Name: **Enrolment No:**	

UPES

End Semester Examination, December 2024

Course: INDIAN STRATIGRAPHY
Semester: IIII
Program: B.Sc. Physics by Research
Time : 03 hrs.
Course Code: PEGS2044 **Max. Marks: 100**

Instructions:
I. Read the questions carefully and write appropriate answer.
II. Write correct unit in numerical after calculation.
III. Draw neat diagram with proper labeling to explain the answer

SECTION A
(5Qx4M=20Marks)

S. No.		Marks	CO
Q 1	**Mark true or false** i. The concept of stratigraphy involves studying the order and position of rock layers to understand Earth's history. ii. The principle of cross-cutting relationships suggests that a rock or fault that cuts across another rock layer is older than the layer it cuts through.	**2*2=4**	**CO1**
Q 2	**Correct the Statement** i. Biostratigraphy examines magnetic properties to correlate rock layers. ii. Lithostratigraphy dates rock layers using fossil content.	**2*2=4**	**CO2**
Q 3	**Fill in the Blanks** **i.** The Indo-Gangetic Plain is bordered by the _____ Mountains and _____ Plateau. **ii.** The _____ Ghats flank the eastern side Indian peninsula. **iii.** The _____ boundary marks the event between the Cretaceous and Tertiary periods.	**2+1+1=4**	**CO3**
Q 4	**i.** Name the volcanic rock linked to the end-Cretaceous extinction**.** **ii.** Name the index fossil for lower and upper Gondwana.	**2*2=4**	**CO4**
Q 5	i. Describe the characteristics of the Deccan Traps.	**1*4=4**	**CO4**

	OR ii. Describe the fossil content of the Jurassic rocks in Kutch region.		
SECTION B **(4Qx10M= 40 Marks)**			
Q.6	**i.** State the principle of cross-cutting relationships in stratigraphy. **ii.** Explain the significance of fossils in geological correlation.	**5*2=10**	**CO1**
Q.7	**i.** List two types of stratigraphy and describe their roles in understanding rock sequences. **ii.** Describe the use of index fossil in understanding the continental drift theory.	**5*2=10**	**CO2**
Q.8	**i.**Explain Khadar and Bhangar in Indo Gangetic Plains. **ii.** Illustrate the major divisions of extra peninsular India (Only Sketch).	**5*2=10**	**CO3**
Q.9	**i.** Describe the economic significance of mineral resources found in the Vindhyan Supergroup. **ii.** Discuss the classification schemes for Gondwana stratigraphy of India.	**5*2=10**	**CO4**
SECTION-C **(2Qx20M=40 Marks)**			
Q.10	**Answer any two** **i.**Explain the geological and stratigraphic significance of the Cuddapah Basin. **ii.** Discuss the role and importance of the Deccan Traps in India's stratigraphy. **iii.** Identify two major stratigraphic units in India's Peninsular region and discuss their importance.	**10*2=20**	**CO3**
Q.11	**i.** Discuss the economic and paleontological significance of the Lameta and Bagh formations. **ii.** Discuss the significance of the K-T and the P-C boundary in Indian stratigraphy.	**10*2=20**	**CO4**