

## 7488

# BOARD DIPLOMA EXAMINATION, (C-20) OCTOBER/NOVEMBER—2023

### **DPET - FOURTH SEMESTER EXAMINATION**

### WELL LOGGING AND FORMATION EVALUATION

Time: 3 Hours [ Total Marks: 80

#### PART—A

 $3 \times 10 = 30$ 

**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.** What is cementation factor?
- **2.** Write a short note on well logs.
- **3.** Define the term coring.
- **4.** Write a short note on side wall coring.
- **5.** Write about the uses of electrical logging.
- **6.** Write a short note on resistivity logging.
- **7.** Write about bulk density.
- **8.** List out the uses of density tools.
- **9.** Write down the applications of image logs.
- **10.** Write a short note on variable density log.

**PART—B** 8×5=40

**Instructions:** (1) Answer **all** 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 briefly about well log header.

(OR)

- (b) Explain about bore hole temperature and bore hole pressure.
- **12.** (a) Explain about the types of coring methods.

(OR)

- (b) Explain about the analyzation of core samples.
- **13.** (a) Explain about conventional resistivity logs.

(OR)

- (b) Explain about the origin of self-potential logging with a neat sketch.
- **14.** (a) Explain briefly about neutron porosity logs and its applications.

(OR)

- (b) Explain briefly about sonic logs and its applications.
- **15.** (a) Explain about the procedure of calliper logging.

(OR)

(b) Discuss about the types of cased hole logs.

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**Instructions:** (1) Answer the following question.

- (2) The question carries **ten** marks.
- (3) Answer should be comprehensive and the criterion for valuation is the content but not the length of the answer.
- **16.** How we measure the porosity of the formation? Explain the methods suitable to measure porosity.

