

Roll No



**PRESIDENCY UNIVERSITY
BENGALURU**

**SCHOOL OF ENGINEERING
END TERM EXAMINATION - JUN 2023**

Semester : Semester VI - 2020

Course Code : PET2018

Course Name : Sem VI - PET2018 - Integrated Field Development and Planning

Program : PET

Date : 16-JUN-2023

Time : 9.30AM - 12.30PM

Max Marks : 100

Weightage : 50%

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

(10 X 3 = 30M)

1. The bathtub curve is generated for failure frequency. Describe the statement. (CO3) [Knowledge]
2. Most of the money spent on the field will be on operating expenditure (OPEX). List different types of cost included in OPEX. (CO3) [Knowledge]
3. List the advantages of horizontal well over vertical well. (CO2) [Knowledge]
4. Define availability constraints. List its importance, while managing the surface facilities. (CO3) [Knowledge]
5. Define porosity. List its types. (CO1) [Knowledge]
6. Describe data synthesis while performing reservoir management. (CO4) [Knowledge]
7. Describe the essence of production testing. (CO2) [Knowledge]
8. Define breakdown and preventive maintenance. (CO3) [Knowledge]

9. State the reservoir management philosophies.

(CO4) [Knowledge]

10. Name any three appraisal tools.

(CO3) [Knowledge]

PART B

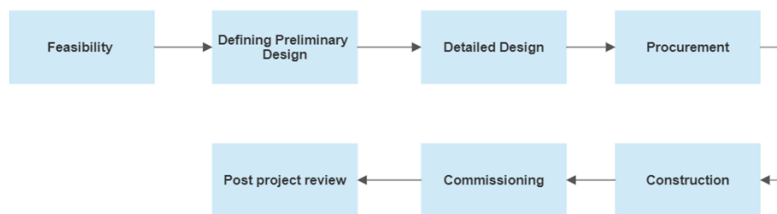
ANSWER ALL THE QUESTIONS

(2 X 15 = 30M)

11. Reservoir management requires a deep knowledge of the reservoir that can be achieved only through its characterization by a process of acquiring, processing and integrating several data. Justify the statement.

(CO4) [Comprehension]

12. A typical project can be summarized with the help of a flow chart as given below.



Explain the phases in context of reservoir field development.

(CO3) [Comprehension]

PART C

ANSWER ALL THE QUESTIONS

(2 X 20 = 40M)

13. As a petroleum engineer, you have decided to manage a reservoir in your allocated field. Unfortunately, you realize your reservoir management plan fails for various reasons. Elucidate the probable reasons for the failure of reservoir management.

(CO4) [Application]

14. When preparing a Field Development Program (FDP), the production operations department will become involved in determining how the field will be operated, with specific reference to areas viz., production, manning, logistics, communications and cost control. Illustrate the statement.

(CO3) [Application]