

### IDNO.

# PRESIDENCY UNIVERSITY, BENGALURU SCHOOL OF ENGINEERING

Weightage: 40 % Max Marks: 40 Max Time: 2 hrs. 9 May 2018, Wednesday

### **ENDTERM FINAL EXAMINATION MAY 2018**

Even Semester 2017-18 Course: PET 207 Oil and Gas Exploration IV Sem. Petroleum

### Instructions:

- (i) Read the question properly and answer accordingly.
- (ii) Question paper consists of 3 parts.
- (iii) Scientific and Non-programmable calculators are permitted.

### Part A

(3 Q x 4 M = 12 Marks)

- 1. Explain how primary electromagnetic field travels from the transmitter coil to the receiver coil with suitable diagram.
- 2. Briefly discuss the 'Limitations of Electromagnetic Surveying'.
- 3. Discuss 'Attenuation of Seismic Energy along ray paths' with suitable diagram.

### Part B

(3 Q x 6 M = 18 Marks)

- 4. Explain 'Fixed Separation Systems' of airborne electromagnetic surveying with suitable diagram.
- 5. Explain the relationship between 'Seismic wave velocity and density of rock' with suitable diagram.
- 6. List the 'Applications of Seismic Reflection Surveying' in Oil and Gas industry.

#### Part C

(1 Q x 10 M = 10 Marks)

7. Explain 'CMP gather in seismic processing' with suitable diagrams.



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Weightage: 20% Max Marks: 20 Max Time: 1 hr. 27 March Tuesday 2018

**TEST - 2** 

**SET B** 

Even Semester 2017-18 Course: PET 207 Oil and Gas Exploration

IV Sem. Petroleum

### Instruction:

- (i) Read the questions properly and answer accordingly
- (ii) Answer all questions

Part A

 $(2 Q \times 2 M = 4 Marks)$ 

- 1. Mention at least four applications of Magnetic Survey.
- 2. Briefly discuss 'Ground Magnetic Survey' method.

Part B

(2 Q x 4 M = 8 Marks)

- 3. Explain working principle of 'Fluxgate Magnetometer'.
- 4. Briefly discuss about 'Optically Pumped Magnetometer'.

Part C

(1 Q x 8 M = 8 Marks)

5. Explain (a) 'Diurnal Variation Correction' and (b) 'Geomagnetic Correction'. [4 + 4]



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Weightage: 20 % Max Marks: 20 Max Time: 1 hr. 22 Feb Thursday 2018

TEST - 1

Even Semester 2017-18 Course: PET 207 Oil and Gas Exploration IV Sem. Petroleum

### Instruction:

- (i) Read the question properly and answer accordingly
- (ii) Question paper consists of 3 part
- (iii) Scientific and Non-programmable calculators are permitted

Part A

 $(3 Q \times 2 M = 6 Marks)$ 

- 1. Explain 'Prospect' and 'Play'.
- 2. Mention at least 4 advantages of geophysical studies.
- 3. Explain 'Drift Correction' of Gravity Survey with appropriate figure.

### Part B

(2 Q x 4 M = 8 Marks)

- 4. Explain 'Latitude Correction' of Gravity Survey with appropriate figure.
- 5. Mention at least 4 applications of Gravity Survey.

#### Part C

 $(1 Q \times 6 M = 6 Marks)$ 

6. Explain principle of stable gravimeter operation with appropriate figure.