



Roll No.

**PRESIDENCY UNIVERSITY
BENGALURU**

SCHOOL OF ENGINEERING

TEST - 1

Even Semester: 2018-19

Course Code: Offshore Engineering Technology

Course Name: PET 302

Programme & Sem: B.Tech Petroleum Engineering, VIII Semester

Date: 06 March 2019

Time: 1 Hour

Max Marks: 40

Weightage: 20%

Instructions:

- (i) *Read the question properly and answer accordingly.*
- (ii) *Question paper consists of 3 parts.*
- (iii) *Scientific and Non-programmable calculators are not permitted.*

Part A

Answer **both** the Questions. **Each** question carries **four** marks. (2Qx4M=08)

1. Draw any four offshore floating production units.
2. Describe the motions of a floating vessel.

Part B

Answer **both** the Questions. **Each** question carries **six** marks. (2Qx6M=12)

3. Explain the taut mooring line and catenary mooring line systems with diagrams.
4. How bottom supported units are different from floating units? Explain the transportation process with respect to offshore oil and gas industry.

Part C

Answer **both** the Questions. **Each** question carries **ten** marks. (2Qx10M=20)

5. Write a short note on Semisubmersible unit. Explain how compromise is made between stability and heave reduction in case of a semisubmersible
6. How deck loads are supported in Fixed platforms and in Floating structures? Write a short note on Drill Ships.



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SCHOOL OF ENGINEERING

TEST - 2

Even Semester: 2018-19

Course Code: PET 302

Course Name: Offshore Engineering Technology

Program & Sem: B.Tech & VIII Sem (DE) Group-I

Date: 16 April 2019

Time: 1 Hour

Max Marks: 40

Weightage: 20%

Instructions:

- (i) *Read the question properly and answer accordingly.*
- (ii) *Question paper consists of 3 parts.*
- (iii) *Scientific and Non-programmable calculators are permitted.*

Part A

Answer **both** the Questions. **Each** question carries **four** marks.

(2Qx4M=08)

1. What does IACS stands for? What is the Role of IACS? List any two societies under IACS.
2. What are the two common wire rope constructions? Mention their properties.

Part B

Answer **both** the Questions. **Each** question carries **six** marks.

(2Qx6M=12)

3. What are the types of turret mooring? Draw diagram of each.
4. Explain the mooring lines system.

Part C

Answer **both** the Questions. **Each** question carries **ten** marks.

(2Qx10M=20)

5. What is dynamic positioning? Explain the reference system of DPS.
6. Explain different types of TLP's with neat diagrams.



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SCHOOL OF ENGINEERING

END TERM FINAL EXAMINATION

Even Semester: 2018-19

Course Code: PET 302

Course Name: Offshore Engineering Technology (DE)

Program & Sem: B.Tech & VIII Sem (Group-I)

Date: 23 May 2019

Time: 3 Hours

Max Marks: 80

Weightage: 40%

Instructions:

- (i) *Read the question properly and answer accordingly.*
- (ii) *Question paper consists of 3 parts.*
- (iii) *Scientific and Non-programmable calculators are not permitted.*

Part A

Answer **all** the Questions. **Each** question carries **ten** marks.

(2Qx10M=20M)

1. Write the correct answer.

a) In which one of the following offshore platforms, the condition of the sea floor is a vital consideration?

A) SPAR

B) TLP

C) GBS

D) FPSO

b) Select the out one out.

A) Wind

B) Wave

C) Current

D) Tides

c) Select the odd one out.

A) Chains

B) Ropes

C) Anchors

D) Winch

d) Select the odd one out

A) Column

B) Pontoon

C) Bracing

D) Moonpool

e) DPS cannot control

A) Surge

B) Sway

C) Yaw

D) Heave

2. Match the following:

- | | |
|--------------|----------|
| 1) Condeep A | A) Bow |
| 2) Fore | B) Stern |
| 3) Aft | C) MRU |
| 4) DPS | D) TLP |
| 5) Tendons | E) GBS |

Part B

Answer **all** the Questions. **Each** question carries **ten** marks. (4Qx10M=40M)

- Describe spread mooring and draw its patterns.
- What does 6×19 class and 6×37 class means?
 - Mention advantages of each.
 - How Warrington construction differ from Seale construction?
- Explain Guyed tower with the neat diagram.
- What are the other non-technical considerations of developing novel offshore structures?

Part C

Answer the question. **The** question carries **twenty** marks. (1Qx20M=20M)

- Explain Dynamic Positioning System with its control system and referencing system.