



WEDNESDAY 20th NOVEMBER 2019 - MORNING

OFFSHORE SUPPORT INDUSTRY

Time allowed – three hours

Answer any FIVE questions – all questions carry equal marks

Please read the questions carefully before answering

1. Explain **FOUR** of the following terms/acronyms and their use.
 - i. Joystick
 - ii. Marine Riser
 - iii. Towmaster
 - iv. ECA
 - v. Saturation Diving
 - vi. BOP

2. Explain the meaning and relevance of **ALL** the following on a vessels specification sheet;

DNV ✕ 1A1, Supply Vessel, SF, TUG, EO, DYNPOS-AUTR, Comf-V(3), Clean Design, NAUT OSV (A), DK(+), HELDK, OILREC, ICE (C)

3. Answer **BOTH** parts of the question.
 - a) Describe using diagrams to support your answer, the general arrangement and operational concept of a jack-up drilling rig.
 - b) Discuss and compare the operational parameters of these units with other MODUs.

4. Explain the primary differences between DP Classes 1, 2 and 3 and give examples of some of the types of vessels within each DP Class.

5. A range of cargoes are transported by supply vessels to offshore installations. Describe **FIVE** of these cargoes and provide a description of their use, methods used for their safe carriage and methods used for transfer to and from the installation.

PLEASE TURN OVER

6. Discuss the advantages and disadvantages for an offshore oil company in operating their own chartered supply vessel fleet in comparison to contracting their cargo requirements to a marine logistics company.

7. It has been suggested that the offshore renewable energy industry could create a rising demand for an existing OSV fleet supporting oil and gas installations. Discuss this suggestion and compile conclusions for a report to your existing OSV operating clients.

8. Provide an explanation of **FOUR** standard Charter/Contract forms regularly used in offshore support.