

<b>Name:</b>	
<b>Enrolment No:</b>	

## UNIVERSITY OF PETROLEUM AND ENERGY STUDIES

**End Semester Examination, December 2021**

**Programme Name:** B.Sc. (Hons.) Geology

**Semester III**

**Course Name:** Paleontology

**Time 3Hrs**

**Course Code:** PEGS 2026

**Max. Marks: 100**

**Nos. of page(s) 1:**

**Attempt all questions of all sections**

### SECTION A

**Maximum 150 words for each answer**

S. No.	Question	Marks	CO
1	Write the mode of preservation and fossilization.	4	CO1
2	Write the Mayr's biological concept of species.	4	CO2
3	Define Cretaceous–Paleogene extinction event Triassic–Jurassic extinction event	4	CO4
4	Describe the significance of fossils assemblages.	4	CO5
5	Write the most critical factors affecting chronostratigraphic significance in biostratigraphy.	4	CO2

### SECTION B

**Maximum 300 words for each answer**

6	Explain the morphological characteristics of 'Gastropods'. Discuss its applications in the field of paleontology.	10	CO3
7	Write short note on (ant two)- a. Taxonomic rank b. Major biological events with time c. Cambrian explosion	10 (5+5)	CO2
8	What is organic evolution? Explain the mechanism of organic evolution with paleontological evidences.	10	CO5
9	Analyze the difference between Phyletic Evolution and Punctuated Equilibrium. Use appropriate graphs and diagram in explanation.  Or Define Speciation and evaluate allotropic speciation with the help of suitable diagrams.	10	CO5

### Section C

**Maximum 550 words for each answer**

10	Evaluate the functional adaptation of Trilobite and write your opinion on the evolutionary changes noticed in the Trilobites.	20	CO3
11	What killed the Dinosaurs? Explain various theories available at present. What is your own opinion? Describe the future possibilities of such events.  Or Evaluate the most specular evolutionary changes (structural and physiographic) in the history of vertebrates, involve the emergence of new structures and way of life.	20	CO4