TIKRIT UNIVERSITY COLLEGE OF MEDICINE
DEPARTMENT OF BIOCHEMISTRY
COMPARATIVE EXAMINATION IN
***BIOCHEMISTRY* FOR M.Sc.**
STUDENTS, 2025/2026
TIME: 3 HOURS Form(A)

Qualified answer in examination is your way to success

Notes:

1. **Answer all of the following questions.**
2. **The questions are distributed over (14) pages, therefore insure that you have (14) pages.**

Choose the most appropriate answer (100 marks, 1.0 for each one of them)

1. Failure to excrete H at the normal rate is caused by:- --- ------
   a. Ketoacidosis
   b. Alcoholic
   c. Poisoning
   d. Acute and chronic renal failure
   e. Inherited metabolic disease

2. Causes of low anion gap metabolic acidosis included: -----
   a. Diabetic ketoacidosis
   b. renal(chronic kidney failure)
   c. Heart disease.
   d. Methanol
   e. alcoholic ketoacidosis

3. Factors that stimulate calcium absorption -------
   a. Phytates and Oxalates.
   b. High fat diet.
   c. High protein diet
   d. High phosphate content.
   e. High fiber diet.

4. Hypomagnesemia----------
   a. It is uncommon
   b. always due to excessive intake either orally (antacids) or parenterally.
   c. Magnesium intoxication causes hyperactivity of neuromuscular system.
   d. induces decrease in serum calcium by inhibiting PTH secretion, which in turn will have deleterious effects.
   e. Thiazide diuretics is one of the major causes.

5. Leptin ---------
   a. a 6-kDa protein that is expressed in adipocytes,
   b. is an afferent signal that relays the magnitude of the fat stores to the central nervous system,
   c. Insulin inhibit leptin synthesis and secretion
   d. plasma levels non correlate with the adipose tissue mass.

e. With insulin directly regulate against each other

6. In Renal proximal tubular acidosis ----------
   a. Caused by autoimmune disorders.
   b. A accompanied by phosphaturia and glucosuria.
   c. Poor hydrogen ion secretion into urine as a primary defect.
   d. Normal serum potassium.
   e. May caused by genetic disorders.

7. Metabolic alkalosis except ----------
   a. The increase in pH that results from the elevation in (HCO_3^-)
   b. Decrease hypoventilation.
   c. is characterized by coexisting elevations in serum HCO_3^-,
   d. Increased arterial pH.
   e. No change in pCO_2

8. Secondary causes of low plasma high density lipoprotein except -------
   a. Tobacco smoking.
   b. Obesity
   c. Poorly controlled diabetes mellitus
   d. Insulin resistance and metabolic syndrome
   e. Acute kidney disease

9. In Predominant excess of sodium ------
   a. Predominant sodium excess is common.
   b. It is usually caused by appropriate secretion of aldosterone, such as in primary hyperaldosteronism.
   c. sodium retention stimulates the retention of water.
   d. maximum changes in plasma sodium concentration.
   e. Sodium excess cannot be caused by excessive sodium intake.

10. Cystatin C except ----------
   a. Another endogenous substance that can be used as a marker of GFR is plasma.
   b. Its use may alleviate some of the problems associated with creatinine clearance determinations.
   c. It is like other endogenous compounds such as creatinine.
   d. It is not secreted by the renal tubules.
   e. currently this test is not routinely available in most laboratories.

11. Acute kidney injury except --------
   a. This was previously known as acute renal failure.
   b. In adults, oliguria is defined as a urine output of less than 300 mL/day, or less than 10 mL/h.
   c. It usually indicates a low GFR and a rapid decline in renal function
   d. Accompanied with retention of creatinine and nitrogenous waste products.
   e. Oliguria may be caused by many factors

12. Cystine stones except ----------
   a. It is rare.
   b. In normal subjects the concentration of cystine in urine is soluble.
   c. the patient may present with radiolucency renal calculi.
   d. Is more soluble in alkaline than in acidic urine.
   e. the principles of treatment are the same as for uric acid stones.

13. Parathyroid hormone:---- ----
   a. Is a double-chain polypeptide containing 84 residues.

b. Renal clearance from plasma of the physiologically inert C-terminal fragment is faster than that of the N-terminal fragment.
c. The biological actions of PTH include inhibit of osteoclastic bone resorption.
d. Its actions consist increased renal tubular reabsorption of phosphate.
e. It is metabolized by renal, hepatic and bone cells.

14. Calcium-sensing receptor--------
a. is a G protein single receptor.
b. This allows the parathyroid cells and the descending loop of Henle epithelial cells to respond to changes in extracellular calcium.
c. The parathyroid cell surface is poor in CaSR.
d. Allows PTH secretion to be adjusted rapidly depending on the calcium concentration.
e. Defects in the CaSR gene are responsible for various common defects of calcium homeostasis.

15. Primary hyperparathyroidism except -----
a. This is cause by inappropriate secretion of PTH by the parathyroid glands, causing hypercalcaemia.
b. Ectopic parathyroid tumours do also occur.
c. May be associated with other multiple endocrine neoplasias
d. Are diagnose by finding of high plasma calcium, usually with low plasma phosphate concentrations.
e. The incidence increases with age, being most common in elderly male.

16. Vitamin D excess: all true except -----
a. Caused by routine treatment of hypocalcaemia.
b. Increased intestinal calcium absorption may cause dangerous hypercalcaemia.
c. Vitamin D therapy, should always be monitored by frequent estimation of plasma calcium concentrations
d. Vitamin D therapy, should always be monitored by measuring plasma alkaline Phosphatase activity
e. If the cause of hypercalcaemia is obscure, a careful drug history should be taken.

17. Worldwide, the most common vitamin deficiency is that of----
a. Ascorbic acid
b. Folic acid
c. Vitamin A
d. Vitamin D
e. Vit. B12

18. The component of cartilage and cornea is ------
a. Keratosulphate
b. Chondroitin sulphate
c. Cadmium sulphate
d. Antimony sulphate
e. None of the above

19. Tay-Sachs disease results from inherited deficiency of-----
a. Arylsulphatase A
b. Hexosaminidase A
c. Sphingomyelinase
d. Ceramidase
e. Copper

20. The largest apolipoprotein is-------
a. Apo E
b. Apo B-48

c. Apo B-100
d. Apo A-I
e. Apo C1

21. Which of the following tumor markers is most commonly elevated in hepatocellular Carcinoma (HCC)?
a. CA 19-9
b. CEA (Carcinoembryonic antigen)
c. AFP (Alpha-fetoprotein)
d. CA 125
e. Beta-hCG

22. The heme, hematin, and Cytochrome P450 represses the synthesis of the following enzyme thereby reducing heme synthesis.
a. delta-aminolevulinic acid synthase 1
b. Uroporphyrinogen synthase III
c. Protoporphyrinogen oxidase
d. Ferrochelatase
e. All of the above

23. During prolonged fasting, why does the brain switch to utilize ketone bodies?
a. They are more energy-efficient
b. They spare glucose for red blood cells
c. They inhibit fatty acid oxidation
d. They are derived from dietary triglycerides
e. They enhance urea cycle efficiency

24. Which of the following fatty acids requires both mitochondrial and peroxisomal oxidation for complete degradation?
a. Palmitic acid
b. Stearic acid
c. Arachidonic acid
d. Lignoceric acid
e. Myristic acid

25. A patient has a genetic deficiency in fructose 1,6-bisphosphatase. Which of the following biochemical events is most likely impaired?
a. Conversion of lactate to pyruvate in the Cori cycle.
b. Conversion of glucose-6-phosphate to glucose.
c. Regeneration of oxaloacetate from malate.
d. Conversion of fructose 1,6-bisphosphate to fructose 6-phosphate.
e. Synthesis of alanine from pyruvate in skeletal muscle.

26. Why is gluconeogenesis considered an energy-consuming process despite producing glucose?
a. It uses only glycolytic enzymes operating in reverse.
b. It occurs only in mitochondria which lack ATP synthesis.
c. It requires 6 high-energy phosphate bonds per glucose.
d. It is regulated by NADH oxidation in red blood cells.
e. It cannot utilize lactate unless converted to acetyl-CoA.

27. Which of the following statement is correct?
a. In Oxy-Hb formation Fe in haem is converted to ferric form
b. CO_2 combines with haem to form carboxy-Hb
c. Co combines with NH2 group of Hb to form carbaminocompound
d. H2S combines with oxy-Hb to form sulfhaemoglobin
e. Fe in haem remains in ferrous form in methaemoglobin formation

28. The reducing ability of a carbohydrate is due to the presence/or formation of:

a. A free carboxyl groups
b. A free hydroxyl group
c. Enediol formation
d. Presence of a 1-4 linkage
e. Formation of ring structure

29. Which of the following vitamins of not a component of electron transport chain?
a. Nicotinamide
b. Ubiquinone
c. Biotin
d. Riboflavin
e. None of the above

30. Which of the following best describes the function of apolipoprotein A-I?
a. VLDL assembly
b. LDL receptor binding
c. Cholesteryl ester transfer to VLDL
d. Lipoprotein lipase activation
e. Cholesterol esterification via LCAT activation

31. Which of the following laboratory markers is most sensitive to early obstructive biliary disease?
a. AST
b. ALT
c. ALP
d. GGT
e. LDH

32. Which of the following causes a normal anion gap (hyperchloremic) metabolic acidosis?
a. Diarrhea
b. Lactic acidosis
c. Diabetic ketoacidosis
d. Renal failure
e. Methanol poisoning

33. Which of the following is the primary physiological effect of parathyroid hormone (PTH)?
a. Decreases calcium reabsorption in kidneys
b. Increases bone formation
c. Increases calcium absorption from the gastrointestinal tract
d. Decreases phosphate excretion in urine
e. Increases calcium release from bones into the bloodstream

34. Which of the following statements about insulin resistance is true?
a. Insulin resistance typically occurs in muscle cells, leading to increased glucose uptake
b. It is associated with decreased triglyceride synthesis in adipose tissue
c. It results in a compensatory increase in pancreatic insulin secretion
d. It is commonly seen in individuals with type 1 diabetes
e. Insulin resistance is always associated with weight loss

35. Which of these is not a protease that acts in the small intestine?
a. Chymotrypsin
b. Elastase
c. Enteropeptidase
d. Secretin
e. Trypsin

36. Which plasma protein is most negatively charged at physiological pH and contributes

significantly to the anion gap?

a. Fibrinogen
b. Ceruloplasmin
c. Albumin
d. Haptoglobin
e. Transferrin

37. Action of parathormone in the human body

a. decreases blood sodium level
b. increases blood sodium level
c. decreases blood calcium level
d. increases blood calcium level
e. None of the above

38. Which of the following enzymes is deficient in Glycogen Storage Disease Type I (Von Gierke's disease)?

a. Glycogen synthase
b. Phosphofructokinase
c. Pyruvate kinase
d. Glucokinase
e. Glucose-6-phosphatase

39. Which of the following biomarkers is most commonly used for diagnosing acute myocardial infarction (AMI)?

a. Troponin I
b. C-reactive protein (CRP)
c. Brain natriuretic peptide (BNP)
d. Creatine kinase (CK-MB)
e. Lactate dehydrogenase (LDH)

40. Zellweger syndrome pathology is most directly caused by which of the following?

a. Defective acyl-CoA dehydrogenase
b. Overproduction of ω-oxidation intermediates
c. Accumulation of C26–C38 fatty acids in tissues
d. Enhanced catalase activity in mitochondria
e. Unregulated elongation of palmitate in ER

41. In muscle cells, what is the fate of glucose-1-phosphate produced during glycogenolysis?

a. It is converted to glucose
b. It enters glycolysis
c. It is stored as glycogen
d. It is converted to UDP-glucose
e. None of the above

42. A patient presents with elevated levels of alanine and glutamine in the plasma, accompanied by symptoms of hyperammonemia. Which of the following mechanisms is most likely responsible for the accumulation of ammonia in this patient?

a. Defect in the ornithine transcarbamylase (OTC) enzyme
b. Impaired urea cycle function due to a deficiency in fumarase
c. Increased ammonia production through oxidative deamination of branched-chain amino acids
d. A mutation in the enzyme responsible for alanine transaminase (ALT) activity
e. Deficiency in the glutamine synthetase enzyme in muscle cells

43. For urea formation, the correct order of ornithine cycle is. Ornithine _____, _____

a. urinine, arginine

b. arginine, urinine
c. citrulline, arginine
d. arginine, citrulline
e. All of the above

44. Which of the following is not true of the reaction catalyzed by glutamate dehydrogenase?
a. It is similar to transamination in that it involves the coenzyme pyridoxal phosphate (PLP).
b. $NH4^+$ is produced.
c. The enzyme can use either NAD^+ or $NADP^+$ as a cofactor.
d. The enzyme is glutamate-specific, but there action is involve dinoxidizing other amino acids.
e. α-Ketoglutarate is produced from an amino acid.

45. What cancer is CA-125 most associated with?
a. Ovarian cancer
b. Prostate cancer
c. Lung cancer
d. Breast cancer
e. Hepatocellular carcinoma

46. Which of the following doesn't increases urea formation?
a. Thyrotoxicosis
b. Starvations
c. Hypertension
d. Proteins catabolism
e. Hematuria

47. Presence of myoglobin in urine signifies
a. Tubular proteinuria
b. Glomerular proteinuria
c. Postrenal proteinuria
d. Hematuria
e. Overload proteinuria

48. Which enzyme belongs to the 2nd phase of HMP shunt?
a. glucose-6-phosphate dehydrogenase
b. 6-phosphogluconate
c. 6-phosphogluconate dehydrogenase
d. none of the above
e. all of the above

49. Which form of energy is used by the glucose-6-phosphate dehydrogenase enzyme?
a. ATP
b. AMP
c. GTP
d. NADPH
e. All of the above

50. ATP synthesis is powered by
a. Coenzyme motive force
b. cAMP
c. proton gradient
d. GTP hydrolysis
e. All of the above

51. Which of the following enzyme is used for the diagnosis of thiamine deficiency?
a. Transketolase

b. Glucose-6-P dehydrogenase
c. Transaldolase
d. Phosphogluconate dehydrogenase
e. All of the above

52. 3-phosphoglycerate is the precursor for all of the following amino acids, EXCEPT
a. Serine
b. Glycine
c. Alanine
d. Cysteine
e. All of the above

53. Hormones such as insulin & glucagon regulate HMG CoA reductase by a phosphorylation and dephosphorylation process. Phosphorylation of HMG CoA reductase results in decreased enzyme activity. Identify the correct statement from the following:
a. Insulin inhibits kinase that phosphorylates HMG CoA reductase
b. Insulin activates kinase that phosphorylates HMG CoA reductase
c. Insulin activates the phosphatase that removes a phosphate group from HMG CoA reductase
d. Insulin inhibits kinase that phosphorylates HMG CoA reductase
e. All of the above

54. Sterol Regulatory Binding Protein binds to DNA at the sterol regulatory element to increase the expression of HMG CoA reductase, and synthesis of cholesterol. What happens when there is the presence of a high cellular concentration of cholesterol?
a. Increases the proteolytic cleavage, release, and shuttling of SREBP into the nucleus
b. Decreases the proteolytic cleavage and release of SREBP from ER
c. Activates SREBP by inducing the conformational change
d. Inhibit SREBP by competitively binding to DNA binding site of SREBP
e. All of the above

55. Which of the following lipids act as lungs surfactants?
a. Phosphatidylcholine
b. Phosphatidylethanolamine
c. Ceramide
d. Phosphatidylinositol
e. All of the above

56. Tertiary conformation of proteins is maintained by 3 types of bonds namely ionic, hydrogen and _____
a. Sulfide
b. Disulfide
c. Covalent
d. Peptide
e. Glycosidic

57. Which of the following amino acids in myoglobin, a globular protein, is highly likely to be localized within the interior of the molecule?
a. Arginine
b. Valine
c. Aspartic acid
d. Lysine
e. All of the above

58. Hydroxyproline and hydroxylysine are formed by hydroxylation of proline and lysine; the reaction is catalyzed by prolyl and lysyl hydroxylase. Which of the following serve as

coenzyme?

a. Biotin
b. Thiamine
c. Ascorbate
d. Niacin
e. All of the above

59. Which of the following metabolic disturbances would most likely result in the overproduction of ketone bodies?

a. Decreased fatty acid oxidation
b. Increased glucose availability
c. Reduced lipolysis
d. Increased fatty acid mobilization from adipose tissue
e. Elevated pyruvate carboxylase activity

60. For each molecule of glucose, how many times does the TCA cycle proceed?

a. 1
b. 2
c. 3
d. 4
e. 5

61. Which of the following is Growth hormone inhibiting hormone?

a. FSH
b. TRH
c. GHRH
d. Somatostatin
e. None of the above

62. In diabetic ketoacidosis, the excessive formation of ketone bodies is primarily due to:

a. Enhanced glycolysis in peripheral tissues
b. Decreased fatty acid oxidation
c. Insulin resistance leading to excessive lipolysis
d. Increased activity of HMG-CoA reductase
e. Impaired oxidation of pyruvate to acetyl-CoA

63. The enzyme aconitase is responsible for _____

a. polymerization
b. degradation
c. assembly
d. isomerization
e. oxidation

64. If we consider a mole of NADH to be equivalent in energy to 2.5 ATP and a mole of FADH 2 to be equivalent in energy to 1.5 ATP, what is the total number of moles of ATP that could be generated by oxidation of a mole of pyruvic acid via the citric acid cycle?

a. 46
b. 30
c. 23
d. 12.5
e. 8

65. NADH and NADPH are major coenzymes for oxidoreductases. While nearly equivalent in redox potential, the two coenzymes often function in different metabolic actions. In general:

a. NADPH is used mostly in glycolysis
b. NADPH functions with enzymes involved in fermentation
c. NADH is often involved in degradation and NADPH in synthesis

d. NADH is a coenzyme for lipases
e. NADPH is a coenzyme used by barbarians for energy when they lack cereals

66. Which Coenzyme is used in acetylation reaction
a. CoA
b. FMN
c. FAD
d. None of These
e. All of the above

67. Type II glycogen storage disorder is due to deficiency of_____?
a. acid α-glucosidase
b. Alpha galactosidase
c. Muscle phosphorylase
d. Acid Lipase
e. Non of the above

68. This statement concerning the nature of genetic code is inaccurate.
a. universal
b. overlapping
c. commaless
d. triplet
e. All of the above

69. Deficiency of biotin results in decrease in
a. Amino acid synthesis
b. Lipid synthesis
c. Kidney
d. Fatty acid synthesis
e. All of the above

70. Foetal haemoglobin contains
a. Two α and two γ chains
b. Two β and two γ chains
c. Both (A) and (B)
d. None of these
e. All of the above

71. Name the gland, which releases Neurohormone.
a. Hypothalamus
b. Pituitary
c. Thyroid
d. Pancreas
e. Both (B) and (C)

72. Which of the following amino acids is essential in infants and non essential in adults?
a. Lysine
b. Arginine
c. Leucine
d. Tryptophan
e. None of the above

73. Which of the following hormones stimulates the production of pancreatic juice and bicarbonate?
a. Insulin and glucagon
b. Cholecystokinin and secretin
c. Gastrin and insulin
d. Angiotensin and epinephrine
e. None of the above

74. Which of the following is a true statement?
a. Tryptophan and tyrosine are significantly more polar than phenylalanine
b. Leucine is commonly used as an ingredient in the buffers of the SDS page
c. Aspartate is an essential amino acid
d. Lysine is a non-essential amino acid
e. None of the above

75. What metal atom is chelated to the nitrogen atoms of the pyrrole units in heme?
a. Magnesium
b. Zinc
c. Copper
d. Iron
e. None of the above

76. Name the inhibition where end products of biosynthesis pathway inhibit the activity of the first enzyme?
a. Feedback inhibition
b. Feedback repression
c. Allosteric inhibition
d. Competitive inhibition
e. All of the above

77. Lead positioning causes the increase in the accumulation and urinary excretion of coproporphyrin III and ALA in the urine. Which of the following enzymes are inhibited by lead metal?
a. ALA synthase and Protoporphyrin oxidase
b. ALA synthase and Ferrochelatase
c. ALA dehydratase and Protoporphyrin oxidase
d. ALA dehydratase and Ferrochelatase
e. All of the above

78. How many molecules of ALA is required for its condensation to form PBG?
a. 1
b. 2
c. 3
d. 4
e. 5

79. Which hormone is produced by ovary only during pregnancy?
a. Progesterone
b. Chorionic gonadotrophin
c. Relaxin
d. Placental lactogen
e. None of the above

80. Lactate dehydrogenase is an enzyme that may exist in five different forms (isoenzymes), that are different in:
a. KM
b. Regulation
c. mechanism of action
d. subcellular location
e. all of the above

81. Adrenalin, noradrenalin and dopamine are synthesized from:
a. tryptophan
b. tyrosine
c. methionine
d. arginine

e. lysine

82. An international unit of an enzyme is the amount of:
a. enzyme that transforms 1 µmol de substrate per minute per mg de protein
b. substrate that can be transformed per molecule of enzyme per second
c. enzyme that transforms 1 mol of substrate per second
d. enzyme that transforms 1 µmol of substrate per minute
e. enzyme total present in a sample

83. Which of the following property is not shown by isoenzyme?
a. Sigmoidal shaped curve
b. Electrophoretic mobility
c. Kinetic properties
d. Amino acid composition
e. All of the above

84. Carboxypeptidase requires _____ for its activity
a. copper
b. niacin
c. iron
d. Zn
e. None of the above

85. Which of the following hydrolytic enzymes act in low pH?
a. Peroxidases
b. Hydrolases
c. Amylases
d. Proteases
e. All of the above

86. An increase in the osmolality of extracellular compartment will
a. Inhibit ADH secretion
b. Stimulate ADH secretion
c. Cause no change in ADH secretion
d. Stimulate the volume and osmoreceptor and inhibit ADH secretion
e. Increase aldosterone secretion

87. The volume of plasma needed each minute to supply a substance at the rate at which it is excreted in the urine is known as the :
a. diffusion constant of the substance
b. clearance of the substance
c. extraction ratio of the substance
d. tubular mass of the substance
e. filtration rate of the substance .

88. A three years old boy was brought unconscious into emergency room. Blood gases were performed PH 7.26, PCO_2 54 mmHg, HCO_3 38 mmol/l, Base excess +14 mmol/l , this patient demonstrates:
a. Metabolic alkalosis
b. Metabolic acidosis
c. Respiratory acidosis
d. Respiratory alkalosis
e. Compensated metabolic acidosis

89. Noradrenaline: except
a. is not exclusively a product of the adrenal medulla.
b. is broken down to 4-hydroxy 3-methoxymandelic acid.
c. produces generalized vasoconstriction.

d. increases the rate of glycogenolysis.
e. is derived directly from dopamine.

90. The principle actions of insulin include:
a. increased lipolysis in adipose tissue.
b. increased ketogenesis in the liver.
c. increased glucose uptake by muscle and adipose tissue.
d. decreased glycogen synthesis.
e. inhibit protein synthesis.

91. Which of the following is found in patients with prostate carcinoma, but not in patients that only have benign prostatic hyperplasia?
a. Prostate specific antigen (PSA)
b. Prostatic acid phosphatase (PAP)
c. ALT
d. free PSA.
e. AST

92. Which of the following substances will be more concentrated at the end of the proximal tubule than at the beginning of the proximal tubule?
a. Glucose .
b. Creatinine .
c. Sodium .
d. Bicarbonate .
e. Amino acids

93. A diagnosis of hemolytic anemia in an 11-year-old boy would be supported by the following findings:
a. Urinary urobilinogen excretion increased
b. Increased plasma ALP
c. Increased plasma ALT
d. Increased plasma haptoglobin
e. Hypoalbuminemia

94. Liver function tests can vary depending on a number of factors, but which of the following would be LAST likely to occur after obstruction of the common bile duct?
a. Elevation of serum conjugated bilirubin
b. Elevation of serum unconjugated bilirubin
c. Elevation of serum alkaline phosphatase
d. Appearance of bilirubin in urine
e. Decrease of urine urobilinogen

95. Growth hormone (GH) secretion is stimulated by :(except)
a. Starvation.
b. The administration of L-dopa.
c. Hyperglycemia.
d. Exercise.
e. The onset of deep sleep.

96. Excessive citrate in transfused blood can cause which of the following abnormalities?
a. Metabolic alkalosis
b. Metabolic acidosis
c. Respiratory alkalosis
d. Respiratory acidosis
e. Non of the above

97. Chymotrypsin stabilizes the tetrahedral oxyanion transition states of the substrate in the active site. The amino acids important for Oxyanion hole are

a. Amide nitrogen of Histidine57 and Glycine193
b. Amide nitrogen of Histidine57 and aspartate102
c. Carbonyl carbon of Histidine57 and aspartate102
d. Amide nitrogen of serine 195 and aspartate102
e. Amide nitrogen of Glycine193 and Serine195

98. Pepsin is activated through ……..
a. Removal of inhibitory peptide
b. Reducing agent
c. Minerals
d. Allosteric activators
e. Phosphorylation

99. How many stereoisomers of an aldose hexose:
a. 8
b. 32
c. 16
d. 14
e. 4

100. In diabetic ketoacidosis patient , the plasma potassium concentration should be measured .....
a. Before insulin treatment
b. Immediately after insulin treatment
c. After one hour of insulin treatment
d. Not required to be measured
e. Non of the above

With best wishes

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