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**PRESIDENCY UNIVERSITY
BENGALURU**

**SCHOOL OF ENGINEERING
MID TERM EXAMINATION - NOV 2023**

Semester : Semester V- 2021

Course Code : PET3005

Course Name : Sem V - PET3005 - Multilateral and Horizontal Well Technology

Program : B. TECH

Date : 3-NOV-2023

Time : 11:30AM - 1:00PM

Max Marks : 50

Weightage : 25%

Instructions:

- (i) Read all questions carefully and answer accordingly.
- (ii) Question paper consists of 3 parts.
- (iii) Scientific and non-programmable calculator are permitted.
- (iv) Do not write any information on the question paper other than Roll Number.

PART A

ANSWER ALL THE QUESTIONS

(5 X 2 = 10M)

1. Enumerate the objective of Horizontal wells. (CO1) [Knowledge]
2. State the advantages of liner (CO1) [Knowledge]
3. List the five methods of drilling horizontal wells. (CO1) [Knowledge]
4. State the primary application of Relief wells. (CO1) [Knowledge]
5. Define skin factor. (CO1) [Knowledge]

PART B

ANSWER ALL THE QUESTIONS

(2 X 10 = 20M)

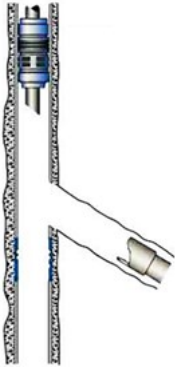
6. "MPD can be used in situations where traditional drilling techniques would not be effective or would pose a risk to the wellbore." Explain the above statement with the help of a suitable diagram and state the advantages of MPD techniques. (CO1) [Comprehension]
7. "Once the geological aspects of horizontal wells have been considered the development phase starts". Discuss the above statement enumerating the future steps involved in development of horizontal well. (CO2) [Comprehension]

PART C

ANSWER THE FOLLOWING QUESTION

(1 X 20 = 20M)

8. With reference to the figure given below, answer the following questions:



- a. Identify the TAML Level of the completion.
- b. List the application of the identified completion.
- c. State the limitations of the identified completion.
- d. Describe the configurations of the identified completions.
- e. State the advantages and disadvantages of the identified completions.
- f. State the drilling technique used for drilling the identified completion.

(CO2) [Application]