

ZOOLOGY, PAPER-I

**FEDERAL PUBLIC SERVICE COMMISSION
COMPETITIVE EXAMINATION FOR
RECRUITMENT TO POSTS IN BPS-17 UNDER
THE FEDERAL GOVERNMENT, 2009**

S.No.	
R.No.	

ZOOLOGY, PAPER-I

TIME ALLOWED:	(PART-I) 30 MINUTES	MAXIMUM MARKS:20
	(PART-II) 2 HOURS & 30 MINUTES	MAXIMUM MARKS:80

- NOTE:** (i) First attempt **PART-I (MCQ)** 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 (MCQ)
(COMPULSORY)

Q.1. Select the best option/answer and fill in the appropriate box on the Answer Sheet. (20)

- (i) What is the function of contractile vacuole?
(a) respiration (b) reproduction (c) osmoregulation
(d) digestion (e) None of these
- (ii) Specules are secreted by special mesenchymal amoebocytes called:
(a) scleroblasts (b) microscleres (c) myocytes
(d) collencytes (e) None of these
- (iii) True nerve cells or ganglion cells occur for the first time in:
(a) Protozoa (b) Porifera (c) Coelenterata
(d) Annelida (e) None of these
- (iv) The process by which an organism can replace its lost or damaged body parts is called:
(a) reformation (b) regeneration (c) reclamation
(d) reconstruction (e) None of these
- (v) Nematocysts are found in:
(a) Protozoa (b) Porifera (c) Annelida
(d) Mollusca (e) None of these
- (vi) In polychaetes the locomotory organ is:
(a) pseudopodium (b) neuropodium (c) notopodium
(d) parapodium (e) None of these
- (vii) Worms belonging to phylum platyhelminthes are commonly known as:
(a) round worms (b) ring worms (c) segmented worms
(d) earth worms (e) None of these
- (viii) Bipinnaria is a larval form of:
(a) Coelenterate (b) Polychaeta (c) Echinodermata
(d) Cestoda (e) None of these
- (ix) Closed type of circulatory system is found in:
(a) Platyhelminthes (b) Annelida (c) Porifera
(d) Arthropoda (e) None of these
- (x) The two common mosquito genera, Anopheles and Culex, can be easily identified by their:
(a) colour (b) flying speed (c) size
(d) sitting posture (e) None of these
- (xi) Sweat glands are epidermal glands and are found in:
(a) all birds (b) reptiles and mammals (c) mammals only
(d) birds and reptiles (e) None of these
- (xii) Sternum is absent in:
(a) mammals (b) birds (c) amphibians
(d) fishes (e) None of these
- (xiii) Amphioxus belongs to:
(a) Cephalochordata (b) Hemichordata (c) Urochordata
(d) Cyclostomata (e) None of these

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- (xiv) The urochordates or tunicates are marine animals, commonly known as:
(a) Sea cucumber (b) Sea squirts (c) Sea urchin
(d) Sea star (e) None of these
- (xv) Optic lobes are found in:
(a) fore brain (b) mid brain (c) hind brain
(d) medulla (e) None of these
- (xvi) The number of cervical vertebrae in most mammals is:
(a) two (b) four (c) nine
(d) eleven (e) None of these
- (xvii) Lymph hearts are absent in:
(a) fishes (b) amphibians (c) reptiles
(d) mammals (e) None of these
- (xviii) The lymph capillaries coming from intestinal villi are called:
(a) veins (b) lymph nodes (c) lacteals
(d) lymph duct (e) None of these
- (xix) How many caudal vertebrae are found in man?
(a) 1 – 2 (b) 3 – 4 (c) 5 – 6
(d) 7 – 8 (e) None of these
- (xx) The inner membrane of the two foetal membranes in reptiles, birds and mammals is called:
(a) chorion (b) amnion (c) peritoneum
(d) pericardium (e) None of these

PART – II

NOTE:	<p>(i) PART-II is to be attempted on the separate Answer Book.</p> <p>(ii) Attempt ONLY FOUR questions from PART-II, selecting at least TWO questions from EACH SECTION. All questions carry EQUAL marks.</p> <p>(iii) Extra attempt of any question or any part of the attempted question will not be considered.</p>
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SECTION – I

- Q.2.** (a) Write an essay on “Protozoa and diseases”. (10)
(b) What are coral reefs? Give an account of the various forms of coral reefs. (6)
(c) Coelenterates show some resemblances with Porifera. Discuss briefly. (4)
- Q.3.** (a) Give an account of the canal system in sponges. (10)
(b) What is adaptation? Briefly discuss parasitic adaptations in platyhelminthes. (6)
(c) Define the following terms: (4)
(i) Polymorphism (ii) Metamerism (iii) Parasitism (iv) Osmoregulation
- Q.4.** (a) Describe the water vascular system of Echinodermata. (10)
(b) Give an account of human diseases caused by nematodes. (7)
(c) What is conjugation? Briefly discuss its significance. (3)
- Q.5.** Write short notes on: (20)
(i) Torsion in gastropods (ii) Flame cells (iii) Spicules (iv) Coelom

SECTION – II

- Q.6.** (a) Write an essay on “Flight adaptations of birds”. (10)
(b) What is cleavage? Describe different types of cleavages, with example, found in chordata. (6)
(c) What are the functions of blood? (4)
- Q.7.** (a) What is placenta? Give classification of placenta in mammals according to the mode of implantation. (8)
(b) Describe various types of heart found in vertebrates. (8)
(c) Give the classification of vertebrate eggs according to the quantity of yolk they contain. (4)
- Q.8.** Write short notes on: (5+5+5+5)
(i) Uriniferous tubule of a mammal (ii) Neuron
(iii) Functions of the skin (iv) Structure of the bone
