

IDA REGISTERED DIETITIAN EXAMINATION

7th NOVEMBER 2015

PAPER I (Physiology, Microbiology, Biochemistry)

Time : 2 Hours

Max . Marks: 100

Answer All Questions

SECTION A

I. Multiple Choice Questions

(10 x2 = 20 marks)

1. Bile acid has a detergent action due to
 - a. formation of soap
 - b. formation of zwitter ion
 - c. amphipathic nature of bile acids
 - d. formation of medium chain triglycerides

2. A simple sensitive test for CHO metabolism is _____ breath test
 - a) Oxygen b) Nitrogen c) Carbon d) Hydrogen

3. What is the fate of any enzyme that is present in the foods we eat?
 - a) Hydrolysed in the GI tract
 - b) Absorbed intact by the small intestine
 - c) Passed through the GI tract & Excreted in the stool
 - d) Absorbed intact by the small intestine

4. In Alcoholic cirrhosis _____ is elevated
 - a) Albumin b) SGOT c) SGPT d) GGT

5. During starvation, the major source of blood glucose is
 - a) Hepatic glycogenolysis b) Gluconeogenesis c) Muscle glycogenolysis
 - d) Dietary glucose from intestine

6. With reference to microorganism the water activity (a_w) for pure water is
 - a) 1.00 b) 9.99 c) 0.9823 d) 0.1

7. The two nutrients together are called symporters
a) Glucose & Potassium b) Glucose & Sodium c) Glucose & amino acid
D) Glucose & free fatty acids
8. Prevention of self decomposition can be accomplished by
a) Blanching b) Washing c) Chemicals d) Heat
9. Stress causes damage to _____ gland and it in turn causes cancer
a) Pituitary b) Thymus c) Thyroid d) Adrenal
10. SGOT returns to normal within _____ days after MI
a) 1 – 3 b) 2 -4 c) 3 -5 d) 4 – 6

SECTION B

(50 Marks)

II. Explain the following terms in one or two sentences

(5x1 = 5 marks)

1. Rouleaux formation
2. Blind loop syndrome
3. Graveyard of RBCs
4. Zollinger Ellison syndrome
5. Hypercapnic

III. Write the name of the condition / disorder caused by the following

(5x1 = 5 marks)

1. Inflammation in the bile ducts , may be acute or sclerosing
2. Absence of hydrochloric acid and pepsin in gastric juice
3. Phenylalanine hydroxylase deficiency
4. Pain associated with swallowing
5. Bacterial infection of the kidneys

IV. State whether the following statements are true or false

(5x1 = 5 marks)

1. Incretins can slow down the rate of absorption by reducing gastric emptying
2. Cytokines are the hormone like proteins that act as intercellular messengers

3. Only cardiac muscles have troponin T in them, and not skeletal or smooth muscle
4. Visfatin is an adipocytokine secreted by visceral adipose tissue
5. 50% of dextrose X 5 = 250 mOsm per litre

V. Match the following

(6x1 = 6 marks)

- | | |
|------------------------------------|--|
| 1. Calcitonin | a. Glycogen phosphorylase |
| 2. Mc ² Ardles diseases | b. Egg yolk |
| 3. Inulin | c. Cabbage |
| 4. Phosphotidyl choline | d. Chicory |
| 5. C- Reactive protein | e. Broccoli |
| 6. Sauerkraut | f. Early biomarker for cardiac & neoplastic diseases |
| | g. Novel Protein |
| | h. Lowers serum calcium |

VI. Name one organism /toxicant involved in each of the following (5x1 = 5 Marks)

1. Aflatoxin
2. Patulin
3. Giardiasis
4. Trichinosis
5. Luteoskyrin

VII. Fill in the blanks

(5x1 = 5 Marks)

1. The absorption of glucose is decreased by the deficiency of _____
2. _____ is an agent, which increases the release of bile from gall bladder into the intestine by contraction of gall bladder

3. The specific enzyme secreted in the stomach of infants & children is _____
4. Organic substance _____ is responsible for causing Hepatic encephalopathy
5. _____ is the commonest Oro-fecal microorganism that causes GI disorders.

VIII. Expand the following and give one significance of the same (5x2 = 10 Marks)

1. HHS
2. FSSAI
3. CCPD
4. SLE
5. GRAS

IX. Give any two differences between:

(3x3 = 9 Marks)

1. Insulin & Glucagon
2. Starvation & Cachexia
3. Dyspepsia & Dysphagia

SECTION – C

X. Answer any two questions

(2x15 = 30 Marks)

1. a. Write on control measures to prevent food borne diseases and precautions to be taken by food handlers **(7 marks)**
b. Discuss on any two fermented foods under following heading **(6 marks)**
 - i. Raw material used, organisms and products obtained
c. Write two benefits of fermentation **(2 marks)**
 2. Discuss on five hormones that aid and regulate the digestive system **(15 marks)**
 3. Discuss how enzymes are used as therapeutic agents **(15 marks)**
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