

FEDERAL PUBLIC SERVICE COMMISSION



COMPETITIVE EXAMINATION FOR RECRUITMENT TO POSTS IN BS-17 UNDER THE FEDERAL GOVERNMENT, 2011

ZOOLOGY, PAPER-II

TIME ALLOWED:	(PART-I MCQs)	30 MINUTES	MAXIMUM MARKS: 20
THREE HOURS	(PART-II)	2 HOURS & 30 MINUTES	MAXIMUM MARKS: 80
NOTE: (i) First attempt PART-I (MCQs) on separate Answer Sheet which shall be taken back after 30 minutes.			
(ii) Overwriting/cutting of the options/answers will not be given credit.			

(PART-I MCQs) (COMPULSORY)

- Q.1.** Select the best option/answer and fill in the **appropriate box** on the **Answer Sheet**. (1 x 20=20)
- (i) Which one of the enzyme is present in saliva:
(a) Tyaline (b) Pepsin (c) Enterokinase (d) Lipase (e) None of these
- (ii) Which one of the following act as Secondary Messenger after hormonal action on target cells:
(a) ATP (b) CTP (c) CAMP (d) ADP (e) None of these
- (iii) Besides nucleus of cell, which organelles also contain DNA?
(a) Golgibodies (b) Lysosome (c) Mitochondria (d) Cell Membrane (e) None of these
- (iv) Lysosome in a cell is responsible for:
(a) Autolysis (b) Autophagy (c) Intracellular digestion (d) All of these (e) None of these
- (v) ABO blood system in human is example of:
(a) Epistasis (b) Linkage (c) Polygenic inheritance (d) Multiple allele (e) None of these
- (vi) Who describe sex linkage in Drosophilla:
(a) Sutton (b) Garth Nicolson (c) Jhonathan Singer (d) Robertson (e) None of these
- (vii) The number of cranial nerves in man is:
(a) 8 (b) 10 (c) 12 (d) 14 (e) None of these
- (viii) Wings of Birds and fly are example of:
(a) Homologus organ (b) Analogus organ
(c) Vestigeal organ (d) All of these (e) None of these
- (ix) The main chemical composition of ribosome is:
(a) RNA + Protein (b) DNA + Protein
(c) Protein + Carbohydrate (d) Protein + Lipids (e) None of these
- (x) The hormone cortisone is secreted by:
(a) Pituitary gland (b) Ovary (c) Pancreas (d) Adrenal gland (e) None of these
- (xi) In pond ecosystem the primary consumer are:
(a) Zooplankton (b) Insect larvae (c) Fish (d) All of these (e) None of these
- (xii) The xx, xo sex determination mechanism is present in:
(a) Man (b) Grasshopper (c) Birds (d) All of these (e) None of these
- (xiii) The DNA replication is:
(a) Conservative (b) Semi conservative
(c) Dispersive (d) Equatorial (e) None of these

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- (xiv) Which one of the following genetic disorder is dominant in man:
 (a) Colour blindness (b) Haemophilia (c) Tay-Sachs (d) All of these (e) None of these
- (xv) The abiotic factor that bring sudden changes in ecosystem is:
 (a) Light (b) Soil (c) In organic nutrients (d) Fire (e) None of these
- (xvi) In human, blood clotting is due to the presence of protein called:
 (a) Albumin (b) Globulin (c) Haemoglobin (d) Actin (e) None of these
- (xvii) Male sex hormones are collectively known as:
 (a) Estrogen (b) Androgen (c) Cortisone (d) Somatotrophic (e) None of these
- (xviii) Which one of the following is not a Membrane bound cell organelle:
 (a) Mitochondria (b) Endoplasmic Reticulum
 (c) Ribosome (d) Chloroplast (e) None of these
- (xix) The enzyme pepsin is present in:
 (a) Pancreatic Juice (b) Bile (c) Saliva (d) Gastric Juice (e) None of these
- (xx) The change in species composition of a community over a long period of time is called:
 (a) Food chain (b) Food web
 (c) Ecological succession (d) Nich (e) None of these

PART-II

NOTE:(i) **PART-II** is to be attempted on separate Answer Book.
 (ii) **Attempt ONLY FOUR questions from PART-II, selecting TWO questions from each SECTION. All questions carry EQUAL marks.**
 (iii) **Extra attempt of any question or any part of the attempted question will not be considered.**

SECTION - I

- Q.2.** (a) Describe the structure, chemical composition and function of Golgi complex. (10)
- (b) Explain Transport mechanism of plasma membrane. (10)
- Q.3.** (a) Differentiate between Mitosis and Meiosis cell division. (10)
- (b) Define linkage with examples. (10)
- Q.4.** (a) What are respiratory pigments? Describe haemoglobin in detail. (10)
- (b) Explain digestion of protein. (10)
- Q.5.** (a) Describe the main component of nervous system (10)
- (b) How nerve impulse is generated in neuron. (10)

SECTION - II

- Q.6.** (a) Explain the Darwin theory about evolution. (10)
- (b) Give an account of species concept. (10)
- Q.7.** (a) Differentiate between complete and incomplete ecosystem. (10)
- (b) Describe Air Pollution. (10)
- Q.8.** Write short notes on the following: (5 x 4 = 20)
- (a) Evolutionary trend (b) Phylogeny
- (c) Multiple alleles (d) Fossils.
