

Grade – 9 Biology

Multan Board

2019

Group 1

MCQs

i) Which organism has Colonial Organization?

(Mark 1)

- A. Volvox
- B. Amoeba
- C. Frog
- D. Mustard plant

Answer:

A. Volvox

ii) Which one of these is not a characteristic of a good hypothesis?

(Mark 1)

- A. Must be consistent with available data
- B. Must be testable
- C. Must be correct
- D. Must make predictions

Answer:

C. Must be correct

iii) Bacteria are assigned to the Kingdom:

(Mark 1)

- A. Protista
- B. Monera
- C. Fungi
- D. Plantae

Answer:

B. Monera

iv) The national animal of Pakistan is:

(Mark 1)

- A. Chakor
- B. Ibex
- C. Urial
- D. Markhor

Answer:

D. Markhor

v) Which of these do not have cell wall?

(Mark 1)

- A. Fungi
- B. Algae
- C. Animal
- D. Plants

Answer:

C. Animal

vi) Who developed first microscope?

(Mark 1)

- A. Robert Hooke
- B. Zacharias Janssen
- C. Louis Pasteur
- D. Robert Brown

Answer:

B. Zacharias Janssen

vii) During which phase of cell cycle spindle fibers are formed? (Mark 1)

A. Metaphase

B. Interphase

C. G2 phase

D. Prophase

Answer:

D. Prophase

viii) Structurally enzymes are made of:

(Mark 1)

A. Amino Acids

B. Minerals

C. Vitamins

D. Fats

Answer:

A. Amino Acids

ix) The Covalent bond connecting two phosphates is indicated by the symbol:

(Mark 1)

A. Ratio

B. Proportion

C. Tilde

D. Colon

Answer:

C. Tilde

x) Energy present in one gram of Carbohydrate is:

(Mark 1)

- A. 03 kilocalories
- B. 04 kilocalories
- C. 02 kilocalories
- D. 05 kilocalories

Answer:

- B. 04 kilocalories

xi) Valves to prevent the backward flow of blood are found in: (Mark 1)

- A. Arteries
- B. Capillaries
- C. Rectum
- D. Veins

Answer:

- D. Veins

xii) In a normal adult human, the weight of heart is: (Mark 1)

- A. 200-250 gram
- B. 150-200 gram
- C. 250-350 gram
- D. 100-200 gram

Answer:

- C. 250-350 gram

- Q.2 i) What is the difference between Zoology and Botany? (Marks 2)**
- Q.2 ii) What is the scientific name of Mustard Plant? Write its two advantages. (Marks 2)**
- Q.2 iii) Define Ratio and Proportion. (Marks 2)**
- Q.2 iv) What is Scientific Law? Give two examples. (Marks 2)**
- Q.2 v) What is meant by Biodiversity? (Marks 2)**
- Q.2 vi) What is the difference between the terms "Extinct" and "Endangered" species? (Marks 2)**
- Q.2 vii) What is the difference between Diffusion and Osmosis? (Marks 2)**
- Q.2 viii) Differentiate between Endocytosis and Exocytosis. (Marks 2)**
- Q.3 i) Define Cell Cycle and write its major phases. (Marks 2)**
- Q.3 ii) What is meant by Phragmoplast? Write its role in the plant's cell division. (Marks 2)**
- Q.3 iii) What is the difference between Benign and Malignant tumors? (Marks 2)**
- Q.3 iv) What is the difference between Catabolism and Anabolism? (Marks 2)**
- Q.3 v) Write two uses of Enzymes in Biological detergent. (Marks 2)**
- Q.3 vi) Define Aerobic Respiration and write its equation. (Marks 2)**
- Q.3 vii) What is meant by Alcoholic fermentation and Lactic acid fermentation? (Marks 2)**
- Q.3 viii) Define Bio-energetics. (Marks 2)**
- Q.4 i) What is the difference between Saturated and Unsaturated fatty acid? Give one example of each. (Marks 2)**
- Q.4 ii) What is Gastric Juice? Write down its chemical composition. (Marks 2)**
- Q.4 iii) What is meant by Macronutrients? Give two examples. (Marks 2)**
- Q.3 iv) What is the difference between "Bolus and Chyme"? (Marks 2)**

Q.4 v) Explain Pulmonary Circulation. (Marks 2)

Q.4 vi) Why human heart is called as double pump? (Marks 2)

Q.4 vii) What is meant by Angina Pectoris? (Marks 2)

Q.4 viii) Write two causes of Dengue fever. (Marks 2)

Q.5 a) Explain any four careers related to Biology. (Marks 4)

Q.5 b) Write a note on Nucleus. (Marks 5)

Q.6 a) Describe the effect of temperature and substrate concentration on enzyme action. (Marks 4)

Q.6 b) Define Photosynthesis and describe the role of light and chlorophyll on photosynthesis. (Marks 5)

Q.7 a) What do you know about Liver? Write down any four functions of Liver. (Marks 4)

Q.7 b) Write a note on Venous System. (Marks 5)

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Group 2

MCQs

i) The number of Bio elements in nature is: (Mark 1)

A. 13

B. 14

C. 15

D. 16

Answer:

D. 16

ii) The bark of plants contains quinine is: (Mark 1)

A. Mango tree

B. Pinus

C. Cinchona

D. Guava tree

Answer:

C. Cinchona

iii) Viroids are composed of only: (Mark 1)

A. Protein

B. RNA

C. DNA

D. Carbohydrate

Answer:

B. RNA

iv) The basic unit of classification is:

(Mark 1)

A. Genus

B. Order

C. Species

D. Class

Answer:

C. Species

v) Lysosomes were discovered by:

(Mark 1)

A. Golgi

B. Rudolf

C. Rene De Duve

D. De-Lamarck

Answer:

C. Rene De Duve

vi) Organelles, those have their own DNA are called: (Mark 1)

- A. Golgi bodies
- B. Ribosomes
- C. Mitochondria
- D. Lysosomes

Answer:

- C. Mitochondria

vii) Accidental death of cells and living tissues is called: (Mark 1)

- A. Apoptosis
- B. Necrosis
- C. Synapsis
- D. Regeneration

Answer:

- B. Necrosis

viii) Metabolism is derived from Greek word meaning: (Mark 1)

- A. Division
- B. Change

C. Deduction

D. Matter

Answer:

B. Change

ix) The lose of electron from an atom is called:

(Mark 1)

A. Oxidation

B. Reduction

C. Anabolism

D. Catabolism

Answer:

A. Oxidation

x) The disease caused by the deficiency of Iodine:

(Mark 1)

A. Scurvy

B. Rickets

C. Malaria

D. Goiter

Answer:

D. Goiter

xi) The average life span of Red blood cells is:

(Mark 1)

A. 120 days

B. 130 days

C. 180 days

D. 90 days

Answer:

A. 120 days

xii) In normal human adult the mass of Heart is:

(Mark 1)

A. 200-400 grams

B. 250-350 grams

C. 100-200 grams

D. 150-200 grams

Answer:

B. 250-350 grams

Q.2 i) Define Biotechnology. (Marks 2)

Q.2 ii) What is meant by Vegetative Organs? Write two examples of Vegetative Organs. (Marks 2)

Q.2 iii) Differentiate between Quantitative and Qualitative observations. (Marks 2)

Q.2 iv) Write any two observations of "A.F.A King" (Marks 2)

Q.2 v) Differentiate between Prions and Viroids. (Marks 2)

Q.2 vi) Describe the aims of Classification. (Marks 2)

Q.2 vii) Write functions of Leucoplasts and Chromoplasts. (Marks 2)

Q.2 viii) What is meant by Endocytosis? Also, write the names of its types. (Marks 2)

Q.3 i) Define Cell Cycle and write the names of its phases. (Marks 2)

Q.3 ii) When and who discovered crossing over in Drosophila Melanogaster? (Marks 2)

Q.3 iii) Define Mitosis and Mitotic Spindle. (Marks 2)

Q.3 iv) Describe briefly "Lock and Key" model of Enzymes. Who proposed it? (Marks 2)

Q.3 v) When and who used the term Enzyme first? (Marks 2)

Q.3 vi) Define Aerobic respiration and write its equation. (Marks 2)

Q.3 vii) Define two types of energy in living organisms. (Marks 2)

Q.3 viii) Write the effect of Carbon dioxide concentration on Photosynthesis. (Marks 2)

Q.4 i) Give the sources of Vitamin "A". (Marks 2)

Q.4 ii) Write two major reasons of famine. (Marks 2)

Q.4 iii) Write any two main causes of Constipation. (Marks 2)

Q.4 iv) Define Digestion. (Marks 2)

Q.4 v) Give any two reasons for creation of transpirational pull. (Marks 2)

Q.4 vi) Write two effects of temperature on the rate of transpiration. (Marks 2)

Q.4 vii) Describe the reason for the production of defective Leukocytes. (Marks 2)

Q.4 viii) Write two symptoms of Dengue fever. (Marks 2)

Q.5 a) Describe population and community level of organization of organisms. (Marks 4)

Q.5 b) Write the difference between Prokaryotic and Eukaryotic cells. (Marks 5)

Q.6 a) Write any four characteristics of Enzyme. (Marks 4)

Q.6 b) What is Photosystem? Explain the Calvin Cycle. (Marks 5)

Q.7 a) How Oral Cavity plays a role in the selection, grinding and partial digestion of food? (Marks 4)

Q.7 b) Write the Arterial system's plan of human blood circulatory system. (Marks 5)