

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MSc DEGREE EXAMINATION DECEMBER 2024
(First Semester)

Branch – ZOOLOGY

ANIMAL PHYLOGENY AND PALEONTOLOGY

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(10 × 1 = 10)

Module No.	Question No.	Question	K Level	CO
1	1	Who had said, the eleven hundred million years of archaean era there was no life. Hence the first part of archaean era is called Azoic era (a) Thomas Huxley (b) W.F. Libby (c) George Curvier (d) None of them	K1	CO1
	2	Name the earliest protists were probably amoeboid forms capturing food particles by (a) Phagocytosis (b) Encapsulation (c) Pinnocytosis (d) Vcuclocytosis	K2	CO1
2	3	Show correct statements in case of the Rotifers. (a) They do have the ciliated corona on their head. (b) They have five simple eyes that are light-sensitive and often are red. (c) They are sensitivity to light permits some species to be photostactic. (d) All of the above	K1	CO2
	4	Which one of the following is known as "Arrow worms," "Glass worms," and also "Tigers of the zooplankton." (a) Ectopracta (b) Endopracta (c) Chaetognaths (d) Nemetimnea	K2	CO2
3	5	Recall the period evolutionary biologists, agree that a group of amphibian like tetrapods the Labyrinthodonts, (a) Devonian (b) Carboniferous (c) Precambrian (d) Cambrian	K1	CO3
	6	Choose a Wrong statement from the followings with regards to Osteolepis. (a) It was a lobed-finned fish belonging to Crossopterygii (b) It lived about 375 mys of ago and breathed with gills as well as lungs (c) It Fins had not bony elements homologous to digits of tetrapod limbs (d) It was fishes of Devonian period with lobed fins having bones pattern of a tetrapod limb	K2	CO3
4	7	Demonstrate one of the slowest rates of evolution known among the reptiles as it has not changed greatly from species that were living 150 million years ago. (a) Squamata (b) Lepidosauria (c) Sphehodonta (d) Amphisbaenia	K1	CO4

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4	8	Label fossil man discovered in India. He is recognised as the next in line in the evolution of man. He is believed to have lived about 10 to 15 million years ago (a) Australopithecus (b) Loxodonta (c) Hominidae (d) Ramapithecus	K2	CO4
5	9	When was the first Public Indian Museum in Calcutta was opened? (a) 1814 (b) 1818 (c) 1914 (d) 1918	K1	CO5
	10	Tell components of Great Museum Exhibit Design (a) The Emotional Component. (b) The Intellectual Component. (c) The Physical Component. (d) All of them	K2	CO5

SECTION - B (35 Marks)Answer **ALL** questions**ALL** questions carry **EQUAL** Marks (5 × 7 = 35)

Module No.	Question No.	Question	K Level	CO
1	11.a.	Explain conceptual features of Precambrian period.	K2	CO1
		(OR)		
	11.b.	Compare the Fluorine and Nitrogen dating for determination of age of the fossils.		
2	12.a.	Develop the Phoronida- Affinities with Hemichordates.	K3	CO2
		(OR)		
	12.b.	Construct the evolutionary modification of Radula in vegetarian Snail.		
3	13.a.	Build the evolutionary aspect of the first fish appeared on Earth.	K3	CO3
		(OR)		
	13.b.	Organize the changes at anatomical level during transformation from Fishes to Amphibia.		
4	14.a.	Discover the concept of Thomas Huxley theory about the 'birds are dinosaurs'.	K4	CO4
		(OR)		
	14.b.	Examine Theories of Bipedalism.		
5	15.a.	Categorize major functions of the Museum.	K4	CO5
		(OR)		
	15.b.	Analyze Key skills for a Museum curators.		

SECTION - C (30 Marks)Answer **ANY THREE** questions**ALL** questions carry **EQUAL** Marks (3 × 10 = 30)

Module No.	Question No.	Question	K Level	CO
1	16	Construct the significance of Tertiary period.	K3	CO1
2	17	Examine how Cheatognatha is a separate Phylum by itselfes?	K4	CO2
3	18	Birds show monophyletic origin in their evolution. Develop evolutionary evidences.	K3	CO3
4	19	Dissect distribution and hypothetical phylogenetic tree of taxa leading to fossil hominids.	K4	CO4
5	20	Appraise how the exhibits are arranged on the basis of their functional aspect in a Museum?	K5	CO5