



Roll No.

**PRESIDENCY UNIVERSITY
BENGALURU**

SCHOOL OF ENGINEERING

SUMMER TERM/ MAKE UP END TERM EXAMINATION

Semester: Summer Term 2019

Date: 22 July 2019

Course Code: PE A 208

Time: 3 Hours

Course Name: Applied Geology II

Max Marks: 100

Program & Sem: B.Tech & IV Sem (2015 Batch)

Weightage: 40%

Instructions:

(i) **Answer all the questions**

Part A

Answer **both** Questions. **Each** question carries **ten** marks. (3QX10M=30M)

1. Explain the components of an ideal petroleum system with necessary diagrams.
2. What is the function of geological traps? Discuss different types of traps with suitable diagrams. (3+7)
3. Write short note on Reservoir rock(s) encountered in (a) Mumbai Offshore Basin and (b) Cambay Basin. (5+5)

Part B

Answer **both** the Questions. **Each** question carries **fifteen** marks. (2QX15M=30M)

4. (a) Define fossil? (b) List the applications of micropaleontology and palynology in hydrocarbon exploration. What are the uses of foraminifera in oil industry? (2+10+3)
5. (a) How is petroleum generated? (b) Explain diagenesis, catagenesis and metagenesis processes with suitable diagram. (3+12)

Part C

Answer **both** the Questions. Question carries **twenty** marks. (2QX20M=40M)

6. (a) Explain the mechanism of sedimentary basin formation with diagram. (b) How are the sedimentary basins categorized in India? Explain with at least two examples in each category. (10+10)
7. (a) Explain different types of porosities present in reservoir rocks. (b) What is the difference between 'total porosity' and 'effective porosity'? (c) Define 'man-made permeability'? Is there any application of 'man-made permeability' in oil industry? Discuss. (6+6+8)

