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| Name: |  |
| Enrolment No: | |

End Semester Examination, December 2023

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| Program Name: M. Sc Petroleum Geoscience | Semester : I |
| Course Name: Micropaleontology | Time : 3 hrs |
| Course Code: PEGS7007 | Max. Marks: 100 |
| Nos. of page(s): 2 | |

Instructions: All questions are compulsory. Draw diagrams wherever necessary.

Attempt all questions of all sections

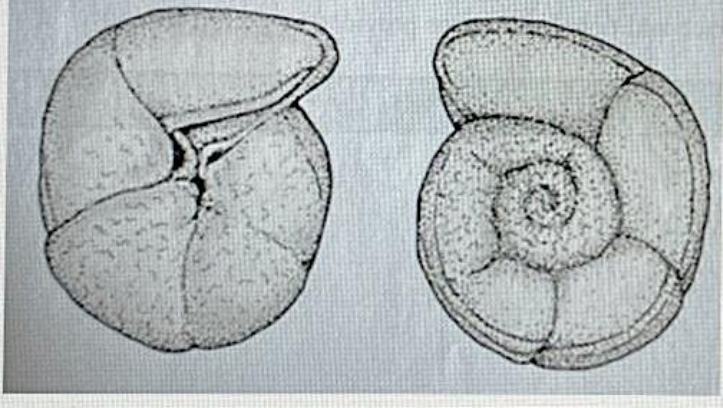
SECTION A [5Qx4=20marks]

| S. No. | SECTION A [5QX4=20MARKS] | Mar ks | CO |
|--------|--|-----------|-----|
| 1 | List the mode of preservation and fossilization. | 4 | CO1 |
| 2 | Discuss about foraminifera, and their role in marine ecosystems. | 4 | CO2 |
| 3 | Define Cretaceous–Paleogene extinction event Triassic–Jurassic extinction event. | 4 | CO4 |
| 4 | Describe the significance of fossils assemblages. | 4 | CO5 |
| 5 | Explain the most critical factors affecting chronostratigraphic significance in biostratigraphy. | 4 | CO2 |

SECTION B

[4QX10=40 marks]

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| 6 | (a) Discuss how does the foraminifera contribute to the formation of marine sediments. (b) Explain the process of foraminiferal shell accumulation in sedimentary environments. | 5+5= 10 | CO3 |
| 7 | (a) Evaluate the significance of foraminifera in paleoceanography and paleoclimatology. (b) Discuss how does their remains provide insights into past environmental conditions. | 10 (5+5) | CO2 |
| 8 | Describe the distinctive features of radiolarian skeletons and how they contribute to their classification. | 10 | CO5 |
| 9 | (a) Identify the fossil in the fig below. Describe their life cycle, including reproductive strategies and mode of locomotion. | 2+8= 10 | CO5 |



OR

Discuss the methods and techniques employed in the extraction and analysis of microfossils from sedimentary rock samples.

Section C

[5Qx4=20marks]

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|------------------|---|-----------------------------------|-------------------|
| <p>10</p> | <p>(a) Explain about dinoflagellates, and in which environments are they commonly found (b) Describe the morphology and characteristics of dinoflagellates. (c) Discuss the ecological significance of dinoflagellates, including their role in marine food webs, climate and paleoenvironment relationships.</p> | <p>5+10 +5= 20</p> | <p>CO3</p> |
| <p>11</p> | <p>Analyze the methods and techniques employed in the extraction and analysis of microfossils from sedimentary rock samples.</p> <p>OR</p> <p>Discuss any current research or discoveries related to foraminifera and their implications for understanding of (i) marine ecology, (ii) paleoenvironments, (iii) petroleum exploration.</p> | <p>20</p> | <p>CO4</p> |