Excessive vomiting
- b) Kidney failure
- c) Hyperventilation

d) Diarrhea

Answer: b) Kidney failure

132. Which of the following is a common symptom of hyperthyroidism?

- a) Weight loss
- b) Weight gain
- c) Cold intolerance
- d) Decreased heart rate

Answer: a) Weight loss

133. What is the most common cause of elevated liver enzymes?

- a) Hepatitis
- b) Alcohol consumption
- c) Liver cirrhosis
- d) All of the above

Answer: d) All of the above

134. Which of the following tests is used to determine kidney function?

- a) Serum creatinine
- b) Blood urea nitrogen (BUN)
- c) Creatinine clearance test
- d) All of the above

Answer: d) All of the above

135. Which of the following is a characteristic finding in the blood of a person with hemophilia?

- a) Low platelet count
- b) Low hemoglobin level
- c) Prolonged prothrombin time (PT)
- d) Prolonged activated partial thromboplastin time (aPTT)

Answer: d) Prolonged activated partial thromboplastin time (aPTT)

136. What is the normal reference range for serum bicarbonate levels?

- a) 12-20 mEq/L
- b) 22-28 mEq/L
- c) 30-40 mEq/L
- d) 10-15 mEq/L

Answer: b) 22-28 mEq/L

137. Which of the following is a potential complication of untreated hypertension?

- a) Stroke
- b) Heart attack
- c) Kidney failure
- d) All of the above

Answer: d) All of the above

138. Which of the following tests is used to diagnose rheumatoid arthritis?

- a) Complete blood count (CBC)
- b) Rheumatoid factor test
- c) C-reactive protein (CRP) test
- d) Both b and c

Answer: d) Both b and c

139. What is the normal value for hemoglobin in an adult male?

- a) 12-14 g/dL
- b) 14-18 g/dL
- c) 10-12 g/dL
- d) 18-22 g/dL

Answer: b) 14-18 g/dL

140. Which of the following is the most common cause of hypokalemia?

- a) Diuretics
- b) Excessive potassium intake
- c) Kidney failure
- d) Renal artery stenosis

Answer: a) Diuretics

141. Which of the following tests is used to diagnose a urinary tract infection (UTI)?

- a) Urine culture
- b) Urinalysis
- c) Blood culture
- d) Both a and b

Answer: d) Both a and b

142. What is the normal value for white blood cells (WBC) in an adult?

- a) 3,000-5,000 cells/microL
- b) 4,000-11,000 cells/microL
- c) 11,000-18,000 cells/microL

d) 20,000-30,000 cells/microL

Answer: b) 4,000-11,000 cells/microL

143. Which of the following is the most common cause of hypoglycemia?

- a) Diabetes mellitus medication overdose
- b) Hyperthyroidism
- c) Liver failure
- d) Renal insufficiency

Answer: a) Diabetes mellitus medication overdose

144. Which of the following is a common marker for liver damage?

- a) Aspartate aminotransferase (AST)
- b) Alanine aminotransferase (ALT)
- c) Bilirubin
- d) All of the above

Answer: d) All of the above

145. Which of the following is a normal reference range for blood urea nitrogen (BUN)?

- a) 5-15 mg/dL
- b) 10-20 mg/dL
- c) 20-40 mg/dL
- d) 30-50 mg/dL

Answer: b) 10-20 mg/dL

146. Which of the following tests is used to monitor liver function?

- a) Bilirubin test
- b) Liver enzymes (ALT, AST)
- c) Serum albumin
- d) All of the above

Answer: d) All of the above

147. Which of the following is a marker for infection caused by the Epstein-Barr virus (EBV)?

- a) Anti-HIV antibodies
- b) HCV antibodies
- c) Heterophile antibodies
- d) Hepatitis B surface antigen

Answer: c) Heterophile antibodies

148.

Which of the following tests measures kidney function by evaluating the glomerular filtration rate (GFR)?

- a) Blood urea nitrogen (BUN)
- b) Serum creatinine
- c) Creatinine clearance test
- d) Both b and c

Answer: d) Both b and c

149. **What is the normal reference range for serum phosphate levels?**

- a) 1.5-2.5 mg/dL
- b) 2.5-4.5 mg/dL
- c) 4.5-5.5 mg/dL
- d) 5.5-7.0 mg/dL

Answer: b) 2.5-4.5 mg/dL

150. **Which of the following tests is used to detect the presence of rheumatoid arthritis?**

- a) C-reactive protein (CRP)
- b) Erythrocyte sedimentation rate (ESR)
- c) Rheumatoid factor test
- d) All of the above

Answer: d) All of the above

This completes the next set of 50 MCQs. Let me know if you need more!

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151. **Which of the following is a common cause of jaundice?**

- a) Liver disease
- b) Hemolysis

- c) Biliary obstruction
- d) All of the above

Answer: d) All of the above

152. **What is the normal reference range for blood glucose levels in a fasting state?**

- a) 70-100 mg/dL
- b) 100-120 mg/dL
- c) 120-140 mg/dL
- d) 140-160 mg/dL

Answer: a) 70-100 mg/dL

153. **Which of the following is a common cause of metabolic alkalosis?**

- a) Vomiting
- b) Diarrhea
- c) Kidney failure
- d) Hyperventilation

Answer: a) Vomiting

154. **Which test is used to evaluate the function of the pancreas?**

- a) Serum amylase
- b) Serum lipase
- c) Both a and b
- d) Blood urea nitrogen (BUN)

Answer: c) Both a and b

155. **What is the normal value for platelet count in an adult?**

- a) 100,000-200,000 cells/microL
- b) 150,000-450,000 cells/microL
- c) 450,000-600,000 cells/microL
- d) 600,000-800,000 cells/microL

Answer: b) 150,000-450,000 cells/microL

156. **Which of the following is an indicator of kidney damage in urine?**

- a) Proteinuria
- b) Hematuria
- c) Pyuria
- d) All of the above

Answer: d) All of the above

157. **Which of the following tests is commonly used to assess the risk of**

cardiovascular disease?

- a) High-density lipoprotein (HDL)
- b) Low-density lipoprotein (LDL)
- c) Total cholesterol
- d) All of the above

Answer: d) All of the above

158. **What is the normal range for red blood cell count in adult males?**

- a) 3.5-5.5 million cells/microL
- b) 4.5-6.0 million cells/microL
- c) 5.0-6.5 million cells/microL
- d) 4.0-5.5 million cells/microL

Answer: b) 4.5-6.0 million cells/microL

159. **Which of the following tests is used to detect bacterial infections?**

- a) Blood culture
- b) Urine culture
- c) Sputum culture
- d) All of the above

Answer: d) All of the above

160. **What is the normal range for serum potassium levels?**

- a) 2.5-3.5 mEq/L
- b) 3.5-5.0 mEq/L
- c) 5.0-6.0 mEq/L
- d) 6.0-7.0 mEq/L

Answer: b) 3.5-5.0 mEq/L

161. **Which of the following is a common cause of anemia?**

- a) Iron deficiency
- b) Vitamin B12 deficiency
- c) Folate deficiency
- d) All of the above

Answer: d) All of the above

162. **Which of the following tests is used to diagnose HIV infection?**

- a) ELISA test
- b) Western blot test
- c) PCR test
- d) All of the above

Answer: d) All of the above

163. **Which of the following is an indicator of liver function?**

- a) Bilirubin levels
- b) Aspartate aminotransferase (AST)
- c) Alanine aminotransferase (ALT)
- d) All of the above

Answer: d) All of the above

164. **Which of the following is the primary function of hemoglobin in red blood cells?**

- a) Carrying oxygen
- b) Carrying carbon dioxide
- c) Helping with clotting
- d) Protecting the body from infections

Answer: a) Carrying oxygen

165. **Which of the following tests is used to monitor blood coagulation in patients on anticoagulant therapy?**

- a) Prothrombin time (PT)
- b) International normalized ratio (INR)
- c) Activated partial thromboplastin time (aPTT)
- d) All of the above

Answer: d) All of the above

166. **Which of the following tests is used to assess the function of the thyroid gland?**

- a) Serum TSH
- b) Free T4
- c) Free T3
- d) All of the above

Answer: d) All of the above

167. **What is the normal reference range for hematocrit in adult males?**

- a) 30-40%
- b) 40-50%
- c) 50-60%
- d) 60-70%

Answer: b) 40-50%

168. **Which of the following is a characteristic feature of nephrotic syndrome?**

- a) Proteinuria

- b) Edema
 - c) Hypoalbuminemia
 - d) All of the above
- Answer:** d) All of the above

169. **What is the normal range for serum albumin levels?**

- a) 1.5-3.0 g/dL
 - b) 3.5-5.0 g/dL
 - c) 5.0-6.0 g/dL
 - d) 6.5-8.0 g/dL
- Answer:** b) 3.5-5.0 g/dL

170. **Which of the following is a marker for bone metabolism?**

- a) Alkaline phosphatase (ALP)
 - b) Calcium
 - c) Phosphorus
 - d) All of the above
- Answer:** d) All of the above

171. **Which of the following is the most common cause of acute kidney injury (AKI)?**

- a) Dehydration
 - b) Glomerulonephritis
 - c) Urinary tract obstruction
 - d) Acute tubular necrosis
- Answer:** d) Acute tubular necrosis

172. **Which of the following tests measures the amount of glucose in the blood?**

- a) Hemoglobin A1c
 - b) Blood glucose test
 - c) Oral glucose tolerance test (OGTT)
 - d) All of the above
- Answer:** d) All of the above

173. **What is the normal reference range for white blood cell (WBC) count in adults?**

- a) 2,000-5,000 cells/microL
 - b) 4,000-11,000 cells/microL
 - c) 11,000-15,000 cells/microL
 - d) 15,000-20,000 cells/microL
- Answer:** b) 4,000-11,000 cells/microL

174. **Which of the following tests is used to diagnose tuberculosis (TB)?**

- a) Chest X-ray
 - b) Sputum acid-fast bacilli (AFB) smear
 - c) Mantoux test (tuberculin skin test)
 - d) All of the above
- Answer:** d) All of the above

175. **Which of the following is a marker for myocardial infarction (MI)?**

- a) Troponin
 - b) Creatine kinase-MB (CK-MB)
 - c) Myoglobin
 - d) All of the above
- Answer:** d) All of the above

176. **Which of the following is the normal reference range for total cholesterol?**

- a) 100-150 mg/dL
 - b) 150-200 mg/dL
 - c) 200-250 mg/dL
 - d) 250-300 mg/dL
- Answer:** b) 150-200 mg/dL

177. **What is the normal range for serum sodium levels?**

- a) 120-135 mEq/L
 - b) 135-145 mEq/L
 - c) 145-160 mEq/L
 - d) 160-175 mEq/L
- Answer:** b) 135-145 mEq/L

178. **Which of the following is a complication of untreated diabetes mellitus?**

- a) Retinopathy
 - b) Nephropathy
 - c) Neuropathy
 - d) All of the above
- Answer:** d) All of the above

179. **Which of the following tests measures the level of vitamin D in the blood?**

- a) 25-hydroxyvitamin D test
- b) Vitamin B12 test

- c) Folate test
 - d) Serum calcium test
- Answer:** a) 25-hydroxyvitamin D test

180. Which of the following tests is used to assess renal function?

- a) Serum creatinine
- b) Blood urea nitrogen (BUN)
- c) Urinalysis
- d) All of the above

Answer: d) All of the above

181. Which of the following is a test for detecting infection by Chlamydia trachomatis?

- a) PCR test
- b) Urine culture
- c) Serology test
- d) Blood culture

Answer: a) PCR test

182. Which of the following is commonly used to monitor HIV progression?

- a) Viral load test
- b) CD4 count
- c) Both a and b
- d) Western blot test

Answer: c) Both a and b

183. Which of the following is a potential complication of untreated hypertension?

- a) Stroke
- b) Heart attack
- c) Kidney damage
- d) All of the above

Answer: d) All of the above

184. Which of the following is used to assess the risk of developing cardiovascular disease?

- a) Lipid profile
- b) Blood pressure
- c) Family history
- d) All of the above

Answer: d) All of the above

185. Which of the following tests measures the levels of electrolytes in the blood?

- a) Serum sodium
- b) Serum potassium
- c) Serum chloride
- d) All of the above

Answer: d) All of the above

This is the next set of 50 MCQs. Let me know if you need more!

Prepare: Bijay kumar Mahato

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186. What is the normal range for serum calcium levels?

- a) 6.0-7.0 mg/dL
- b) 7.5-9.0 mg/dL
- c) 8.5-10.5 mg/dL
- d) 10.5-12.0 mg/dL

Answer: c) 8.5-10.5 mg/dL

187. Which of the following tests is used to diagnose liver cirrhosis?

- a) Liver biopsy
- b) Liver function tests
- c) Ultrasonography
- d) All of the above

Answer: d) All of the above

188. Which of the following tests can be used to monitor iron deficiency anemia?

- a) Serum ferritin
- b) Serum iron
- c) Total iron-binding capacity (TIBC)

d) All of the above

Answer: d) All of the above

189. **What is the normal reference range for white blood cell (WBC) differential count?**

a) Neutrophils 40-70%, Lymphocytes 20-40%, Monocytes 2-8%, Eosinophils 1-4%, Basophils 0-1%

b) Neutrophils 50-80%, Lymphocytes 15-30%, Monocytes 5-10%, Eosinophils 1-5%, Basophils 0-1%

c) Neutrophils 35-65%, Lymphocytes 25-45%, Monocytes 5-10%, Eosinophils 0-4%, Basophils 0-1%

d) Neutrophils 60-80%, Lymphocytes 10-20%, Monocytes 5-10%, Eosinophils 2-5%, Basophils 0-1%

Answer: a) Neutrophils 40-70%, Lymphocytes 20-40%, Monocytes 2-8%, Eosinophils 1-4%, Basophils 0-1%

190. **Which of the following is a common marker for prostate cancer?**

a) Alpha-fetoprotein (AFP)

b) Prostate-specific antigen (PSA)

c) CA 125

d) CA 19-9

Answer: b) Prostate-specific antigen (PSA)

191. **Which of the following tests measures the amount of carbon dioxide in the blood?**

a) pH test

b) pCO₂ test

c) O₂ saturation test

d) Bicarbonate (HCO₃) test

Answer: b) pCO₂ test

192. **What is the normal range for total bilirubin in adults?**

a) 0.1-0.3 mg/dL

b) 0.3-1.2 mg/dL

c) 1.2-2.5 mg/dL

d) 2.5-4.0 mg/dL

Answer: b) 0.3-1.2 mg/dL

193. **Which of the following is a potential complication of untreated hyperthyroidism?**

a) Goiter

b) Heart failure

c) Osteoporosis

d) All of the above

Answer: d) All of the above

194. **Which of the following tests is used to monitor diabetic patients for nephropathy?**

a) Urinary albumin-to-creatinine ratio

b) Serum creatinine

c) Blood urea nitrogen (BUN)

d) All of the above

Answer: a) Urinary albumin-to-creatinine ratio

195. **What is the most common method for testing for Helicobacter pylori infection?**

a) Blood culture

b) Stool antigen test

c) Breath test

d) Biopsy

Answer: c) Breath test

196. **Which of the following is an important factor to monitor in patients with liver disease?**

a) Prothrombin time (PT)

b) Serum albumin

c) Bilirubin levels

d) All of the above

Answer: d) All of the above

197. **What is the normal range for serum phosphorus levels?**

a) 1.5-2.5 mg/dL

b) 2.5-4.5 mg/dL

c) 3.5-5.5 mg/dL

d) 5.0-6.5 mg/dL

Answer: b) 2.5-4.5 mg/dL

198. **Which of the following is a risk factor for developing deep vein thrombosis (DVT)?**

- a) Prolonged immobility
- b) Smoking
- c) Obesity
- d) All of the above

Answer: d) All of the above

199. **Which of the following tests is used to assess the status of the immune system?**

- a) CD4 count
- b) Serum immunoglobulins
- c) Antibody titers
- d) All of the above

Answer: d) All of the above

200. **What is the normal reference range for hemoglobin levels in adult females?**

- a) 12-14 g/dL
- b) 14-16 g/dL
- c) 16-18 g/dL
- d) 18-20 g/dL

Answer: a) 12-14 g/dL

201. **Which of the following is used to monitor blood oxygen levels?**

- a) Pulse oximeter
- b) Arterial blood gas (ABG) test
- c) Both a and b
- d) None of the above

Answer: c) Both a and b

202. **What is the normal reference range for serum triglycerides?**

- a) 10-150 mg/dL
- b) 150-250 mg/dL
- c) 250-350 mg/dL
- d) 350-450 mg/dL

Answer: a) 10-150 mg/dL

203. **Which of the following tests is used to assess the coagulation system?**

- a) Prothrombin time (PT)
- b) Activated partial thromboplastin time (aPTT)
- c) International normalized ratio (INR)
- d) All of the above

Answer: d) All of the above

204. **Which of the following is a common cause of hypercalcemia?**

- a) Hyperparathyroidism
- b) Cancer
- c) Vitamin D toxicity
- d) All of the above

Answer: d) All of the above

205. **Which test is used to detect the presence of Streptococcus pyogenes infection?**

- a) Throat culture
- b) Rapid antigen test
- c) PCR test
- d) All of the above

Answer: d) All of the above

206. **What is the normal range for serum creatinine in adults?**

- a) 0.1-0.5 mg/dL
- b) 0.5-1.0 mg/dL
- c) 1.0-1.5 mg/dL
- d) 1.5-2.0 mg/dL

Answer: b) 0.5-1.0 mg/dL

207. **Which of the following tests is used to evaluate the function of the adrenal glands?**

- a) Cortisol level
- b) Adrenocorticotropic hormone (ACTH) test
- c) Both a and b
- d) Aldosterone level

Answer: c) Both a and b

208. **Which of the following is a common cause of hyperkalemia?**

- a) Renal failure
- b) Acidosis
- c) Excessive potassium intake
- d) All of the above

Answer: d) All of the above

209. **What is the normal range for serum albumin in adults?**

- a) 2.5-3.5 g/dL

- b) 3.5-5.0 g/dL
 - c) 5.0-6.0 g/dL
 - d) 6.0-7.5 g/dL
- Answer:** b) 3.5-5.0 g/dL

210. **Which of the following is the first-line treatment for hypoglycemia?**

- a) Intravenous glucose
- b) Oral glucose
- c) Intravenous insulin
- d) Oral prednisone

Answer: b) Oral glucose

211. **Which of the following is used to monitor blood urea nitrogen (BUN) levels?**

- a) Renal function tests
- b) Urinalysis
- c) Complete blood count (CBC)
- d) Liver function tests

Answer: a) Renal function tests

212. **Which of the following is a marker for liver inflammation?**

- a) Aspartate aminotransferase (AST)
- b) Alanine aminotransferase (ALT)
- c) Alkaline phosphatase (ALP)
- d) Both a and b

Answer: d) Both a and b

213. **What is the normal range for red blood cell (RBC) count in adult females?**

- a) 3.5-5.5 million cells/microL
- b) 4.0-5.0 million cells/microL
- c) 4.5-6.0 million cells/microL
- d) 5.0-6.5 million cells/microL

Answer: b) 4.0-5.0 million cells/microL

214. **Which of the following tests is used to diagnose syphilis?**

- a) Rapid plasma reagin (RPR) test
- b) Venereal disease research laboratory (VDRL) test
- c) Fluorescent treponemal antibody absorption (FTA-ABS) test
- d) All of the above

Answer: d) All of the above

215. **Which of the following is the most common cause of hyperlipidemia?**

- a) Dietary factors
- b) Genetic factors
- c) Lack of exercise
- d) All of the above

Answer: d) All of the above

216. **What is the normal reference range for prothrombin time (PT)?**

- a) 8-12 seconds
- b) 10-15 seconds
- c) 15-20 seconds
- d) 20-30 seconds

Answer: a) 8-12 seconds

217. **Which of the following tests is used to assess the function of the pituitary gland?**

- a) Growth hormone levels
- b) Prolactin levels
- c) ACTH stimulation test
- d) All of the above

Answer: d) All of the above

218. **Which of the following is the most common cause of hyperuricemia?**

- a) Gout
- b) Renal failure
- c) High purine diet
- d) All of the above

Answer: d) All of the above

219. **Which of the following tests is used to detect the presence of Streptococcus pneumoniae?**

- a) Urinary antigen test
- b) Blood culture
- c) Chest X-ray
- d) All of the above

Answer: d) All of the above

220. **Which of the following is a marker for colorectal cancer?**

- a) Carcinoembryonic antigen (CEA)
- b) CA 19-9
- c) CA 125

d) Both a and b

Answer: d) Both a and b

These are the next set of 50 MCQs. Let me know if you need more!

Prepare: Bijay kumar Mahato

Here are MCQs for your laboratory medicine preparation:

Prepare: Bijay kumar Mahato(Part 7)

221. **Which of the following is the most common cause of hypokalemia?**

- a) Renal failure
- b) Diarrhea
- c) Excessive potassium intake
- d) Dehydration

Answer: b) Diarrhea

222. **What does a low hematocrit value indicate?**

- a) Dehydration
- b) Anemia
- c) Polycythemia
- d) Leukemia

Answer: b) Anemia

223. **Which of the following tests is used to diagnose tuberculosis (TB)?**

- a) Chest X-ray
- b) Sputum smear for acid-fast bacilli (AFB)
- c) Tuberculin skin test (TST)
- d) All of the above

Answer: d) All of the above

224. **Which of the following is a direct test to detect HIV?**

- a) HIV antibody test

b) HIV RNA PCR test

c) HIV antigen test

d) All of the above

Answer: b) HIV RNA PCR test

225. **What is the normal range for serum potassium levels?**

- a) 3.0-4.0 mmol/L
- b) 3.5-5.0 mmol/L
- c) 5.0-6.0 mmol/L
- d) 6.0-7.0 mmol/L

Answer: b) 3.5-5.0 mmol/L

226. **Which of the following tests is used to evaluate thyroid function?**

- a) TSH (Thyroid Stimulating Hormone)
- b) T3 (Triiodothyronine)
- c) T4 (Thyroxine)
- d) All of the above

Answer: d) All of the above

227. **Which of the following tests is used to measure the concentration of glucose in the blood?**

- a) Fasting blood glucose (FBG)
- b) Oral glucose tolerance test (OGTT)
- c) Hemoglobin A1c
- d) All of the above

Answer: d) All of the above

228. **Which of the following is the most common cause of hypoglycemia in non-diabetic patients?**

- a) Insulinoma
- b) Sepsis
- c) Alcohol consumption
- d) All of the above

Answer: d) All of the above

229. **Which of the following is a potential complication of untreated hyperthyroidism?**

- a) Heart failure
- b) Goiter
- c) Osteoporosis
- d) All of the above

Answer: d) All of the above

230. Which of the following tests is used to diagnose acute pancreatitis?

- a) Serum amylase
- b) Serum lipase
- c) Abdominal ultrasound
- d) All of the above

Answer: d) All of the above

231. What is the normal range for serum albumin?

- a) 1.0-2.0 g/dL
- b) 2.0-3.5 g/dL
- c) 3.5-5.0 g/dL
- d) 5.0-6.0 g/dL

Answer: c) 3.5-5.0 g/dL

232. Which of the following tests is used to evaluate kidney function?

- a) Serum creatinine
- b) Blood urea nitrogen (BUN)
- c) Glomerular filtration rate (GFR)
- d) All of the above

Answer: d) All of the above

233. What is the primary function of neutrophils in the immune system?

- a) Antibody production
- b) Phagocytosis of bacteria
- c) Antigen presentation
- d) Histamine release

Answer: b) Phagocytosis of bacteria

234. Which of the following is the most common test to diagnose bacterial pneumonia?

- a) Chest X-ray
- b) Sputum culture
- c) Blood culture
- d) Urinary antigen test

Answer: b) Sputum culture

235. Which of the following tests is used to diagnose iron deficiency anemia?

- a) Serum ferritin
- b) Serum iron
- c) Total iron-binding capacity (TIBC)

d) All of the above

Answer: d) All of the above

236. Which of the following is the most common test to diagnose urinary tract infections (UTIs)?

- a) Urine culture
- b) Urine microscopy
- c) Urine dipstick test
- d) All of the above

Answer: a) Urine culture

237. What is the normal range for total cholesterol?

- a) 100-150 mg/dL
- b) 150-200 mg/dL
- c) 200-250 mg/dL
- d) 250-300 mg/dL

Answer: b) 150-200 mg/dL

238. What is the most common cause of hemolytic anemia?

- a) Iron deficiency
- b) Vitamin B12 deficiency
- c) Sickle cell disease
- d) Aplastic anemia

Answer: c) Sickle cell disease

239. Which of the following is the most common test to detect tuberculosis?

- a) Chest X-ray
- b) Sputum acid-fast bacillus (AFB) smear
- c) Tuberculin skin test
- d) All of the above

Answer: d) All of the above

240. What is the normal reference range for platelet count?

- a) 100,000-200,000 cells/ μ L
- b) 150,000-450,000 cells/ μ L
- c) 200,000-500,000 cells/ μ L
- d) 50,000-100,000 cells/ μ L

Answer: b) 150,000-450,000 cells/ μ L

241. Which of the following tests is used to diagnose hepatitis C infection?

- a) Hepatitis C antibody test
- b) Hepatitis C RNA PCR test
- c) Liver biopsy
- d) All of the above

Answer: d) All of the above

242. **What is the normal reference range for erythrocyte sedimentation rate (ESR)?**

- a) 0-10 mm/hr
- b) 10-20 mm/hr
- c) 20-30 mm/hr
- d) 30-40 mm/hr

Answer: a) 0-10 mm/hr

243. **Which of the following tests is used to monitor chronic kidney disease?**

- a) Serum creatinine
- b) Glomerular filtration rate (GFR)
- c) Urinalysis
- d) All of the above

Answer: d) All of the above

244. **Which of the following is a risk factor for developing diabetes mellitus?**

- a) Family history
- b) Obesity
- c) Physical inactivity
- d) All of the above

Answer: d) All of the above

245. **Which of the following is an indicator of a bacterial infection in a complete blood count (CBC)?**

- a) High lymphocyte count
- b) High monocyte count
- c) High neutrophil count
- d) Low neutrophil count

Answer: c) High neutrophil count

246. **Which of the following tests is used to assess liver function?**

- a) Serum bilirubin
- b) Serum transaminases (ALT, AST)
- c) Alkaline phosphatase (ALP)
- d) All of the above

Answer: d) All of the above

247. **What is the most common test used to diagnose a urinary tract infection (UTI)?**

- a) Urine dipstick test
- b) Urine culture
- c) Urine microscopy
- d) Blood culture

Answer: b) Urine culture

248. **Which of the following tests is used to detect rheumatoid arthritis?**

- a) C-reactive protein (CRP)
- b) Rheumatoid factor (RF)
- c) Antinuclear antibody (ANA)
- d) All of the above

Answer: b) Rheumatoid factor (RF)

249. **Which of the following is the most common cause of acquired immune deficiency syndrome (AIDS)?**

- a) HIV-1
- b) HIV-2
- c) Herpes simplex virus
- d) Hepatitis C virus

Answer: a) HIV-1

250. **Which of the following is used to monitor the effectiveness of treatment for tuberculosis?**

- a) Sputum smear for acid-fast bacilli (AFB)
- b) Chest X-ray
- c) Tuberculin skin test
- d) All of the above

Answer: a) Sputum smear for acid-fast bacilli (AFB)

This concludes another set of 50 MCQs for your preparation. Let me know if you need more!

Prepare: Bijay kumar Mahato

Here are MCQs for your laboratory medicine preparation:

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251. Which of the following tests is used to diagnose systemic lupus erythematosus (SLE)?
- a) Antinuclear antibody (ANA) test
 - b) Rheumatoid factor (RF) test
 - c) C-reactive protein (CRP) test
 - d) Blood culture
- Answer:** a) Antinuclear antibody (ANA) test
252. What is the most commonly used anticoagulant in blood collection for routine coagulation studies?
- a) EDTA
 - b) Sodium citrate
 - c) Heparin
 - d) Oxalate
- Answer:** b) Sodium citrate
253. Which of the following is an indicator of an acute myocardial infarction (MI)?
- a) Elevated troponin levels
 - b) Elevated serum bilirubin
 - c) Low hemoglobin levels
 - d) Low blood pressure
- Answer:** a) Elevated troponin levels
254. Which of the following is a typical cause of elevated alkaline phosphatase (ALP) levels?
- a) Liver disease
 - b) Bone disease
 - c) Pregnancy
 - d) All of the above
- Answer:** d) All of the above
255. Which of the following is commonly tested for in a comprehensive metabolic panel (CMP)?
- a) Glucose

- b) Sodium
- c) Potassium
- d) All of the above

Answer: d) All of the above

256. What is the primary use of a complete blood count (CBC) test?
- a) To assess liver function
 - b) To diagnose bacterial infections
 - c) To assess overall health and detect disorders like anemia, infection, and many other diseases
 - d) To monitor kidney function
- Answer:** c) To assess overall health and detect disorders like anemia, infection, and many other diseases
257. Which of the following is used to assess kidney function?
- a) Glomerular filtration rate (GFR)
 - b) Serum creatinine
 - c) Blood urea nitrogen (BUN)
 - d) All of the above
- Answer:** d) All of the above
258. Which of the following is a laboratory test for diagnosing bacterial meningitis?
- a) Blood culture
 - b) CSF analysis
 - c) Urine culture
 - d) All of the above
- Answer:** b) CSF analysis
259. Which of the following tests is used to diagnose diabetes mellitus?
- a) Oral glucose tolerance test (OGTT)
 - b) Fasting blood glucose (FBG)
 - c) Hemoglobin A1c
 - d) All of the above
- Answer:** d) All of the above
260. What is the normal range for blood glucose levels?
- a) 60-100 mg/dL (fasting)
 - b) 100-140 mg/dL (fasting)

- c) 200-300 mg/dL (fasting)
 - d) 300-400 mg/dL (fasting)
- Answer:** a) 60-100 mg/dL (fasting)

261. Which of the following conditions is associated with elevated levels of bilirubin?

- a) Jaundice
- b) Hemolysis
- c) Liver disease
- d) All of the above

Answer: d) All of the above

262. Which of the following is a test for liver function?

- a) Serum alanine transaminase (ALT)
- b) Serum aspartate transaminase (AST)
- c) Serum bilirubin
- d) All of the above

Answer: d) All of the above

263. Which of the following tests is used to monitor blood coagulation?

- a) Prothrombin time (PT)
- b) Activated partial thromboplastin time (aPTT)
- c) International normalized ratio (INR)
- d) All of the above

Answer: d) All of the above

264. What is the main purpose of performing an arterial blood gas (ABG) test?

- a) To assess kidney function
- b) To assess the oxygenation and acid-base balance in the blood
- c) To assess liver function
- d) To check for anemia

Answer: b) To assess the oxygenation and acid-base balance in the blood

265. What is the normal range for white blood cell count (WBC)?

- a) 4,000-10,000 cells/ μ L
- b) 10,000-20,000 cells/ μ L
- c) 20,000-30,000 cells/ μ L
- d) 30,000-40,000 cells/ μ L

Answer: a) 4,000-10,000 cells/ μ L

266. Which of the following is the most common cause of anemia worldwide?

- a) Vitamin B12 deficiency
- b) Folate deficiency
- c) Iron deficiency
- d) Aplastic anemia

Answer: c) Iron deficiency

267. Which of the following is an indicator of kidney dysfunction?

- a) Elevated blood urea nitrogen (BUN)
- b) Elevated serum creatinine
- c) Low glomerular filtration rate (GFR)
- d) All of the above

Answer: d) All of the above

268. Which of the following is used to diagnose human immunodeficiency virus (HIV) infection?

- a) HIV antibody test
- b) HIV RNA PCR test
- c) CD4 count
- d) All of the above

Answer: d) All of the above

269. Which of the following is a test for detecting iron deficiency anemia?

- a) Serum ferritin
- b) Total iron-binding capacity (TIBC)
- c) Serum iron
- d) All of the above

Answer: d) All of the above

270. Which of the following is commonly used to diagnose a bacterial urinary tract infection (UTI)?

- a) Urine dipstick test
- b) Urine culture
- c) Blood culture
- d) Chest X-ray

Answer: b) Urine culture

271. What is the normal range for platelet count in adults?

- a) 100,000-200,000 cells/ μ L
- b) 150,000-450,000 cells/ μ L

- c) 200,000-500,000 cells/ μ L
 - d) 50,000-150,000 cells/ μ L
- Answer:** b) 150,000-450,000 cells/ μ L

272. Which of the following tests is used to assess the function of the thyroid gland?

- a) T3 (Triiodothyronine)
- b) T4 (Thyroxine)
- c) TSH (Thyroid Stimulating Hormone)
- d) All of the above

Answer: d) All of the above

273. Which of the following tests is used to evaluate bone metabolism?

- a) Serum calcium
- b) Serum phosphate
- c) Alkaline phosphatase (ALP)
- d) All of the above

Answer: d) All of the above

274. What does a high level of creatine kinase (CK) indicate?

- a) Heart attack
- b) Muscle injury
- c) Kidney damage
- d) All of the above

Answer: d) All of the above

275. Which of the following is a marker for prostate cancer?

- a) Prostate-specific antigen (PSA)
- b) Alpha-fetoprotein (AFP)
- c) Carcinoembryonic antigen (CEA)
- d) Human chorionic gonadotropin (hCG)

Answer: a) Prostate-specific antigen (PSA)

276. Which of the following is a test to evaluate the function of the heart?

- a) Electrocardiogram (ECG)
- b) Troponin levels
- c) Echocardiogram
- d) All of the above

Answer: d) All of the above

277. Which of the following is used to measure kidney function in patients with

chronic kidney disease?

- a) Serum creatinine
- b) Glomerular filtration rate (GFR)
- c) Urinary albumin
- d) All of the above

Answer: d) All of the above

278. What is the purpose of performing a culture and sensitivity test?

- a) To detect the presence of bacteria or fungi in a specimen
- b) To determine the most effective antibiotic for treatment
- c) To identify pathogens responsible for infections
- d) All of the above

Answer: d) All of the above

279. What is the most common cause of hyperkalemia?

- a) Kidney failure
- b) Excessive potassium intake
- c) Diarrhea
- d) Vomiting

Answer: a) Kidney failure

280. Which of the following tests is used to monitor coagulation in patients on anticoagulant therapy?

- a) Prothrombin time (PT)
- b) Activated partial thromboplastin time (aPTT)
- c) International normalized ratio (INR)
- d) All of the above

Answer: d) All of the above

Let me know if you need further assistance!

Prepare: Bijay kumar Mahato

Here are MCQs for your laboratory medicine preparation:

Prepare: Bijay kumar Mahato(Part 9)

281. Which of the following is a cause of elevated erythrocyte sedimentation rate (ESR)?

- a) Anemia
- b) Inflammation
- c) Infection
- d) All of the above

Answer: d) All of the above

282. Which of the following tests is used to assess liver function?

- a) Alanine transaminase (ALT)
- b) Aspartate transaminase (AST)
- c) Bilirubin
- d) All of the above

Answer: d) All of the above

283. Which test is used to monitor the effectiveness of warfarin therapy?

- a) Prothrombin time (PT)
- b) International normalized ratio (INR)
- c) Activated partial thromboplastin time (aPTT)
- d) All of the above

Answer: b) International normalized ratio (INR)

284. Which of the following is a classic marker for liver damage?

- a) Bilirubin
- b) Alkaline phosphatase (ALP)
- c) Aspartate transaminase (AST)
- d) All of the above

Answer: d) All of the above

285. What is the main use of a urine dipstick test?

- a) To determine kidney function
- b) To screen for urinary tract infections

- c) To detect metabolic disorders
- d) To assess liver function

Answer: b) To screen for urinary tract infections

286. What is the normal range for hemoglobin in males?

- a) 10-12 g/dL
- b) 12-16 g/dL
- c) 14-18 g/dL
- d) 16-20 g/dL

Answer: b) 12-16 g/dL

287. Which of the following is the most common cause of hypercalcemia?

- a) Hyperparathyroidism
- b) Vitamin D deficiency
- c) Kidney disease
- d) Acute pancreatitis

Answer: a) Hyperparathyroidism

288. What is the primary function of the enzyme amylase in the body?

- a) Breakdown of proteins
- b) Breakdown of carbohydrates
- c) Breakdown of lipids
- d) Breakdown of nucleic acids

Answer: b) Breakdown of carbohydrates

289. Which of the following is used to monitor thyroid function?

- a) Free T3
- b) Free T4
- c) TSH (Thyroid Stimulating Hormone)
- d) All of the above

Answer: d) All of the above

290. Which of the following tests is used to detect the presence of bacterial infections in the blood?

- a) Urine culture
- b) Blood culture
- c) Sputum culture
- d) Stool culture

Answer: b) Blood culture

291. Which of the following is commonly tested in a lipid profile?

- a) Total cholesterol
- b) High-density lipoprotein (HDL)
- c) Low-density lipoprotein (LDL)
- d) All of the above

Answer: d) All of the above

292. Which of the following is a common test used to diagnose acute myocardial infarction (MI)?

- a) Troponin I
- b) Creatine kinase MB (CK-MB)
- c) Myoglobin
- d) All of the above

Answer: d) All of the above

293. What is the normal range for blood pH?

- a) 7.35-7.45
- b) 7.45-7.55
- c) 6.35-6.45
- d) 8.0-8.5

Answer: a) 7.35-7.45

294. Which of the following is used to evaluate kidney function?

- a) Serum creatinine
- b) Glomerular filtration rate (GFR)
- c) Blood urea nitrogen (BUN)
- d) All of the above

Answer: d) All of the above

295. Which of the following tests is used to detect the presence of a urinary tract infection (UTI)?

- a) Urine dipstick test
- b) Urine culture
- c) Blood culture
- d) Sputum culture

Answer: b) Urine culture

296. Which of the following is a marker for myocardial infarction?

- a) Troponin
- b) C-reactive protein (CRP)

- c) Procalcitonin
- d) Alpha-fetoprotein (AFP)

Answer: a) Troponin

297. What is the normal range for platelet count in adults?

- a) 100,000-200,000/ μ L
- b) 150,000-450,000/ μ L
- c) 200,000-500,000/ μ L
- d) 250,000-500,000/ μ L

Answer: b) 150,000-450,000/ μ L

298. Which of the following tests is used to evaluate kidney function in patients with chronic kidney disease?

- a) Serum creatinine
- b) Urinary albumin
- c) Glomerular filtration rate (GFR)
- d) All of the above

Answer: d) All of the above

299. Which of the following is a test used to diagnose anemia?

- a) Hemoglobin measurement
- b) Hematocrit measurement
- c) Red blood cell count
- d) All of the above

Answer: d) All of the above

300. Which of the following tests is used to assess the acid-base balance in the blood?

- a) Arterial blood gas (ABG)
- b) Electrolyte panel
- c) Complete blood count (CBC)
- d) Urine analysis

Answer: a) Arterial blood gas (ABG)

301. Which of the following is the primary method for diagnosing tuberculosis (TB)?

- a) Chest X-ray
- b) Sputum culture for Mycobacterium tuberculosis
- c) Tuberculin skin test (TST)
- d) Blood test for TB

Answer: b) Sputum culture for Mycobacterium tuberculosis

302. Which of the following is a condition characterized by low blood glucose levels?

- a) Hyperglycemia
- b) Hypoglycemia
- c) Diabetes mellitus
- d) Insulin resistance

Answer: b) Hypoglycemia

303. Which of the following is used to detect the presence of an infection caused by human papillomavirus (HPV)?

- a) Pap smear
- b) HPV DNA test
- c) Blood culture
- d) All of the above

Answer: b) HPV DNA test

304. Which of the following tests is used to assess bone mineral density?

- a) Serum calcium test
- b) Dual-energy X-ray absorptiometry (DEXA) scan
- c) Urine calcium excretion test
- d) Bone marrow biopsy

Answer: b) Dual-energy X-ray absorptiometry (DEXA) scan

305. What is the normal range for total cholesterol in adults?

- a) Less than 200 mg/dL
- b) 200-250 mg/dL
- c) 250-300 mg/dL
- d) 300-350 mg/dL

Answer: a) Less than 200 mg/dL

306. Which of the following is a marker for prostate cancer?

- a) Alpha-fetoprotein (AFP)
- b) Prostate-specific antigen (PSA)
- c) Carcinoembryonic antigen (CEA)
- d) Beta-hCG

Answer: b) Prostate-specific antigen (PSA)

307. What is the most commonly used method for glucose monitoring in diabetes patients?

- a) Hemoglobin A1c test
- b) Fingertick blood glucose test
- c) Oral glucose tolerance test (OGTT)
- d) Fasting blood glucose test

Answer: b) Fingertick blood glucose test

308. Which of the following is a test to evaluate respiratory function?

- a) Chest X-ray
- b) Pulmonary function tests (PFTs)
- c) Arterial blood gas (ABG)
- d) All of the above

Answer: d) All of the above

309. What is the normal range for serum sodium?

- a) 120-135 mEq/L
- b) 135-145 mEq/L
- c) 145-155 mEq/L
- d) 150-160 mEq/L

Answer: b) 135-145 mEq/L

310. Which of the following is a typical indicator of inflammation?

- a) C-reactive protein (CRP)
- b) White blood cell count
- c) Erythrocyte sedimentation rate (ESR)
- d) All of the above

Answer: d) All of the above

Let me know if you need more MCQs or assistance!

Prepare: Bijay kumar Mahato

Here are MCQs for your laboratory medicine preparation:

Prepare: Bijay kumar Mahato(Part 10)

311. Which of the following is the primary test used to assess kidney function?

- a) Blood urea nitrogen (BUN)
- b) Serum creatinine
- c) Glomerular filtration rate (GFR)
- d) All of the above

Answer: d) All of the above

312. What is the normal range for serum potassium in adults?

- a) 3.5-5.0 mEq/L
- b) 5.0-6.5 mEq/L
- c) 6.5-7.5 mEq/L
- d) 7.5-8.5 mEq/L

Answer: a) 3.5-5.0 mEq/L

313. Which of the following tests is used to evaluate blood clotting function?

- a) Prothrombin time (PT)
- b) Activated partial thromboplastin time (aPTT)
- c) International normalized ratio (INR)
- d) All of the above

Answer: d) All of the above

314. What is the primary purpose of performing a urinalysis?

- a) To detect kidney dysfunction
- b) To screen for diabetes
- c) To diagnose urinary tract infections
- d) All of the above

Answer: d) All of the above

315. Which of the following is commonly tested to assess the function of the heart?

- a) Troponin
- b) Creatine kinase (CK)
- c) B-type natriuretic peptide (BNP)
- d) All of the above

Answer: d) All of the above

316. What is the most common cause of elevated levels of liver enzymes?

- a) Viral hepatitis
- b) Alcoholic liver disease
- c) Fatty liver disease

d) All of the above

Answer: d) All of the above

317. Which of the following tests is used to diagnose syphilis?

- a) VDRL (Venereal Disease Research Laboratory) test
- b) RPR (Rapid Plasma Reagin) test
- c) Treponema pallidum hemagglutination assay (TPHA)
- d) All of the above

Answer: d) All of the above

318. Which of the following is used to monitor long-term blood sugar control in diabetes patients?

- a) Fingerstick blood glucose test
- b) Oral glucose tolerance test (OGTT)
- c) Hemoglobin A1c test
- d) Fasting blood glucose test

Answer: c) Hemoglobin A1c test

319. Which of the following is a marker for acute myocardial infarction (MI)?

- a) Creatine kinase (CK)
- b) Troponin I
- c) Myoglobin
- d) All of the above

Answer: d) All of the above

320. What is the normal range for total white blood cell count in adults?

- a) 4,000-10,000/ μ L
- b) 5,000-15,000/ μ L
- c) 10,000-20,000/ μ L
- d) 15,000-25,000/ μ L

Answer: a) 4,000-10,000/ μ L

321. Which of the following is used to test for the presence of a urinary tract infection (UTI)?

- a) Urine culture
- b) Urine dipstick test
- c) Urine microscopy
- d) All of the above

Answer: d) All of the above

322. Which of the following is a common cause of hyperkalemia?

- a) Kidney failure
- b) Dehydration
- c) Hyperaldosteronism
- d) Hypokalemia

Answer: a) Kidney failure

323. Which of the following is used to evaluate the function of the thyroid gland?

- a) Serum TSH (Thyroid Stimulating Hormone)
- b) Serum Free T4
- c) Serum Free T3
- d) All of the above

Answer: d) All of the above

324. Which of the following tests is used to monitor renal function?

- a) Blood urea nitrogen (BUN)
- b) Serum creatinine
- c) Urine albumin-to-creatinine ratio
- d) All of the above

Answer: d) All of the above

325. What is the normal range for serum calcium in adults?

- a) 8.5-10.2 mg/dL
- b) 10.2-12.0 mg/dL
- c) 12.0-14.0 mg/dL
- d) 14.0-16.0 mg/dL

Answer: a) 8.5-10.2 mg/dL

326. Which of the following is a common cause of hypokalemia?

- a) Diuretic use
- b) Excessive vomiting
- c) Hyperaldosteronism
- d) All of the above

Answer: d) All of the above

327. What is the normal range for fasting blood glucose in adults?

- a) 60-100 mg/dL
- b) 70-110 mg/dL
- c) 80-120 mg/dL

d) 90-130 mg/dL

Answer: a) 60-100 mg/dL

328. Which of the following is a test to evaluate liver function?

- a) Alanine transaminase (ALT)
- b) Aspartate transaminase (AST)
- c) Alkaline phosphatase (ALP)
- d) All of the above

Answer: d) All of the above

329. What is the normal range for hemoglobin A1c in adults without diabetes?

- a) 4.0-5.6%
- b) 5.7-6.4%
- c) 6.5-7.0%
- d) 7.0-8.0%

Answer: a) 4.0-5.6%

330. Which of the following is a common marker for inflammation?

- a) C-reactive protein (CRP)
- b) Erythrocyte sedimentation rate (ESR)
- c) White blood cell count (WBC)
- d) All of the above

Answer: d) All of the above

331. Which of the following is used to evaluate vitamin D deficiency?

- a) Serum calcium levels
- b) 25-hydroxyvitamin D test
- c) Serum albumin levels
- d) Parathyroid hormone (PTH) levels

Answer: b) 25-hydroxyvitamin D test

332. Which of the following tests is used to diagnose tuberculosis?

- a) Chest X-ray
- b) Sputum culture for Mycobacterium tuberculosis
- c) Tuberculin skin test
- d) All of the above

Answer: d) All of the above

333. Which of the following is a common marker for colorectal cancer?

- a) Alpha-fetoprotein (AFP)
- b) Carcinoembryonic antigen (CEA)
- c) Prostate-specific antigen (PSA)
- d) Beta-hCG

Answer: b) Carcinoembryonic antigen (CEA)

334. **Which of the following is the most common cause of elevated bilirubin levels in neonates?**

- a) Neonatal jaundice
- b) Hemolytic anemia
- c) Hepatitis
- d) Cirrhosis

Answer: a) Neonatal jaundice

335. **What is the normal range for erythrocyte sedimentation rate (ESR)?**

- a) 0-10 mm/h
- b) 10-20 mm/h
- c) 20-30 mm/h
- d) 30-40 mm/h

Answer: a) 0-10 mm/h

336. **Which of the following tests is used to diagnose rheumatoid arthritis?**

- a) Rheumatoid factor (RF)
- b) Anti-citrullinated protein antibodies (ACPA)
- c) Erythrocyte sedimentation rate (ESR)
- d) All of the above

Answer: d) All of the above

337. **Which of the following tests is used to assess blood oxygen levels?**

- a) Arterial blood gas (ABG)
- b) Pulse oximetry
- c) Both a and b
- d) Chest X-ray

Answer: c) Both a and b

338. **Which of the following is used to detect genetic mutations in cystic fibrosis?**

- a) Sweat chloride test
- b) DNA testing for CFTR mutations
- c) Chest X-ray

- d) All of the above

Answer: b) DNA testing for CFTR mutations

339. **Which of the following is the most common cause of anemia in developing countries?**

- a) Iron deficiency
- b) Vitamin B12 deficiency
- c) Folate deficiency
- d) Sickle cell disease

Answer: a) Iron deficiency

340. **Which of the following is used to assess the function of the pancreas?**

- a) Serum amylase
- b) Serum lipase
- c) Fasting blood glucose
- d) All of the above

Answer: d) All of the above

341. **Which of the following tests is used to assess lung function?**

- a) Chest X-ray
- b) Arterial blood gases (ABG)
- c) Pulmonary function tests (PFTs)
- d) All of the above

Answer: d) All of the above

342. **Which of the following tests is used to monitor anticoagulant therapy?**

- a) Prothrombin time (PT)
- b) International normalized ratio (INR)
- c) Activated partial thromboplastin time (aPTT)
- d) All of the above

Answer: d) All of the above

Let me know if you need more MCQs or help with anything else!

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343. **Which of the following tests is used to detect bacterial infection in blood?**

- a) Blood culture
- b) Complete blood count (CBC)
- c) C-reactive protein (CRP)
- d) Erythrocyte sedimentation rate (ESR)

Answer: a) Blood culture

344. **Which enzyme is primarily elevated in cases of acute pancreatitis?**

- a) Amylase
- b) Lipase
- c) Trypsin
- d) Lactase

Answer: b) Lipase

345. **What is the normal range for red blood cell count in adults?**

- a) 3.8-5.2 million/ μ L
- b) 4.5-5.9 million/ μ L
- c) 5.0-6.0 million/ μ L
- d) 6.0-7.0 million/ μ L

Answer: b) 4.5-5.9 million/ μ L

346. **Which of the following is used to measure the blood's ability to clot?**

- a) Hemoglobin level
- b) Prothrombin time (PT)
- c) Blood urea nitrogen (BUN)
- d) Serum albumin

Answer: b) Prothrombin time (PT)

347. **Which test is used to diagnose diabetes?**

- a) Fasting blood glucose
- b) Oral glucose tolerance test
- c) Hemoglobin A1c
- d) All of the above

Answer: d) All of the above

348. **What is the normal range for platelet count in adults?**

- a) 150,000-450,000/ μ L
- b) 200,000-400,000/ μ L
- c) 250,000-500,000/ μ L
- d) 100,000-300,000/ μ L

Answer: a) 150,000-450,000/ μ L

349. **Which of the following tests is commonly used to assess the function of the liver?**

- a) Alkaline phosphatase (ALP)
- b) Aspartate transaminase (AST)
- c) Alanine transaminase (ALT)
- d) All of the above

Answer: d) All of the above

350. **Which of the following is a marker for prostate cancer?**

- a) CEA
- b) PSA
- c) AFP
- d) HCG

Answer: b) PSA

351. **Which of the following is used to measure the levels of thyroid hormones?**

- a) TSH (Thyroid Stimulating Hormone)
- b) T3 (Triiodothyronine)
- c) T4 (Thyroxine)
- d) All of the above

Answer: d) All of the above

352. **Which of the following tests is used to monitor patients on warfarin therapy?**

- a) International normalized ratio (INR)
- b) Activated partial thromboplastin time (aPTT)
- c) Prothrombin time (PT)
- d) All of the above

Answer: d) All of the above

353. **What is the most commonly tested sample type for microbial culture?**

- a) Urine
- b) Blood

- c) Sputum
- d) All of the above

Answer: d) All of the above

354. **What is the normal range for serum sodium in adults?**

- a) 135-145 mEq/L
- b) 120-130 mEq/L
- c) 145-155 mEq/L
- d) 155-165 mEq/L

Answer: a) 135-145 mEq/L

355. **Which of the following tests is used to assess renal function?**

- a) Serum creatinine
- b) Blood urea nitrogen (BUN)
- c) Glomerular filtration rate (GFR)
- d) All of the above

Answer: d) All of the above

356. **What is the normal range for blood pH in adults?**

- a) 7.35-7.45
- b) 6.35-6.45
- c) 7.00-7.20
- d) 7.50-7.60

Answer: a) 7.35-7.45

357. **Which of the following is used to assess the function of the parathyroid gland?**

- a) Serum calcium
- b) Serum phosphate
- c) Parathyroid hormone (PTH)
- d) All of the above

Answer: d) All of the above

358. **Which of the following is a test for liver disease that measures the amount of bile in the blood?**

- a) Serum albumin
- b) Bilirubin test
- c) Alkaline phosphatase (ALP)
- d) All of the above

Answer: b) Bilirubin test

359. **Which of the following tests is used to diagnose HIV infection?**

- a) ELISA test
- b) Western blot test
- c) PCR test
- d) All of the above

Answer: d) All of the above

360. **Which of the following is used to assess lung function?**

- a) Arterial blood gases (ABG)
- b) Pulmonary function tests (PFTs)
- c) Chest X-ray
- d) All of the above

Answer: d) All of the above

361. **What is the normal range for serum glucose in fasting adults?**

- a) 70-100 mg/dL
- b) 80-120 mg/dL
- c) 90-130 mg/dL
- d) 100-150 mg/dL

Answer: a) 70-100 mg/dL

362. **Which of the following is a test for the diagnosis of anemia?**

- a) Hemoglobin level
- b) Hematocrit
- c) Reticulocyte count
- d) All of the above

Answer: d) All of the above

363. **What is the primary test used to evaluate lipid levels in the blood?**

- a) Serum cholesterol
- b) Triglyceride levels
- c) Lipoprotein levels
- d) All of the above

Answer: d) All of the above

364. **Which of the following is used to detect the presence of hepatitis virus?**

- a) Hepatitis B surface antigen (HBsAg)
- b) Hepatitis C antibody
- c) Hepatitis D antigen

d) All of the above

Answer: d) All of the above

365. **Which of the following tests is used to diagnose malaria?**

- a) Blood smear
- b) PCR test
- c) Rapid antigen test
- d) All of the above

Answer: d) All of the above

366. **What is the normal range for total bilirubin in adults?**

- a) 0.1-1.2 mg/dL
- b) 1.2-2.0 mg/dL
- c) 2.0-3.0 mg/dL
- d) 3.0-4.0 mg/dL

Answer: a) 0.1-1.2 mg/dL

367. **Which of the following is used to monitor the progression of HIV infection?**

- a) CD4 count
- b) HIV RNA levels
- c) Both a and b
- d) Chest X-ray

Answer: c) Both a and b

368. **Which of the following is used to diagnose tuberculosis?**

- a) Tuberculin skin test
- b) Sputum culture for Mycobacterium tuberculosis
- c) Chest X-ray
- d) All of the above

Answer: d) All of the above

369. **What is the normal range for hemoglobin in men?**

- a) 13.5-17.5 g/dL
- b) 12.5-16.5 g/dL
- c) 11.5-15.5 g/dL
- d) 10.5-14.5 g/dL

Answer: a) 13.5-17.5 g/dL

370. **Which of the following is a common test for diagnosing cystic fibrosis?**

a) Sweat chloride test

b) Genetic testing for CFTR mutations

c) Both a and b

d) Chest X-ray

Answer: c) Both a and b

371. **Which of the following is the most common cause of jaundice in neonates?**

a) Neonatal jaundice

b) Hemolytic anemia

c) Hepatitis

d) Cirrhosis

Answer: a) Neonatal jaundice

372. **What is the normal range for hemoglobin in women?**

a) 12.0-15.5 g/dL

b) 11.5-14.5 g/dL

c) 10.5-14.0 g/dL

d) 14.0-18.0 g/dL

Answer: a) 12.0-15.5 g/dL

373. **Which of the following tests is used to detect vitamin B12 deficiency?**

a) Serum vitamin B12 levels

b) Methylmalonic acid test

c) Both a and b

d) Chest X-ray

Answer: c) Both a and b

374. **Which of the following tests is used to assess kidney function?**

a) Serum creatinine

b) Urine albumin-to-creatinine ratio

c) Glomerular filtration rate (GFR)

d) All of the above

Answer: d) All of the above

375. **Which of the following tests is used to detect bacterial infections in urine?**

a) Urine culture

b) Urine dipstick test

c) Both a and b

d) Urine microscopy

Answer: c) Both a and b

Let me know if you need further assistance or more MCQs!

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376. Which of the following is used to monitor anticoagulation therapy?

- a) Prothrombin time (PT)
- b) International normalized ratio (INR)
- c) Activated partial thromboplastin time (aPTT)
- d) All of the above

Answer: d) All of the above

377. What is the primary function of the white blood cells?

- a) Oxygen transport
- b) Clotting
- c) Immune defense
- d) Hormone production

Answer: c) Immune defense

378. Which test is used to detect iron deficiency anemia?

- a) Serum ferritin
- b) Serum iron
- c) Total iron-binding capacity (TIBC)
- d) All of the above

Answer: d) All of the above

379. Which test is used to evaluate the function of the pancreas?

- a) Blood glucose
- b) Serum amylase
- c) Serum lipase

d) All of the above

Answer: d) All of the above

380. Which of the following is elevated in acute myocardial infarction?

- a) Creatine kinase (CK)
- b) Troponins
- c) Lactate dehydrogenase (LDH)
- d) All of the above

Answer: d) All of the above

381. What is the normal range for serum potassium levels?

- a) 3.5-5.0 mEq/L
- b) 2.5-3.5 mEq/L
- c) 4.0-6.0 mEq/L
- d) 5.0-6.0 mEq/L

Answer: a) 3.5-5.0 mEq/L

382. Which of the following is a marker for liver cell injury?

- a) Alanine aminotransferase (ALT)
- b) Aspartate aminotransferase (AST)
- c) Both a and b
- d) Alkaline phosphatase (ALP)

Answer: c) Both a and b

383. Which test is used to assess the level of red blood cell production?

- a) Reticulocyte count
- b) Hemoglobin level
- c) Hematocrit
- d) Platelet count

Answer: a) Reticulocyte count

384. Which of the following tests is used to detect antibodies to HIV?

- a) ELISA
- b) Western blot
- c) Rapid antibody test
- d) All of the above

Answer: d) All of the above

385. What is the normal range for total cholesterol in adults?

- a) 150-200 mg/dL

- b) 200-250 mg/dL
 - c) 250-300 mg/dL
 - d) 300-350 mg/dL
- Answer:** a) 150-200 mg/dL

386. **Which of the following is used to measure kidney function?**

- a) Blood urea nitrogen (BUN)
- b) Serum creatinine
- c) Glomerular filtration rate (GFR)
- d) All of the above

Answer: d) All of the above

387. **Which of the following tests is used to monitor the function of the thyroid gland?**

- a) TSH
- b) T3
- c) T4
- d) All of the above

Answer: d) All of the above

388. **What is the normal range for hemoglobin in children?**

- a) 10-14 g/dL
- b) 11-15 g/dL
- c) 12-16 g/dL
- d) 13-17 g/dL

Answer: b) 11-15 g/dL

389. **Which of the following is used to measure the body's acid-base balance?**

- a) Arterial blood gases (ABG)
- b) Serum bicarbonate
- c) Serum pH
- d) All of the above

Answer: d) All of the above

390. **What is the most common cause of secondary polycythemia?**

- a) Smoking
- b) Chronic hypoxia
- c) Renal tumors
- d) Dehydration

Answer: b) Chronic hypoxia

391. **Which of the following is an important test in the diagnosis of diabetes mellitus?**

- a) Fasting blood glucose
- b) Oral glucose tolerance test
- c) Hemoglobin A1c
- d) All of the above

Answer: d) All of the above

392. **Which of the following tests is used to assess liver function?**

- a) Serum albumin
- b) Bilirubin levels
- c) Liver enzymes (ALT, AST)
- d) All of the above

Answer: d) All of the above

393. **Which of the following tests is used for the diagnosis of gout?**

- a) Serum uric acid
- b) Synovial fluid analysis
- c) X-ray of joints
- d) All of the above

Answer: d) All of the above

394. **Which of the following is a test for clotting disorders?**

- a) Prothrombin time (PT)
- b) Activated partial thromboplastin time (aPTT)
- c) International normalized ratio (INR)
- d) All of the above

Answer: d) All of the above

395. **Which of the following tests is used to monitor warfarin therapy?**

- a) Prothrombin time (PT)
- b) International normalized ratio (INR)
- c) Both a and b
- d) Activated partial thromboplastin time (aPTT)

Answer: c) Both a and b

396. **Which test is used to diagnose tuberculosis (TB)?**

- a) Chest X-ray

- b) Tuberculin skin test (TST)
 - c) Sputum smear for acid-fast bacilli (AFB)
 - d) All of the above
- Answer:** d) All of the above

397. **What is the normal range for total white blood cell count (WBC)?**

- a) 4,000-11,000/ μ L
- b) 5,000-12,000/ μ L
- c) 6,000-13,000/ μ L
- d) 7,000-14,000/ μ L

Answer: a) 4,000-11,000/ μ L

398. **Which of the following is used to diagnose bacterial infections?**

- a) Blood culture
- b) Urine culture
- c) Sputum culture
- d) All of the above

Answer: d) All of the above

399. **Which test is used to evaluate the function of the kidneys?**

- a) Urine albumin-to-creatinine ratio
- b) Serum creatinine
- c) Glomerular filtration rate (GFR)
- d) All of the above

Answer: d) All of the above

400. **Which of the following is used to test for the presence of rheumatoid arthritis?**

- a) Rheumatoid factor (RF)
- b) Anti-citrullinated protein antibody (ACPA)
- c) Both a and b
- d) Complete blood count (CBC)

Answer: c) Both a and b

401. **Which of the following tests is used to evaluate the function of the heart?**

- a) Serum troponins
- b) Electrocardiogram (ECG)
- c) Cardiac biomarkers
- d) All of the above

Answer: d) All of the above

402. **Which of the following tests is used to assess the function of the lungs?**

- a) Arterial blood gas (ABG)
- b) Chest X-ray
- c) Pulmonary function tests (PFTs)
- d) All of the above

Answer: d) All of the above

403. **What is the normal range for serum calcium in adults?**

- a) 8.5-10.5 mg/dL
- b) 9.0-11.0 mg/dL
- c) 10.0-12.0 mg/dL
- d) 11.0-13.0 mg/dL

Answer: a) 8.5-10.5 mg/dL

404. **Which of the following is used to monitor blood clotting?**

- a) Prothrombin time (PT)
- b) International normalized ratio (INR)
- c) Activated partial thromboplastin time (aPTT)
- d) All of the above

Answer: d) All of the above

405. **Which of the following tests is used to evaluate the presence of tuberculosis?**

- a) Chest X-ray
- b) Tuberculin skin test (TST)
- c) Sputum culture
- d) All of the above

Answer: d) All of the above

406. **Which of the following is a test used to detect thyroid dysfunction?**

- a) Thyroid stimulating hormone (TSH)
- b) Free T3 and Free T4
- c) Thyroid antibodies
- d) All of the above

Answer: d) All of the above

407. **What is the normal range for platelet count in adults?**

- a) 150,000-450,000/ μ L
- b) 100,000-300,000/ μ L
- c) 200,000-500,000/ μ L

d) 50,000-150,000/ μ L

Answer: a) 150,000-450,000/ μ L

408. **Which of the following tests is used to detect liver disease?**

- a) Alanine aminotransferase (ALT)
- b) Aspartate aminotransferase (AST)
- c) Bilirubin
- d) All of the above

Answer: d) All of the above

Let me know if you need further assistance!

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Here are MCQs for your laboratory medicine preparation:

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409. **Which of the following is a key feature of hemolytic anemia?**

- a) Decreased red blood cell count
- b) Increased white blood cell count
- c) Increased reticulocyte count
- d) Decreased platelets

Answer: c) Increased reticulocyte count

410. **What is the most common cause of acute liver failure?**

- a) Viral hepatitis
- b) Alcohol abuse
- c) Drug-induced liver injury
- d) Fatty liver disease

Answer: c) Drug-induced liver injury

411. **Which test is used to detect malaria?**

- a) Blood smear for Plasmodium
- b) Serology for Plasmodium
- c) PCR for Plasmodium DNA

d) All of the above

Answer: d) All of the above

412. **Which is the first-line screening test for prostate cancer?**

- a) PSA (Prostate-specific antigen)
- b) DRE (Digital rectal examination)
- c) MRI
- d) Biopsy

Answer: a) PSA (Prostate-specific antigen)

413. **What is the most common cause of iron deficiency anemia?**

- a) Poor diet
- b) Chronic blood loss
- c) Malabsorption
- d) Inherited disorders

Answer: b) Chronic blood loss

414. **Which of the following is used to diagnose vitamin B12 deficiency?**

- a) Serum B12 levels
- b) Methylmalonic acid (MMA)
- c) Homocysteine levels
- d) All of the above

Answer: d) All of the above

415. **What is the most common cause of acute pancreatitis?**

- a) Gallstones
- b) Alcohol consumption
- c) Hyperlipidemia
- d) All of the above

Answer: d) All of the above

416. **Which of the following is a marker for acute myocardial infarction?**

- a) Troponin
- b) Creatine kinase (CK-MB)
- c) Myoglobin
- d) All of the above

Answer: d) All of the above

417. **Which of the following is measured in a Complete Blood Count (CBC)?**

- a) Hemoglobin

- b) Hematocrit
 - c) White blood cell count
 - d) All of the above
- Answer:** d) All of the above

418. **Which of the following is the most common cause of hypercalcemia?**

- a) Hyperparathyroidism
- b) Malignancy
- c) Vitamin D toxicity
- d) All of the above

Answer: d) All of the above

419. **Which test is used to measure liver function?**

- a) Serum bilirubin
- b) Serum albumin
- c) Alkaline phosphatase
- d) All of the above

Answer: d) All of the above

420. **Which of the following is used to assess bone marrow function?**

- a) Reticulocyte count
- b) Bone marrow biopsy
- c) Blood culture
- d) Complete blood count (CBC)

Answer: b) Bone marrow biopsy

421. **Which test is used to evaluate the coagulation cascade?**

- a) Prothrombin time (PT)
- b) Activated partial thromboplastin time (aPTT)
- c) Bleeding time
- d) All of the above

Answer: d) All of the above

422. **Which of the following is a common complication of diabetes mellitus?**

- a) Retinopathy
- b) Neuropathy
- c) Nephropathy
- d) All of the above

Answer: d) All of the above

423. **Which test is used for the diagnosis of systemic lupus erythematosus (SLE)?**

- a) Antinuclear antibody (ANA)
- b) Anti-dsDNA
- c) Complement levels (C3, C4)
- d) All of the above

Answer: d) All of the above

424. **What is the most common cause of hyperthyroidism?**

- a) Graves' disease
- b) Toxic multinodular goiter
- c) Thyroiditis
- d) All of the above

Answer: a) Graves' disease

425. **Which of the following is used to measure kidney function?**

- a) Serum creatinine
- b) Blood urea nitrogen (BUN)
- c) Glomerular filtration rate (GFR)
- d) All of the above

Answer: d) All of the above

426. **Which of the following is used to monitor long-term blood glucose control?**

- a) Fasting blood glucose
- b) Oral glucose tolerance test
- c) Hemoglobin A1c
- d) All of the above

Answer: c) Hemoglobin A1c

427. **What is the normal range for serum sodium levels?**

- a) 135-145 mEq/L
- b) 125-135 mEq/L
- c) 145-155 mEq/L
- d) 130-140 mEq/L

Answer: a) 135-145 mEq/L

428. **Which of the following is a test for the diagnosis of tuberculosis?**

- a) Sputum smear for acid-fast bacilli (AFB)
- b) Chest X-ray
- c) Tuberculin skin test

d) All of the above

Answer: d) All of the above

429. **Which test is used to monitor anticoagulation therapy with warfarin?**

- a) Prothrombin time (PT)
- b) International normalized ratio (INR)
- c) Activated partial thromboplastin time (aPTT)
- d) All of the above

Answer: b) International normalized ratio (INR)

430. **Which of the following is a type of granulocyte?**

- a) Neutrophil
- b) Eosinophil
- c) Basophil
- d) All of the above

Answer: d) All of the above

431. **Which of the following tests is used for monitoring kidney function?**

- a) Serum creatinine
- b) Urine albumin-to-creatinine ratio
- c) Glomerular filtration rate (GFR)
- d) All of the above

Answer: d) All of the above

432. **Which of the following is associated with the presence of eosinophils in a blood sample?**

- a) Allergy
- b) Parasitic infections
- c) Asthma
- d) All of the above

Answer: d) All of the above

433. **Which of the following tests is used to diagnose HIV?**

- a) HIV RNA PCR
- b) ELISA
- c) Western blot
- d) All of the above

Answer: d) All of the above

434. **What is the normal range for blood pH?**

- a) 7.35-7.45
- b) 7.25-7.35
- c) 7.45-7.55
- d) 7.00-7.30

Answer: a) 7.35-7.45

435. **Which of the following tests is used to detect bacterial infections?**

- a) Blood culture
- b) Urine culture
- c) Sputum culture
- d) All of the above

Answer: d) All of the above

436. **Which of the following is used to assess the oxygen-carrying capacity of blood?**

- a) Hemoglobin concentration
- b) Hematocrit
- c) Red blood cell count
- d) All of the above

Answer: d) All of the above

437. **Which test is used to evaluate liver function in a patient with jaundice?**

- a) Serum bilirubin
- b) ALT (Alanine aminotransferase)
- c) AST (Aspartate aminotransferase)
- d) All of the above

Answer: d) All of the above

438. **Which of the following is the most common cause of anemia in adults?**

- a) Iron deficiency
- b) Vitamin B12 deficiency
- c) Folate deficiency
- d) Aplastic anemia

Answer: a) Iron deficiency

439. **Which of the following tests is used to monitor cholesterol levels?**

- a) Total cholesterol
- b) Low-density lipoprotein (LDL)
- c) High-density lipoprotein (HDL)

d) All of the above

Answer: d) All of the above

440. **What is the most commonly used method for blood glucose measurement?**

- a) Glucometer
- b) Glucose oxidase method
- c) Hexokinase method
- d) Both b and c

Answer: d) Both b and c

Let me know if you need more MCQs!

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441. **Which of the following is a characteristic of nephrotic syndrome?**

- a) Proteinuria
- b) Hematuria
- c) Hypercalcemia
- d) Hyperkalemia

Answer: a) Proteinuria

442. **Which of the following tests is used to monitor liver function in hepatitis?**

- a) ALT (Alanine aminotransferase)
- b) AST (Aspartate aminotransferase)
- c) Serum bilirubin
- d) All of the above

Answer: d) All of the above

443. **Which test is used to diagnose rheumatoid arthritis?**

- a) Rheumatoid factor (RF)
- b) Anti-cyclic citrullinated peptide (anti-

CCP)

c) Erythrocyte sedimentation rate (ESR)

d) All of the above

Answer: d) All of the above

444. **Which of the following is a marker for hepatitis B infection?**

- a) Hepatitis B surface antigen (HBsAg)
- b) Hepatitis B core antibody (anti-HBc)
- c) Hepatitis B surface antibody (anti-HBs)
- d) All of the above

Answer: a) Hepatitis B surface antigen (HBsAg)

445. **Which of the following is commonly associated with low potassium levels (hypokalemia)?**

- a) Diuretics
- b) Vomiting
- c) Diarrhea
- d) All of the above

Answer: d) All of the above

446. **Which of the following is used to detect the presence of rheumatoid arthritis?**

- a) CRP (C-reactive protein)
- b) ANA (Antinuclear antibody)
- c) ESR (Erythrocyte sedimentation rate)
- d) All of the above

Answer: d) All of the above

447. **Which of the following is a condition characterized by the accumulation of fluid in the pleural space?**

- a) Pneumothorax
- b) Pleural effusion
- c) Pulmonary embolism
- d) Emphysema

Answer: b) Pleural effusion

448. **Which of the following is an example of a type I hypersensitivity reaction?**

- a) Asthma
- b) Tuberculosis
- c) Rheumatoid arthritis

d) Systemic lupus erythematosus

Answer: a) Asthma

449. **Which test is commonly used for the diagnosis of hepatitis C?**

- a) Hepatitis C antibody (anti-HCV)
- b) Hepatitis C RNA PCR
- c) Hepatitis C antigen
- d) All of the above

Answer: d) All of the above

450. **Which of the following is used to measure the kidney's filtration ability?**

- a) Serum creatinine
- b) Glomerular filtration rate (GFR)
- c) Urine specific gravity
- d) All of the above

Answer: b) Glomerular filtration rate (GFR)

451. **Which of the following is a common cause of secondary hypertension?**

- a) Hyperaldosteronism
- b) Pheochromocytoma
- c) Cushing's syndrome
- d) All of the above

Answer: d) All of the above

452. **Which of the following is a tumor marker for ovarian cancer?**

- a) CA 125
- b) PSA
- c) CEA
- d) AFP

Answer: a) CA 125

453. **Which test is used for the diagnosis of peptic ulcer disease?**

- a) Helicobacter pylori antigen test
- b) Urea breath test
- c) Endoscopy
- d) All of the above

Answer: d) All of the above

454. **What is the normal range for serum potassium levels?**

- a) 3.5-5.0 mEq/L

b) 2.5-4.5 mEq/L

c) 4.0-6.0 mEq/L

d) 3.0-5.5 mEq/L

Answer: a) 3.5-5.0 mEq/L

455. **Which of the following is a test for diagnosing diabetic ketoacidosis?**

- a) Blood glucose level
- b) Arterial blood gas (ABG)
- c) Serum ketones
- d) All of the above

Answer: d) All of the above

456. **Which of the following is associated with primary polycythemia (polycythemia vera)?**

- a) Increased red blood cell mass
- b) Increased white blood cell count
- c) Increased platelet count
- d) All of the above

Answer: d) All of the above

457. **Which of the following tests is used to detect the presence of protein in urine?**

- a) Urine dipstick test
- b) 24-hour urine protein collection
- c) Urine protein-to-creatinine ratio
- d) All of the above

Answer: d) All of the above

458. **Which of the following is used to measure the severity of anemia?**

- a) Hemoglobin concentration
- b) Hematocrit value
- c) Mean corpuscular volume (MCV)
- d) All of the above

Answer: d) All of the above

459. **Which of the following is used to monitor the treatment of hyperlipidemia?**

- a) LDL cholesterol
- b) HDL cholesterol
- c) Total cholesterol
- d) All of the above

Answer: d) All of the above

460. Which of the following is used to assess liver function in acute hepatitis?

- a) ALT
- b) AST
- c) Serum bilirubin
- d) All of the above

Answer: d) All of the above

461. Which of the following is associated with a low white blood cell count (leukopenia)?

- a) Viral infections
- b) Chemotherapy
- c) Autoimmune diseases
- d) All of the above

Answer: d) All of the above

462. Which of the following is used to diagnose iron deficiency anemia?

- a) Serum ferritin
- b) Serum iron
- c) Total iron-binding capacity (TIBC)
- d) All of the above

Answer: d) All of the above

463. Which of the following is a common cause of hyperbilirubinemia?

- a) Liver disease
- b) Hemolysis
- c) Bile duct obstruction
- d) All of the above

Answer: d) All of the above

464. Which of the following is used to diagnose tuberculosis?

- a) Mantoux test (PPD)
- b) Chest X-ray
- c) Sputum culture
- d) All of the above

Answer: d) All of the above

465. Which of the following tests is used to monitor blood clotting during warfarin therapy?

- a) Prothrombin time (PT)
- b) International normalized ratio (INR)

c) Activated partial thromboplastin time (aPTT)

d) All of the above

Answer: b) International normalized ratio (INR)

466. Which of the following is a common cause of hypoglycemia?

- a) Insulin overdose
- b) Fasting
- c) Liver disease
- d) All of the above

Answer: d) All of the above

467. Which of the following tests is used to diagnose syphilis?

- a) VDRL (Venereal Disease Research Laboratory) test
- b) RPR (Rapid Plasma Reagin) test
- c) FTA-ABS (Fluorescent treponemal antibody absorption) test
- d) All of the above

Answer: d) All of the above

468. What is the normal range for serum calcium levels?

- a) 8.5-10.5 mg/dL
- b) 9.0-11.0 mg/dL
- c) 10.0-12.0 mg/dL
- d) 7.5-9.5 mg/dL

Answer: a) 8.5-10.5 mg/dL

469. Which of the following is a marker for colorectal cancer?

- a) Carcinoembryonic antigen (CEA)
- b) CA 19-9
- c) CA 125
- d) AFP

Answer: a) Carcinoembryonic antigen (CEA)

470. Which of the following is a common cause of hyperuricemia?

- a) Gout
- b) Chronic kidney disease
- c) Excessive alcohol consumption

d) All of the above

Answer: d) All of the above

471. **Which of the following is used to measure kidney function?**

- a) Serum creatinine
- b) Blood urea nitrogen (BUN)
- c) Glomerular filtration rate (GFR)
- d) All of the above

Answer: d) All of the above

472. **Which of the following is a complication of untreated hypertension?**

- a) Stroke
- b) Coronary artery disease
- c) Chronic kidney disease
- d) All of the above

Answer: d) All of the above

473. **Which of the following tests is used to monitor thyroid function?**

- a) Serum TSH (Thyroid-stimulating hormone)
- b) Serum T3
- c) Serum T4
- d) All of the above

Answer: d) All of the above

474. **Which of the following is used to monitor blood sugar control in diabetic patients?**

- a) Fasting blood glucose
- b) HbA1c
- c) Oral glucose tolerance test
- d) All of the above

Answer: d) All of the above

475. **Which of the following is the primary cause of liver cirrhosis?**

- a) Chronic alcohol consumption
- b) Chronic viral hepatitis
- c) Non-alcoholic fatty liver disease
- d) All of the above

Answer: d) All of the above

Let me know if you need more MCQs!

Prepare: Bijay kumar Mahato

Here are MCQs for your laboratory medicine preparation:

Prepare: Bijay kumar Mahato(Part 15)

476. **Which of the following is used to diagnose diabetes mellitus?**

- a) Fasting blood glucose test
- b) Oral glucose tolerance test (OGTT)
- c) HbA1c
- d) All of the above

Answer: d) All of the above

477. **Which of the following conditions can be diagnosed by elevated levels of troponins?**

- a) Myocardial infarction
- b) Stroke
- c) Pulmonary embolism
- d) Renal failure

Answer: a) Myocardial infarction

478. **Which of the following is the most commonly used test for blood clotting?**

- a) Prothrombin time (PT)
- b) Activated partial thromboplastin time (aPTT)
- c) INR (International Normalized Ratio)
- d) Fibrinogen

Answer: a) Prothrombin time (PT)

479. **Which of the following laboratory tests is most commonly used to evaluate kidney function?**

- a) Serum creatinine
- b) Blood urea nitrogen (BUN)
- c) Glomerular filtration rate (GFR)

d) All of the above

Answer: d) All of the above

480. **Which of the following is a major laboratory finding in acute pancreatitis?**

- a) Elevated serum amylase and lipase
- b) Decreased serum glucose
- c) Elevated serum calcium
- d) Increased hematocrit

Answer: a) Elevated serum amylase and lipase

481. **Which of the following is the most reliable marker for diagnosing bacterial infection?**

- a) C-reactive protein (CRP)
- b) Procalcitonin
- c) Erythrocyte sedimentation rate (ESR)
- d) Lactate dehydrogenase (LDH)

Answer: b) Procalcitonin

482. **Which of the following tests is used to diagnose vitamin B12 deficiency?**

- a) Serum B12 levels
- b) Serum folate levels
- c) Methylmalonic acid (MMA) test
- d) All of the above

Answer: d) All of the above

483. **Which of the following is a condition where a person's red blood cells are destroyed more rapidly than they can be produced?**

- a) Iron deficiency anemia
- b) Hemolytic anemia
- c) Sickle cell anemia
- d) Aplastic anemia

Answer: b) Hemolytic anemia

484. **Which test is used to determine kidney stones?**

- a) Ultrasound
- b) X-ray of the abdomen
- c) CT scan
- d) All of the above

Answer: d) All of the above

485. **Which of the following is associated with a decreased red blood cell count?**

- a) Anemia
- b) Polycythemia
- c) Leukemia
- d) Thrombocytosis

Answer: a) Anemia

486. **Which of the following is a common cause of hyponatremia?**

- a) Diuretic use
- b) Dehydration
- c) Chronic kidney disease
- d) All of the above

Answer: d) All of the above

487. **Which of the following is an indication for performing an ABG (arterial blood gas) test?**

- a) Respiratory distress
- b) Severe metabolic acidosis
- c) Monitoring oxygenation status
- d) All of the above

Answer: d) All of the above

488. **Which of the following tests is used to diagnose lupus (Systemic Lupus Erythematosus)?**

- a) Antinuclear antibody (ANA) test
- b) Anti-dsDNA test
- c) Complement levels
- d) All of the above

Answer: d) All of the above

489. **Which of the following is the most common cause of secondary polycythemia?**

- a) Chronic hypoxia
- b) Bone marrow disorder
- c) Dehydration
- d) Smoking

Answer: a) Chronic hypoxia

490. **Which of the following is commonly elevated in liver cirrhosis?**

- a) Bilirubin
- b) Alkaline phosphatase (ALP)

- c) Aspartate aminotransferase (AST)
- d) All of the above

Answer: d) All of the above

491. **Which of the following is a common test for assessing thyroid function?**

- a) Serum TSH
- b) Serum T3
- c) Serum T4
- d) All of the above

Answer: d) All of the above

492. **Which of the following is a complication of uncontrolled diabetes mellitus?**

- a) Diabetic nephropathy
- b) Diabetic retinopathy
- c) Diabetic neuropathy
- d) All of the above

Answer: d) All of the above

493. **Which of the following is a marker for prostate cancer?**

- a) PSA (Prostate-specific antigen)
- b) CA 125
- c) CA 19-9
- d) AFP (Alpha-fetoprotein)

Answer: a) PSA (Prostate-specific antigen)

494. **Which of the following is used to diagnose iron-deficiency anemia?**

- a) Serum ferritin levels
- b) Total iron-binding capacity (TIBC)
- c) Serum iron levels
- d) All of the above

Answer: d) All of the above

495. **Which of the following tests is used to detect the presence of Helicobacter pylori infection?**

- a) Urea breath test
- b) Stool antigen test
- c) Serological test
- d) All of the above

Answer: d) All of the above

496. **Which of the following tests is used to evaluate the severity of liver damage in patients with hepatitis?**

- a) Alanine aminotransferase (ALT)
- b) Aspartate aminotransferase (AST)
- c) Serum albumin and bilirubin levels
- d) All of the above

Answer: d) All of the above

497. **Which of the following is a risk factor for the development of colorectal cancer?**

- a) Age over 50
- b) Family history of colorectal cancer
- c) Presence of inflammatory bowel disease
- d) All of the above

Answer: d) All of the above

498. **Which of the following tests is used to monitor kidney function in patients with chronic kidney disease?**

- a) Serum creatinine
- b) Blood urea nitrogen (BUN)
- c) Glomerular filtration rate (GFR)
- d) All of the above

Answer: d) All of the above

499. **Which of the following is used to assess lung function in patients with respiratory diseases?**

- a) Pulmonary function tests (PFTs)
- b) Chest X-ray
- c) Arterial blood gas (ABG)
- d) All of the above

Answer: d) All of the above

500. **Which of the following is a common cause of hyperkalemia?**

- a) Kidney failure
- b) Diabetic ketoacidosis
- c) Medications like ACE inhibitors
- d) All of the above

Answer: d) All of the above