



Date of issue : Centre :

Sup. Sign. : Seat No. :

ND-2006000101030001-O Seat No. _____

First Year M. B. B. S. Examination

December - 2021

Biochemistry : Paper - I

(New CBME Pattern)

Time : Hours [Total Marks : 20]

Instruction :

Fillup strictly the details of signs on your answer book.

Name of the Examination : First Year M. B. B. S.

Name of the Subject : Biochemistry : Paper - I

Subject Code No. : 2 0 0 6 0 0 0 1 0 1 0 3 0 0 0 1 Nil

Section No. (1, 2, ...) : Nil

Seat No. :

Student's Signature

Section A: MCQ

(20 marks)

Instructions:

1. All questions are compulsory
2. Each MCQ has only one correct answer
3. One mark for correct answer. No negative marking

1 Which of the following correctly describes the composition of the CSF

- a. It has the same osmolarity as blood
- b. It has the same pH as blood
- c. It is more alkaline than blood
- d. It contains higher glucose concentration than blood

2 All of the following are functions of kidney, *Except*:

- a. Detoxification of Alcohol
- b. Formation of 1, 25 DHCC
- c. Excretion of hydrogen ions
- d. Stimulation of Erythropoiesis

3 Parathyroid Hormone (PTH) is involved in:

- a. Activation of Vitamin D
- b. Increases the intestinal absorption of calcium
- c. Decreases the intestinal absorption of calcium
- d. Increases the synthesis of thyroid hormones

4 People with diabetes mellitus are prone to develop cataracts because their elevated blood glucose concentration:

- a. Inhibit gluconeogenesis
- b. Increase glycosylate hemoglobin
- c. Increase glycogen synthesis within the lens
- d. Allow aldose reductase to reduce glucose to sorbitol

5 Facilitated diffusion transport molecules:

- a. Against concentration gradient
- b. With the concentration gradient
- c. Always use energy
- d. Does not require carrier protein

6 Lactic acidosis is seen in the following cases, *EXCEPT*:

- a. Oxidative phosphorylation disorders (Mitochondrial)
- b. Defective metabolism of pyruvate
- c. Excessive ingestion of alcohol
- d. Deficiency of glucose-6-phosphate dehydrogenase

7 In human, vitamin C is not synthesized, because:

- a. Absence of Xylitol reductase
- b. Absence of L-gulonolactone oxidase
- c. Absence of Glucose 6-phosphate dehydrogenase
- d. Absence of Xylulose dehydrogenase

8 Fatty acid synthesis differs from beta oxidation in all, EXCEPT:

- a. Uses NADPH as reducing power
- b. Requires coenzyme A
- c. Catalyzed by multi-enzyme complex
- d. Activated by insulin

9 The plasma sample of 35 years old man after overnight refrigeration showed a creamy layer on top and opalescence below. The condition which is excluded is:

- a. Diabetes mellitus
- b. Alcoholism
- c. Hypothyroidism
- d. Familial hypercholesterolemia

10 All of the following fatty acid synthesized by humans EXCEPT

- a. Palmitoleate
- b. Oleate
- c. Arachidonate
- d. Linoleate

11 Which of the following is rate limiting enzyme in HMP shunt?

- a. Transketolase
- b. Phosphogluconate dehydrogenase
- c. Ribulose 5 phosphate
- d. Glucose 6 phosphate dehydrogenase

12 Which of the following stops respiratory chain?

- a. Unavailability of O_2
- b. Unavailability of ADP
- c. Unavailability of NADH
- d. All of the above

13 Elevated levels of one of the following lipid parameter is associated with pancreatitis:

- a. Total cholesterol
- b. LDL-cholesterol
- c. HDL-cholesterol
- d. Triacylglycerol

14 All the following statements regarding hexokinase and glucokinase are true, EXCEPT

- a. Hexokinase is Less specific than glucokinase
- b. Glucokinase is induced by glucagon
- c. Glucokinase is more in the liver
- d. They differ in their K_m for the substrate

15 Liver can not utilized ketone bodies due to the lack of enzyme

- a. Thiolase
- b. Thiophorase
- c. HMG CoA lyase
- d. Beta hydroxy butyrate dehydrogenase

16 Wilson disease occurs due to defect in which transport protein?

- a. ATP-7A
- b. ATP-7B
- c. ABC-A1
- d. - ABC-C2

17 Earliest indicator of iron deficiency anemia is

- a. S. Ferritin
- b. S. TIBC
- c. S. Iron
- d. S. Transferrin

18 Which glucose transporter is under control of insulin?

- a. GLUT2
- b. GLUT3
- c. GLUT4
- d. GLUT5

19 LDL receptor defect results in the following type of hyperlipidemia

- a. Type I
- b. Type IIA
- c. Type IIB
- d. Type IV

20 Cancer cell derive nutrition from:

- a. Glycolysis
- b. Oxidative phosphorylation
- c. Glycogenolysis
- d. From a fast food