

NOTE: You have four choices for each objective type question as A , B , C and D . The choice which you think is correct , fill that circle in front of that question number. Use marker or pen to fill the circles. Cutting or filling two or more circles will result in zero mark in that question.

QUESTION NO. 1

- 1 Complete immobilization of muscle leads to muscle weakness and severe
(A) Atrophy (B) Cramp (C) Tetany (D) Trauma
- 2 Hormone that suppresses ovulation is
(A) Testosterone (B) Oestrogen (C) Progesterone (D) Gastrin
- 3 The yellowish glandular structure corpus luteum , starts secreting a hormone
(A) LH (B) FSH (C) Oestrogen (D) Progesterone
- 4 Which represents the dorsal and both lateral lips of blastopore ?
(A) Primitive streak (B) Henson's Node (C) Coelom (D) Neurocoel
- 5 Healing of fracture and repair of the skin are examples of
(A) Reproduction (B) Mutation (C) Regeneration (D) Induction
- 6 Miescher extracted a white substance from the nuclei of human cells and fish sperm called
(A) Nuclein (B) Penicillin (C) Mucin (D) Adenine
- 7 Each bivalent has chromatids wrap around each other
(A) 02 (B) 04 (C) 06 (D) 08
- 8 In diplotene , homologous chromosomes remain united by their point of interchange called
(A) Bivalent (B) Centromere (C) Synapse (D) Chiasmata
- 9 ABO blood group system was discovered by
(A) Bernstein (B) Punnett (C) Karl Landsteiner (D) Wiener
- 10 Organisms that have a foreign gene inserted into them are called
(A) Genome (B) Transgenic (C) Bioreactor (D) Nutrasweets
- 11 Armadillos armored mammals live only in
(A) Africa (B) Asia (C) America (D) Australia
- 12 The food relationship predator-prey creates a
(A) Chain (B) Cycle (C) Stage (D) Circle
- 13 Phytoplankton includes cyanobacteria which serve as
(A) Decomposers (B) Feeders (C) Crustaceans (D) Producers
- 14 The driving force behind all of natural cycles is
(A) Sun (B) Air (C) Water (D) Soil
- 15 The uptake of sodium in the thick loop of Henle is promoted by the action of
(A) ADH (B) Aldosterone (C) Oxytocin (D) Testosterone
- 16 Which emulsifies fats in small intestine ?
(A) Bile (B) Glycogen (C) Cholesterol (D) Lipoprotein
- 17 Angular thickenings in the primary walls are present in
(A) Parenchyma cells (B) Sclerenchyma cells (C) Collenchyma cells (D) Tracheids

QUESTION NO. 2 Write short answers any Eight (8) of the following

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1	Define lithotripsy
2	What are poikilotherms ? Give one example.
3	What is homeostasis ?
4	Differentiate between tendon and ligament
5	Briefly write hematoma formation
6	Give composition of filaments of skeletal muscle
7	How sperms travel from testes to outside ?
8	Define ovulation and menopause
9	What are Prairies and Savanna ?
10	Briefly describe the conditions of Taiga
11	What are the effects of ozone layer ?
12	Define eutrophication. What are its effects ?

QUESTION NO. 3 Write short answers any Eight (8) of the following

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1	What are Neurotransmitters ? Give their examples
2	Define Gibberellins. Give their two commercial applications
3	Define Epilapsy. Give its treatment
4	Define multiple alleles. Give an example
5	Differentiate between homozygous and heterozygous
6	Give any two adverse effects of maternal foetal Rh-incompatibility
7	What is Recombinant DNA ?
8	Define palindromic sequences. Give one example
9	Compare molecular scissors and vectors
10	Define the term commensalism by giving an example
11	Differentiate between Ammonification and Nitrification
12	What is parasitism ?

QUESTION NO. 4 Write short answers any Six (6) of the following

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1	Define growth correlations
2	Differentiate between inhibitory effects and compensatory effects is apical dominance
3	Differentiate between purines and pyrimidines bases
4	Name any four important enzymes involved in DNA Replication
5	What is semiconservative replication of DNA ?
6	Why interphase is called resting phase ?
7	Compare cytokinesis in animal cell with cytokinesis in plant cell
8	What is endosymbiont hypothesis ?
9	What do you mean by descent with modification ?

SECTION-II

Note: Attempt any Three questions from this section

8 x 3 = 24

Q.5.(A)	Give major homeostatic functions of liver
(B)	What is nitrogen cycle ? Discuss various steps of nitrogen cycle
Q.6.(A)	Write sliding filament model of muscle contraction in detail
(B)	Write in detail Watson and Crick's model of DNA
Q.7.(A)	Define Synapse. How nerve impulse passes from one neuron to another
(B)	Write note on deforestation and afforestation
Q.8.(A)	Discuss female reproductive system in Human female
(B)	Explain Diabetes mellitus and its genetic basis
Q.9.(A)	Write a note on neurulation in chick development
(B)	How is comparative embryology the evidence of evolution ?