

**Section-A****(Multiple Choice Questions (MCQ's))****Q.1** Choose the correct answer for each from the given options:

- (i) Mammals lacking sweat glands promote heat loss through.  
 (a) Aestivation (b) Hibernation (c) Panting (d) All of these
- (ii) The study of abnormal development is called \_\_\_\_\_  
 (a) Gerontology (b) Teratology (c) Ethology (d) Embryology
- (iii) Acetylcholine, Noradrenaline, dopamine are \_\_\_\_\_  
 (a) Enzyme (b) Hormones (c) Neurotransmitter  
 (d) None of these
- (iv) Free living organisms in the environment that have a foreign gene are said to be \_\_\_\_\_  
 (a) Transgenic bacteria (b) Transgenic organisms  
 (c) Transgenic plants (d) None of these
- (v) Which part of brain is called "clearing house"?  
 (a) Thalamus (b) Hypothalamus (c) Amygdala  
 (d) Corpus callosum
- (vi) Removal of an allele from the population is:  
 (a) Genetic drift (b) Genetic death (c) Genemutation (d) Gene pool
- (vii) The anemia is due to deficiency of \_\_\_\_\_  
 (a) Calcium (b) Iron (c) Iodine (d) Vitamins
- (viii) \_\_\_\_\_ are found in CNS.  
 (a) Sensory neuron (b) Motor neuron (c) Inter neuron (d) All of these

**Section-B****(Short Answer)****Note: Answer any TEN of the following questions. Question No:2 is compulsory.**

- Q.2 Differentiate between any ONE of the following:  
 (a) Hermaphrodite and Heterophrodite  
 (b) Chemical control and Nervous control
- Q.3 What is the role of kidney in osmoregulation?
- Q.4 Name and number of bones in Appendicular Skeleton.
- Q.5 Define the term somatopleure and splanchnopleure.
- Q.6 What is meant by biceps, monopole and triceps muscles?
- Q.7 Write down the Germinal continuity Theory?
- Q.8 How do blood vessels in the skin help to regulate body temperature during hot and cold season?
- Q.9 Enlist the steps in process of development.
- Q.10 Draw the chart of deamination and urea formation.
- Q.11 Enlist the basic steps in recombinant DNA technology.
- Q.12 Explain the working of sensory receptor in skin.
- Q.13 Which is the highest form of learning and why?
- Q.14 Define any TWO of the following:  
 Fever - Classic conditioning - Deme - CFC

**Section-C****(Descriptive Answer)****Note: Answer any ONE of the following questions, which carries 13 (7+6) marks.**

- Q.15 (a) Explain the Notochord formation and differentiation of mesoderm in chick embryo.  
 (b) Define Organic evolution, Describe briefly evidence of evolution from paleontology, taxonomy and from comparative anatomy.
- Q.16 (a) Explain excretory system of planaria with suitable diagram.  
 (b) Discuss different types of joints in human skeleton.