

Rawalpindi BOARD

GRADE 9

BIO

2018 GROUP 1

Section A-(MCQs)

i) The process of glycolysis occur in (Mark 1)

- A. Cytoplasm
- B. Nucleus
- C. Mitochondria
- D. Ribosomes

Answer:

A. Cytoplasm

ii) Saliva contains an enzyme called (Mark 1)

- A. Trypsin
- B. Pepsin
- C. Amylase
- D. Lactose

Answer:

C. Amylase

iii) Which blood group individuals are called Universal donors?
(Mark 1)

A. B

B. O

C. AB

D. A

Answer:

B. O

iv) The stomata open when guard cells

(Mark 1)

A. Become flaccid

B. Become flat

C. Become turgid

D. None of these

Answer:

C. Become turgid

v) The name of the famous book written by Bu-Ali-Sina is

(Mark 1)

A. Al-Abil

B. Al-Nabatat

C. Al-Wahoosh

D. Al-Qanun-fial-Tib

Answer:

D. Al-Qanun-fial-Tib

vi) Water makes the composition of the protoplasm of all living organisms

(Mark 1)

A. 50-70%

B. 70-80%

C. 60-70%

D. 80-90%

Answer:

C. 60-70%

vii) The mosquito which transmits dengue fever is (Mark 1)

A. Culex

B. Anopheles

C. Aedes

D. None of these

Answer:

C. Aedes

viii) The basic unit of classification is (Mark 1)

A. Genus

B. Species

C. Population

D. Family

Answer:

B. Species

ix) The movement of molecules from an area of lower concentration to an area of higher concentration is called (Mark 1)

A. Active transport

- B. Passive transport
- C. Facilitated diffusion
- D. Osmosis

Answer:

- A. Active transport

x) The resolution of the human eye is

(Mark 1)

- A. 0.01 mm
- B. 0.001 mm
- C. 0.1 mm
- D. 1 mm

Answer:

- C. 0.1 mm

xi) During which phase the metabolic activities of the cell are very high?

(Mark 1)

- A. Prophase
- B. Metaphase
- C. Anaphase
- D. Interphase

Answer:

- D. Interphase

xii) The enzyme lipase acts only on

(Mark 1)

- A. Liposomes
- B. Lipids

C. Proteins

D. Carbohydrates

Answer:

B. Lipids

Q.2 i) What is meant by animal Husbandry? (Marks 2)

Q.2 ii) Define Histology. (Marks 2)

Q.2 iii) What is the difference between control and experimental group?
(Marks 2)

Q.2 iv) What are observations? Name their types. (Marks 2)

Q.2 v) What is status of the viruses in classification? (Marks 2)

Q.2 vi) Write two aims of classification. (Marks 2)

Q.2 vii) What is cytoskeleton? (Marks 2)

Q.2 viii) Name any two types of epithelial tissue. (Marks 2)

Q.3 i) Define "Meiosis". (Marks 2)

Q.3 ii) What is meant by Necrosis? (Marks 2)

Q.3 iii) Explain Asexual reproduction with an example. (Marks 2)

Q.3 iv) Write the difference between intra and extra cellular enzymes.
(Marks 2)

Q.3 v) Write the difference between co-factors and co-enzymes.
(Marks 2)

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

Q.3 vii) What is meant by photolysis of water? (Marks 2)

Q.3 viii) Describe Alcoholic fermentation. (Marks 2)

Q.4 i) What is ulcer? Write two symptoms of ulcer. (Marks 2)

Q.4 ii) Write names of two diseases of the gut. (Marks 2)

Q.4 iii) What is meant by WFP? (Marks 2)

Q.4 iv) Differentiate between bolus and chyme. (Marks 2)

Q.4 v) What is meant by angina pectoris? (Marks 2)

Q.4 vi) Write names of different chambers of a human heart.
(Marks 2)

Q.4 vii) Write the names of two proteins found in blood plasma.
(Marks 2)

Q.4 viii) Write the symptoms of dengue fever. (Marks 2)

Q.5 a) Which professions can be adopted after biological studies? Explain any four.
(Marks 4)

Q.5 b) Draw a diagram of ultra-structure of plant cell and label its any six parts.
(Marks 5)

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

Q.6 b) Describe the mechanisms of respiration. (Marks 5)

Q.7 a) Write a detailed note on dietary fibers. (Marks 4)

Q.7 b) How many types of blood vessels are there? (Marks 5)

Explain arteries and veins.

Rawalpindi BOARD

GRADE 9

BIO

2018 GROUP 2

Section A-(MCQs)

i) Which organisms regenerate its lost parts through mitosis?
(Mark 1)

A. Sea Star

B. Spider

C. Fish

D. Frog

Answer:

A. Sea Star

ii) Which Vitamin acts like a co-enzyme?

(Mark 1)

A. Tartaric acid

B. Citric acid

C. Lactic acid

D. Folic acid

Answer:

D. Folic acid

iii) The area of leaf surface which stomata cover is

(Mark 1)

A. 0.5-1%

B. 1-1.5%

C. 1-2%

D. 2-3%

Answer:

C. 1-2%

iv) A micronutrient required in nitrogen metabolism is

(Mark 1)

A. Copper

B. Nickel

C. Chromium

D. Magnesium

Answer:

B. Nickel

v) A person having none of the antigen A and B has a blood group.
(Mark 1)

A. AB

B. B

C. A

D. O

Answer:

D. O

vi) The scientist who discovered the pumping action of heart was
(Mark 1)

A. William Henry

B. Louis Pasteur

C. William Harvey

D. De Duve

Answer:

C. William Harvey

vii) A group of members of same species living at the same place at the same time is called
(Mark 1)

A. Community

B. Population

C. Biome

D. Ecosystem

Answer:

B. Population

viii) Microscopic study of tissues is called

(Mark 1)

- A. Histology
- B. Pathology
- C. Anatomy
- D. Physiology

Answer:

- A. Histology

ix) Which organism is the cause of malaria?

(Mark 1)

- A. Fungi
- B. Bacteria
- C. Plasmodium
- D. Dengue virus

Answer:

- C. Plasmodium

x) Related genera combine to make a

(Mark 1)

- A. Population
- B. Family
- C. Genus
- D. Species

Answer:

- B. Family

xi) The sites for protein synthesis are

(Mark 1)

- A. Nucleus
- B. RNA
- C. Mitochondria
- D. Ribosomes

Answer:

D. Ribosomes

xii) The major energy production centers are

(Mark 1)

- A. Golgi Bodies
- B. Endoplasmic reticulum
- C. Peroxisomes
- D. Mitochondria

Answer:

D. Mitochondria

Q.2 i) What is biotechnology?

(Marks 2)

Q.2 ii) Describe briefly the career of Horticulture.

(Marks 2)

Q.2 iii) Write two characteristics of a good hypothesis.

(Marks 2)

Q.2 iv) Differentiate between ratio and proportion.

(Marks 2)

Q.2 v) What is Taxon and Taxonomic hierarchy?

(Marks 2)

Q.2 vi) Which two organizations are working for the protection of biodiversity in Pakistan?
(Marks 2)

Q.2 vii) What is filtration?

(Marks 2)

Q.2 viii) Differentiate between exocytosis and endocytosis. (Marks 2)

Q.3 i) What is kinetochore?

(Marks 2)

Q.3 ii) Write down the definition of crossing over.

(Marks 2)

- Q.3 iii) Write down the advantages of apoptosis. (Marks 2)
- Q.3 iv) What is meant by the specificity of enzymes? (Marks 2)
- Q.3 v) Write the mechanism of enzyme action in the form of an equation. (Marks 2)
- Q.3 vi) Define ATP. Also, write down a use of ATP. (Marks 2)
- Q.3 vii) What is meant by pigments? Write names of photosynthetic pigments. (Marks 2)
- Q.3 viii) Define glycolysis. (Marks 2)
- Q.4 i) What is dietary fiber? Give its source. (Marks 2)
- Q.4 ii) Write the role of potassium and calcium in human body. (Marks 2)
- Q.4 iii) Describe the importance of Vitamin-C. (Marks 2)
- Q.4 iv) What is meant by protein-energy malnutrition? (Marks 2)
- Q.4 v) Why human heart is called a double pump? (02 marks)
- Q.4 vi) What is meant by transpirational pull? (Marks 2)
- Q.4 vii) Define pulmonary circulation and systemic circulation. (Marks 2)
- Q.4 viii) Write two symptoms of dengue fever. (Marks 2)
- Q.5 a) Define the term Biology and describe its three major divisions. (Marks 4)
- Q.5 b) Explain the structure and function of the cell membrane. (Marks 5)
- Q.6 a) Write down the characteristics of enzymes. (Marks 5)
- Q.6 b) Define fermentation? Explain its importance. (Marks 4)
- Q.7 a) Write down the importance of fertilizers. (Marks 5)
- Q.7 b) Write a note on arteries. (Marks 4)