



MODEL PAPER, 2023

Subject: Biology

Grade-X

M. Marks: 60

Time: 3 Hours

SECTION "A"

(MULTIPLE CHOICE QUESTIONS)

- Q1. Choose the correct answer for each from the given options: (12)
- (i) The kidney is enclosed in a membrane called:
(a) Pericardium (b) Peritoneum (c) Pleural membrane
- (ii) Which of the following disorder is associated with inflammation of air passage ways:
(a) Asthma (b) Bronchitis (c) Lung cancer
- (iii) The male gonads in rabbit are:
(a) Testis (b) Ovaries (c) Scrotal sac
- (iv) The exact duplication of DNA is called:
(a) Duplication (b) Replication (c) Transcription
- (v) The life sustaining envelop of earth is:
(a) Biosphere (b) Biomes (c) Atmosphere
- (vi) The bread dough rises during alcoholic fermentation is due to:
(a) Methyl alcohol (b) CO₂ (c) H₂O
- (vii) Conversion of atmospheric free nitrogen gas into nitrates called:
(a) Nitrification (b) Denitrification (c) Nitrogen fixation
- (viii) Extra circular DNA which use as a vector of a gene is:
(a) Genome (b) Plasmid (c) Ligase
- (ix) Seeds do not germinate at temperature below 0°C or above:
(a) 35°C (b) 45°C (c) 25°C
- (x) _____ is more common in female than male:
(a) Osteoporosis (b) Rickets (c) Arthritis
- (xi) Cartilage is made up of _____ cells.
(a) Chondrocytes (b) Osteocytes (c) Osteoclast
- (xii) Removal of extra liquid (water) from plant is:
(a) Guttation (b) Transpiration (c) Respiration

SECTION "B"
SHORT ANSWER QUESTIONS

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

(24)

- Q2. Write three main aspects of homeostasis?
- Q3. Write any three difference between cartilage and bone OR asexual and sexual reproduction?
- Q4. What are the main functions of skeleton?
- Q5. What is pollination? Discuss the types of pollination?
- Q6. Define the following:
(i) Spermatogenesis (ii) Drugs (iii) Oxygen debt
- Q7. Write a brief note on lung cancer OR acid rain OR kidney stone.
- Q8. What is brain? Write the name of important parts of brain?
- Q9. What is Joint? Discuss the types of joint.
- Q10. List out the male reproductive organs of a rabbit with glands?
- Q11. What is role in the formation of curd? Explain its role in the formation of curd?
- Q12. What are the different types of fermentation OR define variation also discuss the types of variation.
- Q13. Define vaccine. How does a vaccine work against pathogen?

SECTION "C"
DESCRIPTIVE ANSWER QUESTION

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

(24)

- Q14. Describe the theory of natural selection. (Darwinism) OR
Describe nitrogen cycle as biogeochemical.
- Q15. Describe the structure of kidney with the help of labeled diagram.
- Q16. What is germination? Give the conditions that is necessary for seed germination?
- Q17. Describe the biotic factors of an ecosystem OR describe the Mendel's law of independent assortment with the help of checker board.
- Q18. Describe the structure of human skin?
- Q19. Define biotechnology? Describe the scope and importance of biotechnology.

OR

Describe different types of asexual reproduction in animals?