



MODEL PAPER, 2023

Subject: Biology

Grade - IX

M. Marks: 60

Time: 3 Hours

SECTION "A"

(MULTIPLE CHOICE QUESTIONS)

- Q1. Choose the correct answer for each from the given options: (12)**
- (i) Similar cells combine together to form _____.
- (a) Organ (b) Tissue (c) System
- (ii) Scientific reasoning moves from specific to general:
- (a) Inductive (b) Deductive (c) Observation
- (iii) _____ is non cellular obligate parasite:
- (a) Bacteria (b) Virus (c) Fungi
- (iv) What is the function of the rough endoplasmic reticulum:
- (a) Synthesis of steroid (b) Synthesis of protein (c) Synthesis of carbohydrates
- (v) The point where the enzymes is most active is known as:
- (a) Acidic pH (b) Optimum pH (c) Basic pH
- (vi) Each mole of ATP store energy:
- (a) 7-3 Kcal/Mole (b) 17-3 Kcal/mole (c) 7-8Kcal/mole
- (vii) Opening and closing of stomata is also regulated by:
- (a) Stromal cell (b) Guard cell (c) Mitochondria
- (viii) In the human body there are more than _____ known enzymes.
- (a) 500 (b) 1000 (c) 1500
- (ix) A type of cell division in which spore mother cell produces spores:
- (a) Mitosis (b) Meiosis (c) Amitosis
- (x) Cell organelle found in animal cell and help in intracellular digestion:
- (a) Lysosome (b) Ribosome (c) Mitochondria
- (xi) Science of classification is called:
- (a) Taxonomy (b) Parasitology (c) Histology
- (xii) The comparison of two values is called:

(a) Ratio

(b) Proportion

(c) Graph

SECTION "B"

SHORT ANSWER QUESTIONS

Note: Answer any eight questions from this section. Each question carries 3 marks.

(24)

- Q2. Define biodiversity? Write any three importance of biodiversity?
- Q3. Define biology? Discuss any three branches of biology?
- Q4. What is biological method? Make a flow chart to show the steps involved in biological method?
- Q5. Write any three differences between prokaryotic cell and eukaryotic cell OR photosynthesis and respiration?
- Q6. What is cell theory? Discuss the postulates of cell theory?
- Q7. Define chromosomes? Discuss the types of chromosomes on the basis of position of centromere on the basis of structure?
- Q8. Define the following:
- (i) Chiasmata (ii) Crossing over (iii) Photolysis
- Q9. What are enzymes? Discuss any three characteristics of enzymes?
- Q10. What is aerobic respiration? Write its chemical equation?
- Q11. Write important function of live?
- Q12. Give the scientific reason:
- Why virus is not placed in any kingdom?
 - Why meiosis-I is called reduction division?

SECTION "C"

DESCRIPTIVE ANSWER QUESTION

Note: Answer any four questions from this section. Each question carries 6 marks.

(24)

- Q13. Describe chemical process of energy transmission OR Describe the fluid model of cell membrane?
- Q14. Describe any one of the following disorder with the help of symptoms and causes.
- (i) Leukemia (ii) Thalassemia (iii) Anemia

- Q15. Draw a neat and labeled diagram of Human digestion system OR structure of human heart?**
- Q16. Define binomial nomenclature and write the basic principles of binomial nomenclature?**
- Q17. Define tissue, briefly describe the animal tissue with its types.**
- Q18. What is transpiration? Explain the mechanism of transpiration and factors affecting transpiration OR describe various stages of mitosis.**