IDA REGISTERED DIETITIAN EXAMINATION

8th February, 2020 - Paper I

PHYSIOLOGY, MICROBIOLOGY, BIOCHEMISTRY

Time: 2 Hours **Max. Marks: 100**

Instructions: Answer All Questions

SECTION A

I. Choose the right answer **10 x 2 =20 m**

1. The most active form of Vitamin D is
   a. 25 hydro cholecalciferol
   b. 25 hydroxyergocalciferol
   c. 24,25 dihydroxycholecalciferol
   d. 1, 25 dihydroxycholecalciferol

2. Neutropenia is seen in all except
   a. Pernicious anaemia
   b. Severe bacterial infection
   c. Trauma
   d. Bone marrow depression

3. Best stimuli for secretin is
   a. Protein
   b. Acid
   c. Fat
   d. Bile

4. The oxyntic cells secrete
   a. HCl
   b. Intrinsic factor
   c. Both
   d. None of the above

5. Cori cycle involves
    a. Glucose and alanine
    b. Malate and aspartate
    c. Glucose and lactate
    d. Q cycle
6. The preferred fuel substrate for exercising skeletal muscle is
    a. Glucose
    b. Fatty acids
    c. Amino acids
    d. Ketone bodies
7. What are the intrinsic factors for the microbial growth?
    a. pH
    b. moisture
    c. oxidation reduction potential
    d. all of these
8. The rapid and constant rate of multiplication of an organism occurs during the
    a. Lag phase
    b. Exponential phase
    c. Stationary phase
    d. Survival phase
9. The diarrheal syndrome and the emetic syndrome are characteristic of
    a. Staphylococcal food poisoning
    b. Salmonellosis
    c. Perfringens poisoning
    d. Bacillus cereus food poisoning
10. The predominant symptoms in the lower gastrointestinal tract infection is
    a. Fever
    b. Abdominal cramps and diarrhoea
    c. Chills
    d. Malaise

SECTION B 50 m

II. Explain the following terms in one or two sentences 5 x1 =5 m

a) MODY
b) White-coat hypertension
c) Diabetic ketoacidosis
d) Borborygmi
e) Opportunistic Infection

III. Write the name of the condition / disorder caused by the following 5 x 1 = 5 m

a) Abnormally low number of thrombocytes
b) Deficiency of the enzyme Phenylalanine hydroxylase
c) Flat patches of lymphatic tissue in the small intestine mainly in the ileum, seat of infection of typhoid fever
d) Inflammatory degenerative disease of the brain caused by thiamine deficiency associated with alcoholism
e) Absence of hydrochloric acid in the gastric secretions

IV. State whether the following statements are True or False 5 x 1=5 m

a) Exophthalmic goitre is caused due to the overactivity of thymus.
b) Cholesterol is maximally carried in LDL.
c) Hypoglycaemia is caused by the over secretion of insulin.
d) The shortest part of the colon is descending colon.
e) Simple goitre can be prevented by using iodised salt in food.

V. Match the following 6 x 1 = 6 m

1. Antidiuretic Hormone	a. Hypothyroidism
2. Nissl bodies	b. Kidney
3. Crypts of Lieberkühn	c. Reduced Hb level
4. Cyanosis	d. Small intestine
5. Nephron	e. Protein synthesis
6. Thyroxine	f. Diabetes insipidus

VI. Name one organism / Toxicants involved in each of the following 5 x 1 = 5 m

a) Epidemic drowsy
b) Kefir
c) Malt beverage
d) Bacillary dysentery
e) Lathyrism

VII. Fill in the blanks **5 x 1 = 5 m**

a) Deficiency of enzyme _____ results in lactose intolerance

b) The process of freezing foods using liquid nitrogen is called _____

c) 4% commercially available acetic acid is _____

d) _____ gland has both exocrine and endocrine functions.

e) _____ATP molecules are produced in one TCA cycle

VIII. Give any three differences between **3 x 3 = 9 m**

a) Somogyi effect and Dawn Phenomenon

b) Endemic Goitre and Exophthalmic goitre

c) Conditioned reflex and unconditioned reflex

IX. Expand the following and give one significance of the same **5 x 2 = 10 m**

a) HTST Process

b) TDT curve

c) HACCP

d) GFR

e) HbA1c

SECTION C

X. Answer any TWO Questions **2 x 15 = 30 m**

1. Discuss

a) Kreb's cycle with its significance 08m

b) Calcium regulation in the body 07m

2. Explain

a) Control measures to prevent food borne disease 10m

b) Principles of food preservation with suitable examples 05m

3. Discuss

a) Digestion of carbohydrates 10m

b) Importance of hydration in human nutrition 05m

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