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C20-PET–304

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BOARD DIPLOMA EXAMINATION, (C-20)

OCTOBER/NOVEMBER—2023

DPET – THIRD SEMESTER EXAMINATION

DRILLING AND WELL COMPLETIONS

Time : 3 hours] [*Total Marks* : 80

PART—A 3×10=30

Instructions : (1) Answer **all** questions.

(2) Each question carries **three** marks.

(3) Answers should be brief and straight to the point and shall not exceed five simple sentences.

1. Define *(a)* tripping time and *(b)* drilling time.

2. What are the fuctions of a floor man?

3. Write about the fixed cutter bit.

4. What is mean by electrical stability?

5. List three applications of cementation.

6. What is production casing?

7. Explain borehole communication.

8. Define well testing.

9. Define perforation technique.

10. Explain about the packer fluids.

PART—B

8×5=40

Instructions : (1) Answer *any* **five** questions.

(2) Each question carries **eight** marks.

(3) Answers should be comprehensive and criterion for valuation is the content but not the length of the answer.

11. *(a)* Explain about the circulation system.

(OR)

(b) Explain about the various drilling rig types.

12. *(a)* Explain about the types of drilling fluids classification systems.

(OR)

(b) Explain the material balance equations of drilling fluids.

13. *(a)* Explain about the physical properties of cements.

(OR)

(b) Explain in detail about the re-establishing the pay zone.

14. *(a)* Explain about the main types of remedial action for sand control.

(OR)

(b) Explain the method of borehole connection.

15. *(a)* Explain about the surface controlled safely valves.

(OR)

(b) Explain about the circulating devices.

PART—C

10×1=10

Instructions : (1) Answer the following question.

(2) Each question carries **ten** marks.

(3) Answers should be brief and straight to the point and shall not exceed five simple sentences.

16. Analyse the situation when we are performing the secondary cementation process.

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