

DEPARTMENT OF ZOOLOGY
NAMBOL L. SANOI COLLEGE, NAMBOL

QUESTION BANK FOR ZOOLOGY (HONOURS)
PREVIOUS YEARS

SEMESTER – VI
PAPER-VI / ZOO 608

UNIT 1. NUTRITION

Very short answers carrying 1 mark

(1 mark Questions)

Short Answer carrying 3 marks

- | | |
|--|------|
| a) Write the deficiency symptoms of riboflavin in the diet. | 2018 |
| b) Define Gustation. How many taste buds are present in human being approximately?
What is the life span of taste buds? | 2018 |
| c) Write the deficiency symptoms of calciferol in the diet. | 2019 |
| d) How are fats absorbed into the intestine? | 2019 |

Long Answer type Questions

- | | |
|--|------|
| a) Discuss the process of Digestion of food containing carbohydrates in the alimentary canal. (6 marks) | 2018 |
| b) Discuss the process of Digestion of food containing proteins and fats in different parts of the alimentary canal. (6 marks) | 2019 |

UNIT 2. Heart, Blood and Circulation

MCQ

- | | |
|--|------|
| a) Plasma is | 2018 |
| (i) the blood that has no red blood cells | |
| (ii) the liquid portion of the blood including the clotting factors | |
| (iii) the liquid portion of the blood minus the clotting factors | |
| (iv) the proteins of the blood | |
| b) The difference between the systolic and diastolic pressures is known as | |
| i) Blood pressure | |
| ii) Pulse pressure | |
| iii) Main arterial pressure | |
| iv) End- ventricular pressure | |

Very short answers carrying 1 mark

(1 mark Questions)

- a) Why are the thin walled and delicate capillaries less prone to rupture? 2018
- b) Why a person of O blood group cannot accept other blood groups but can donate to any other blood group? 2018
- c) Define null cells. 2018
- d) Why are leucocytes called wandering cells? 2019
- e) What is circulatory shock? 2019
- f) Name the miscellaneous hormone secreted by the heart. 2019

Short Answer carrying 3 marks

- a) Enumerate any two functions of liver. What do you mean by enterohepatic circulation? 2018
- b) What are the advantages of biconcave shape and no nucleus of RBC of mammals? 2018
- c) Define cardiac cycle, SA node and AV node. 2019

Long Answer type Questions

- a) What is heart beat? Describe the origin and conduction of heartbeat.(6 mark) 2018
- b) Write a note on human ABO blood groups. (6 mark) 2019

UNIT 3. Respiration

Very short answers carrying 1 mark

(1 mark Questions)

Short Answer carrying 3 marks

Long Answer type Questions

- a) What is O₂ dissociation curve? Why is it sigmoid in shape? What are the advantages of this shape? Write the meaning of the terms eupnea, dyspnea, apnea and hypernea. (12 marks) 2018
- b) Describe the mechanisms of inspiration and expiration. State Haldane effect and chloride shift. (12 marks) 2019

UNIT 4. Excretion

Very short answers carrying 1 mark

(1 mark Questions)

Short Answer carrying 3 marks

Long Answer type Questions

- a) Define micturition and Laplace's law. Describe the role of kidneys in maintaining acid-base balance. (12) 2018
- b) Define micturition. Describe the physiology of urine formation in man. (12) 2018

UNIT 5. Muscle, Nerve and sense organ

MCQ

- a) The cell organelle absent in the cytoplasm of a neurone is 2018
- (i) mitochondrion
 - (ii) Golgi body
 - (iii) centrosome
 - (iii) Nucleus
- b) Muscle contraction requires 2019
- i) Proteins
 - ii) ATP, Mg^{2+} and Ca^{2+}
 - iii) Stimulus
 - iv) All of the above
- c) Cori cycle is associated with 2019
- i) Lactic acid
 - ii) Pyruvic acid
 - iii) Oxalic acid
 - iv) Citric acid

Very short answers carrying 1 mark

(1 mark Questions)

- a) Write the full form of EEG. 2018
- b) What are chemical messengers? 2019

Short Answer carrying 3 marks

- a) Draw a well-labelled diagram of cross section of the spinal cord. 2018
- b) Write a short note on organ of Corti. 2019

Long Answer type Questions

- a) Define nerve impulse. How is the nerve impulse originated and propagated through a non- myelinated nerve fibre? (12 marks) 2018
- b) Describe the ultrastructure of a myofibril of a striated muscle fibre and discuss the molecular mechanism of muscle contraction. (12 marks) 2019

UNIT 6. Endocrinology

MCQ

- a. Fight or flight response is mediated by 2018
- (i) thyroid hormone
 - (ii) steroid hormone
 - (iii) parathyroid hormone
 - (iii) adrenal medullary hormone
- b. The name hormone' was first coined by 2018
- (i) Berthold
 - (ii) Claude Bernard
 - (iii) Bayliss and Starling
 - (iv) Brown Sequard
- c. Every time you eat a cookie or candy bar, your blood sugar increases. This triggers an increase in which of the following hormones? 2018
- (i) Thyroxine
 - (ii) Epinephrine
 - (iii) Adrenocorticotropin
 - (iv) Insulin
- d. Cushing's disease is caused by
- i) GH
 - ii) Thyroxine
 - iii) Insulin
 - iv) Glucocorticoids

- e. Secretion of progesterone by corpus luteum is initiated by 2019
- i) Testosterone
 - ii) Thyroxine
 - iii) MSH
 - iv) Lh

Very short answers carrying 1 mark

(1 mark Questions)

- a) How can cretinism be prevented in the offspring? 2018
- b) Define trophic hormone. 2018
- c) What do *T3* and *T4* stand for? 2019
- d) Why recombinant insulin found in the market has not produced immunogenic reactions on human body? 2019
- e) Which organ secretes erythropoietin and rennin hormones? 2019

Short Answer carrying 3 marks

- a) Differentiate between pituitary dwarfism and hypothyroid dwarfism. Give three points. 2018
- b) Draw and label the histology of thyroid gland. 2018
- c) “A temporary endocrine gland produces hormones for the maintenance of healthy pregnancy, preparation for labour and breastfeeding.” Name the endocrine gland, mention the hormones secreted and write one function of the gland. 2018
- d) What is hashimoto’s disease and how is it caused? 2019
- e) Is heart an endocrine gland? Write the names of two hormones secreted by heart. 2019

Long Answer type Questions

- a) What is diabetes mellitus? How is it caused? Enlist the hormones secreted from pancreas. Write the functions of insulin. (12 marks) 2018
- b) Write a brief account about pituitary as master gland of endocrine glands. (12 marks) 2018
- c) Describe the position, structure and hormone secreted by the thyroid gland. Write down about the hypersecretion and hyposecretion of thyroid gland. (12 marks) 2018
- d) What are endocrine glands? Describe the structure and function of pituitary gland. (12 marks) 2019

UNIT 7. Immunology

MCQ

- a) Immunoprecipitation involves the purification of 2018
- i) antigen
 - (ii) antibody
 - (iii) antigen and antibody
 - (iv) antigen-antibody complex

Very short answers carrying 1 mark

(1 mark Questions)

- a) What is natural passive immunity? 2018
- b) Write one useful outcome of antigen-antibody interactions. 2019

Short Answer carrying 3 marks

- a) What are CDY cells and how does HIV affect CDY cells? 2018
- b) Write the molecular formulas of any three of IgA, IgE, IgM and IgD. 2019
- c) Indicate the region where the cleavage takes place when treated with the enzymes papain and pepsin in an immunoglobulin molecule and identify their fragments with diagram. 2019

Long Answer type Questions