Name: **Enrolment No:**	

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, December 2022

Course: Micropaleontology **Semester: I**
Program: M.Sc., Petroleum Geosciences **Time : 03 hrs.**
Course Code: PEGS-7007 **Max. Marks: 100**
No of pages :02

Instructions: Carefully read the questions before answer. All the questions are compulsory in section A and Section B. *(Q. Number 6, 7 and 8 compulsory in Q.9 answer one Q.9a OR Q.9 b)* In section C (Q.10 is compulsory and Q.11 answer one Q 11a OR Q,11 b)

SECTION A **(5Qx4M=20Marks)**

S. No.			CO
Q 1	Explain the application of sample mapping and sample processing in micropaleontology.	**4**	**CO1**
Q 2	Fill in the blanks with suitable answer: I. The foraminifera chamber arranged in a single plain is called as……. Form II. The skeleton of Nassellaria radiolarians are recognized by its …….. symmetry III. The frustules of diatoms are frequently dotted with minute holes described as …….. IV. The microfossil cysts have two walls- an inner wall and an outer wall is called as…….cysts	**4**	**CO2**
Q 3	Distinguish between the following terms: a) Devonian and Silurian b) Tripylea and Polycystina	**4**	**CO1**
Q 4	Select correct choice (True or False) for the following questions: a. The Golgi is cell for secretion with eight cup shaped membrane b. The Eutrophic environment is consisting high nutrient content c. A period unit of time shorter than an era but longer than epoch d. The Chambers are arranged along a vertical axis is called Biserial form	**4**	**CO2**
Q 5	Chose the correct answer from the given (MCQ) choice : a. Which are the most important evidence in micropaleontology. a. **Body fossil** **b. Trace fossil** **c. Both** **b.** An insect stuck in amber is an example of what type of fossil **a. Original remain** **b. Trace** **c. Mold** **c.** The moment of microfossil is called as ……..: **a. Vagile** **b. Motile** **c. Both** d. The fossil depositions environment with high nutrient's and depth from 15-20cm. **a. Mesotrophic** **b. Oligotrophic** **c. Eutrophic**	**4**	**CO2**

SECTION B (4Qx10M= 40 Marks) ***(Q. Number 6, 7 and 8 compulsory in Q.9 answer one Q.9a OR Q.9 b)***			
Q 6	Discuss the geological range, morphological classification and application of Diatom fossil studies in petroleum geoscience.	**10**	**CO3**
Q 7	Describe the types, morphology and depositional environment of conodonts microfossil.	**10**	**CO3**
Q 8	Explain the following terms in context with morphology and test composition; Benthonic and planktonic foraminifera.	**10**	**CO4**
Q 9	a). Describe in brief geological age, classification and significance of Radiolarian fossil. **OR** b) Explain the following terms in context with evolution of morphology and geological age of Architarchs.	**10**	**CO4**
SECTION-C **(Q.10 is compulsory and Q.11 answer one Q 11a OR Q,11 b) 2Qx20M=40 Marks)**			
Q 10	Explain in brief the consequence and application of following terms in palynology and petroleum exploration; shape, size, facies, aperture, wall structure of pollen and spores.	**20**	**CO5**
Q.11	a) Describe the procedure, principle and application of SEM – Stereomicroscope and Isotopic method of analysis in micropaleontology. **OR** b) Explain in brief the morphological classification, ecology, test composition and geological time range of Ostracods and Nano planktons.	**20**	**CO6**