Name:

Enrolment No:



UNIVERSITY OF PETROLEUM AND ENERGY STUDIES

End Semester Examination, December 2021

Programme Name: B.Tech. GSE

Course Name: Applied Micropaleontology

Course Code: PEGS 4008

Semester VII Time 3 Hrs.

Max. Marks: 100

Attempt all questions from all sections

SECTION A

Maximum 60 words for each answer

| S. No. | Question | Marks | СО |
|----------------------------------|--|-------|----------|
| 1 | Provide your views on fossil assemblage vs. index fossil. | 4 | CO2 |
| 2 | Write short notes on morphometric and particle analysis. | 4 | CO6 |
| 3 | What is acme zone? Define it with diagrams. | 4 | CO4 |
| 4 | Provide your views on fossil assemblage vs. index fossil. | 4 | CO2 |
| 5 | Write applications of Diatoms in environmental and earth sciences | 4 | CO3 |
| | SECTION B | | |
| Maximum 200words for each answer | | | |
| 6 | Write shorts notes on (any two)- | 10 | CO3 |
| | a. Acritarch | (2*5) | |
| | b. Radiolarian | | |
| | c. Ostracoda | | |
| 7 | Describe the wall structure and composition of fossil foraminifera. Explain the growth and | 10 | CO3 |
| | development of the chamber of foraminifera with the help of suitable diagram. | | |
| 8 | Describe quantitative biostratigraphy with the help of different methods and biostratigraphy | 10 | CO6 |
| | events. | | |
| 9 | What are the causes are responsible for variation or errors in vitrinite reflectance | 10 | CO4 |
| | measurements? Provide your recommendations to remove errors of the data or how can an | | |
| | explorationists better use the data. | | |
| | Or | | |
| | Describe stable isotope stratigraphy with application in micropaleontology. | | |
| | SECTION-C | | <u> </u> |
| | Maximum 500 words | | |
| 10 | Define Palynofacies with its applications in oil and gas industry. Explain Kerogen analysis with | 20 | CO4 |
| 10 | various thermal maturation scales. | 20 | - |
| 11 | | 20 | COF |
| 11 | Explain Shaw's graphic correlation methods with suitable diagrams. Describe the correlation in | 20 | CO5 |
| | different sedimentation rate conditions in two different geological sections. Or | | |
| | What is biostratigraphy? Describe quantitative biostratigraphy with the help of different | | |
| | | | |
| | methods and biostratigraphy events. | | 1 |