

GENESIS

(Post Graduation Medical Orientation Centre)

Friday Mage Batch-1

Total Number- 100

Pass Mark: 70

Subject: GIT Physiology & Metabolism

Question 31-50 is based on Single answers

Time: 50 Min

Date: 24/01/20

1. Omega 6 fatty acids are

- a) Linoleic acid
- b) Linolenic acid
- c) Oleic acid
- d) Arachidonic acid
- e) Palmitic acid

TFTTF [Ref: ABC Biochemistry/5th/P-63]

2. Transfatty acids

- a) Are unsaturated fatty acids
- b) Are found in plants
- c) Increase plasma LDL- cholesterol level
- d) Are formed during hydrogenation of vegetable oils
- e) Are source of arachidonic acids in the body

TFTTF

3. Following are the sources of ammonia

- a) Purines
- b) Phospholipids
- c) Glycosaminoglycans
- d) Glutamine
- e) Amines

TFTTF [Ref: ABC Biochemistry-5th/P-220]

4. Triacylglycerol rich lipoproteins are

- a) Chylomicron
- b) Low density lipoprotein (LDL)
- c) Very low density lipoprotein (VLDL)
- d) Intermediate density lipoprotein (IDL)
- e) High density lipoprotein (HDL)

TFTTF (Explanation: TAG rich lipo proteins are chylomicron, VLDL & IDL , Cholesterol rich lipoproteins are LDL & HDL. [Ref. abc/4th/ 196]

5. Reactions occurring in mitochondria are

- a) Pentose phosphate pathway
- b) Ketogenesis
- c) Reduction of pyruvate
- d) Fatty acid synthesis
- e) β -oxidation of fatty acids

FTFTT

6. Respiratory chain impairment is associated with

- a) Hypoxic cell injury
- b) Lactic acidosis
- c) Mitochondrial myopathy
- d) Phenyl ketonuria
- e) Essential fructosuria

TTTTF

7. Metabolic fates of pyruvate are

- a) Synthesis of acetyl-CoA
- b) Synthesis of lactic acid
- c) Synthesis of alanine
- d) Synthesis of cholesterol
- e) Synthesis of ketone bodies

TTTTF [Ref: ABC Biochemistry-5th/P-160]

8. Substances synthesized from acetyl CoA include

- a) Ketone body
- b) Pentose sugar
- c) Cholesterol
- d) Phosphatidylcholine
- e) Fatty acid

TFTFT [Ref: ABC Biochemistry-5th/P-173]

9. Hexose monophosphate shunt generates

- a) NADPH
- b) FADH
- c) NADH
- d) GTP
- e) Pentose sugar

TFFFT

10. NADPH is required for

- a) Reductive biosynthesis
- b) Synthesis of nitric oxide
- c) Glycolysis
- d) TCA cycle
- e) Reduction of hydrogen peroxide

TFTFT [Ref: ABC Biochemistry-5th/P-167]

11. Post translational modifications are

- a) Limited proteolysis
- b) Hydroxylation
- c) Splicing
- d) Glycosylation
- e) Excision of 3' poly-A tail

TFTTF [Ref: ABC Biochemistry-5th/P-419,425]

12. Hormone-sensitive lipase is activated by

- a) TSH
- b) ACTH
- c) Nicotinic acid
- d) Prostaglandin E₁
- e) Vasopressin

TTFFT

13. Metabolic fuel for neuron are

- a) Glucose
- b) Acetoacetate
- c) β -hydroxy butyrate
- d) Acetone
- e) Fatty acid

TTTFF [Ref: ABC Biochemistry-5th/P-138]

14. Non-functional plasma enzymes are

- a) Lactate dehydrogenase
- b) Alkaline phosphatase
- c) Prostate specific antigen
- d) Creatine kinase
- e) Troponin

TTFTF

15. Type A lactic acidosis is/are found in

- a) Ethanol poisoning
- b) Mitochondrial dysfunction
- c) Carbon monoxide poisoning
- d) Severe anemia
- e) Acute liver failure

FFTTF

16. Skin changes may result from deficiency of

- a) Zinc
- b) Vitamin D
- c) Vitamin A
- d) Pyridoxine
- e) Fluoride

TTFTF

17. Vitamins that can reduce circulating homocysteine level are

- a) Folic acid
- b) Niacin
- c) Pyridoxine
- d) Thiamine
- e) Methylcobalamine

TTFTT

18. Changes that occur in vitamin A deficiency are

- a) Squamous metaplasia
- b) Toad skin
- c) Peripheral neuropathy
- d) Megaloblastic anaemia
- e) Xerophthalmia

TTFFT

19. Vitamin B₁₂ deficiency

- a) Causes demyelination
- b) Causes microcytic anemia
- c) May cause progressive dementia
- d) May be due to deficiency of gastric intrinsic factor
- e) May degenerate both the ascending tracts of the posterior column

TFTTT [Ref: ABC Biochemistry-5th/P-540, Davidson-23rd/Box-23.33/P-944]

20. Zinc deficiency causes

- a) Skin ulcer
- b) Hypothyroidism
- c) Depressed immune response
- d) Hypo gonadal dwarfism
- e) Peptic ulcer

TFTTF [Ref: ABC Biochemistry-5th/P-516]

21. Factor stimulates gastric emptying are

- a) Fat, CHO, acid in duodenum
- b) Peptide Y
- c) Gastrin
- d) Secretin
- e) CCK

FTTFF

22. Peptides with appetite-suppressing property include

- a) Cholecystokinin
- b) Ghrelin
- c) Glucagon-like peptide 1
- d) Glucagon-like peptide 2
- e) Somatostatin

TFTFT (Davidson 23rd/Box-21.2/P- 772, Ganong P-441)

23. Stimuli that inhibit gastrin secretion are

- a) Presence of acid within the stomach
- b) Glucagon
- c) Somatostatin
- d) Presence of peptides within the lumen
- e) Epinephrine

TTTTF [Davidson-844]

24. At low flow rate saliva in the mouth is

- a) Hypotonic, acidic & rich in K⁺
- b) Hypotonic, alkaline & rich in Na⁺
- c) Hypotonic, acidic & low in Na⁺
- d) Hypotonic acidic & Low in K⁺
- e) Hypertonic, alkaline & rich in K⁺

FFFFF

25. In the stomach

- a) Acetylcholine stimulates the secretion of gastrin
- b) Histamine stimulates the secretion of HCl
- c) Gastrin stimulates the secretion of histamine
- d) Prostaglandin stimulates the secretion of HCl
- e) Acetylcholine stimulates the secretion of HCl

T T T F T [Ref: Davidson-23rd/Box-21.3/P-767]

26. Interminal ileum – absorption occurs

- a) Monosaccharide
- b) Calcium
- c) Bile salts
- d) Bile Salts
- e) Fat

F T T T F

27. Bile

- a) Contains enzymes for digestion of fat
- b) Makes cholesterol water soluble
- c) It is taken up by intestine
- d) Bile pigment contains iron
- e) Becomes alkaline in gall bladder

F T T F T

28. Regarding iron absorption-

- a) Mainly occurs in lower jejunum
- b) Stimulated by phytic acid & phosphate
- c) DMT helps in Fe transport from epithelial cell to blood
- d) Fe²⁺ form is absorbed
- e) Vitamin C inhibits Fe absorption

F F F T F

29. REgarding the swallowing reflex

- a) The palate moves up to close the nasopharynx
- b) The larynx moves up to the inlet
- c) There is contraction of the upper oesophageal sphincter
- d) The vocal cords become loose
- e) The epiglottis has no role

T T F F F

30. Facts of Crohns disease

- a) It is common in our country
- b) It is characterized by skip lesions
- c) Surgery is to be done conservatively
- d) Has many similarities with tuberculosis
- e) Rectum is almost invariably involved

FTFTF [Ref: Davidson-23rd/Box-21.51/P-814]

31. Vitamin B₁₂ is the most chemically complex of all the vitamins. Vitamin B₁₂ absorption depends on

- a) Ca⁺⁺
- b) Fe³⁺
- c) HCl
- d) Intrinsic factor
- e) Transferrin

D (intrinsic factor) 6.14

32. During fasting condition following preferred fuels are correct except

- a) Brain is glucose
- b) Adipose tissue is ketones
- c) Cardiac muscle is fatty acids and ketones
- d) Liver is glucose and amino acid
- e) Erythrocyte is glucose

B

33. Patient with exaggerated plantar response and loss of ankle reflex. What is the cause

- a) Vit-B₁ def
- b) Vit-B₆ def
- c) Vit-B₁₂ def
- d) Vit-E def
- e) Vit-K def

C

34. Zinc deficiency does not cause

- a) Alopecia
- b) Acrodermatitis enteropathica
- c) Hypopigmentation
- d) Depressed immune response
- e) Delayed wound healing

C

35. Rate limiting enzyme for glycogenesis

- a) Glucose synthase
- b) Glycogen synthase
- c) Phosphofructokinase
- d) Glucokinase
- e) Hexokinase

B (Glycogen Synthase)

36. Which element causes hair colour with weight loss

- a) Mn
- b) Mo
- c) Zn
- d) Fe
- e) As

A (Manganese)

37. Iron is absorbed in

- a) Stomach
- b) Duodenum
- c) Jejunum
- d) Ileum
- e) Colon

B

38. Among the fat soluble vitamins which vitamin acts as a Co-enzyme

- a) Vit A
- b) Vit D
- c) Vit E
- d) Vit K
- e) Tocopherol

D

New

39. Which one is trace element

- a) Arsenic
- b) Lead
- c) Cadmium
- d) Phosphorus
- e) Selenium

E (Explanation:- a,b,c toxic elements d- macro minerals)

40. Which one is not correct

- a) Vit B12 deficiency – Megaloblastic anaemia
- b) Vit C deficiency – Fe deficiency anaemia
- c) Vit E deficiency – hemolytic anaemia
- d) Vit B6 deficiency – hemolytic anaemia
- e) Vit B9 deficiency – megaloblastic anaemia

D

41. Which one is omega 3 fatty acid

- a) Linoleic acid
- b) Linolenic acid
- c) Palmitic acid
- d) Oleic acid
- e) Arachidonic acid

B [ABC bio-74 page, 6th edition]

42. Following is low energy phosphate

- a) 1,3 bisphosphoglycerate
- b) GIP
- c) Creatine phosphate
- d) CAMP
- e) AMP

E

43. Hormone sensitive lipase is inhibited by

- a) Adenosine
- b) ACTH
- c) Glucagon
- d) Thyroid hormone
- e) Vasopressin

A

44. Rate limiting enzyme for urea cycle is

- a) Isocitrate dehydrogenase
- b) Carbamoyl phosphate synthase I
- c) Phosphoenol pyruvate carboxykinase
- d) α -Ketoglutarate dehydrogenase
- e) Carbamoyl phosphate oxidase

B

45. HDL is synthesized & secreted from

- a) Kidney
- b) Intestine
- c) Gall bladder
- d) Brain
- e) Adipose tissue

B

46. Satiety is not related to following gut hormone

- a) CCK
- b) GIP
- c) Ghrelin
- d) Glucagon like peptide-1
- e) Peptide YY

C (Ref: Davidson's 23rd, Page-772)

47. Secretion of 'secretin' is stimulated by

- a) Products of protein digestion
- b) Duodenal acid
- c) Dietary fat
- d) Carbohydrates
- e) Glucose

B (Ref: Davidson's 23rd, Page-772)

48. The oxyntic cells of stomach secrete

- a) Pepsin
- b) Intrinsic factor
- c) Gastrin
- d) Pepsinogen
- e) Amylase

B

49. Which is not enzyme of intestinal brush border

- a) Neuropeptide
- b) Lactase
- c) Maltase
- d) Aminopeptidase
- e) Endopeptidase

A

50. Which is not feature of malabsorption in blood biochemistry

- a) Low serum zinc
- b) Hypomagnesaemia
- c) Hypocalcaemia
- d) Hypophosphatemia
- e) Low blood glucose

E (Ref: Davidson's 23rd, Page-785)

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