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UNIVERSITY OF PETROLEUM AND ENERGY STUDIES

End Semester Examination, April, 2017



Program Name: B.Sc/Petroleum Operations.
Course Name : Introduction to Drilling Operations.
Course Code : PTEG 312
No. of page/s:02

Semester – VI
Max. Marks : 100
Duration : 3 Hrs

Section A: All questions are compulsory.

(5*4M=20Marks)

- 1) Differentiate between single stage cementing operation and multi stage cementing operation?
- 2) Write short notes on single tubing completion and multilateral completion?
- 3) Draw the flow diagram of a “Mud Circulation System”?
- 4) Explain about Top Drive and Kelly Drive?
- 5) State any ‘SEVEN’ problems that can occur during drilling and explain their effect on the drilling process?

Section B: All questions are compulsory.

(5*8M=40Marks)

- 1) Discuss in detail about the effect of drilling fluid properties on “Rate of Penetration”?
- 2) Explain in detail about different types of drilling fluids?
- 3) Differentiate between primary, secondary and tertiary well control?
- 4) Define the following terms
 - a) Well Head.
 - b) H.W.D.P.
 - c) Casing Hanger.
 - d) Blind RAM
 - f) TSP Bits.
 - g) Blooey Line.
 - h) Cement Channeling.
 - i) Deadline Anchor.
- 5) Explain in detail about the procedure of killing a well using “Driller’s Method”?

SECTION C:

(2*20M=40 Marks)

Instructions: i) Question 1 is Compulsory.

ii) Answer any one question from 2 and 3.

- 1)
 - a) Write short notes on well control equipment? (5M)
 - b) Explain about SIDPP and SICP? (5M)
 - c) State the Principal functions of different types of casing string ? (10M).
- 2)
 - a) List and explain the importance of different offshore platforms? (10M).
 - b) Explain in detail about the procedure of killing a well using “Wait and Weight Method”? (10M)

3)

- a) Mention any 6 properties of a drilling fluid and explain their importance? (10M).
- b) List and describe the function of each of the component parts of the hoisting system on a conventional land drilling rig? (10M)