

#### General comment

A large variation on the standard of answers, and a drop in the overall pass rate to 50%.

While it is clear that a number of students have experience of the offshore industry and handle the exam very competently, there are a significant number who were unable to show their understanding of the technical detail of the range of vessels operating within the OSV industry, and indeed the required level of knowledge of the OSV industry more broadly.

#### Question I

'Confidence in the oil price is crucial for sustaining growth in offshore production.' Discuss this statement.

To answer this question effectively students needed to explain the basic economic concepts relating a stable oil price with confidence to plan exploration and production campaigns.

Demonstrating awareness of oil price movements/links with global economic growth/specific examples (China/EU)/ understanding fundamentals/security threats/OPEC policy/capex of frontier offshore developments/escalation of production costs/awareness of high 'break-even' costs

Extra marks were awarded for recognition of industry initiatives ie. The Wood Report – Maximising Economic Recovery in UKCS (MER) and providing Industry examples, also for discussing broader issues ie. Climate change lobby and renewable energy.

Understanding of current issues such as effect of sanctions against Russia and development of Shale oil/unconventional oil also attracted additional marks.

Although there were a few well answered questions, many answers had insufficient detail.

# Question 2

Explain FOUR of the following terms.

- i) AHC Crane
- ii) ABS/DNVGL/LR
- iii) IRM
- iv) ISM Code
- v) LARS
- vi) MEG



The second most popular question. As is common with multi-choice/definition type questions those with knowledge of the subject scored well.

a) AHC Crane Active Heave Compensation Crane.
b) Classification Societies ABS - American Bureau of Shipping DNVGL – Det Norse Veritas Germanischer Lloyd

- LR Llyod's Register
- c) IRM
- Inspection Repair and Maintenance.
- d) ISM Code International Safety Management Code.
- e) LARS

Launch and Recovery System

f) MEG Mono-ethylene glycol

# Question 3

Discuss the principal influences that impact on OSV operations depending on the regions of the world they may be operating in. Use the world map provided to support your answer.

A generally well answered question and achieving the highest pass mark.

The question is looking firstly for a description of the various areas and the influences their geographical situation has on the conditions encountered, and then from that a description of the types of vessel required to support operations, highlighting the high differential in required specification and operational procedures between geographical areas.

Understanding of environmental weather conditions = Polar Regions, Harsh Weather, Moderate Waters and Benign Waters was expected.

Also additional marks were awarded for discussion on - Remote areas; Political regime (Regulatory/Cabotage/Political unrest); Environmental policies - (ie emission control areas); Crime & Law enforcement – (Corruption/Piracy).



## Question 4

The specification of AHTS has developed significantly over recent years. State the principal features that would appear on a vessel specification sheet for what is a high specification AHTS. Discuss the more specialised activities and regions where such a vessel is employed.

Students were expected to produce a comprehensive list of relevant items as would be expected in a vessel specification sheet ie. Principal dimensions; Power; Bollard Pull; Thrusters; Deck Cranes;

Winch Package details; ROV; Cargo Capacity; Deck Area.

Students were expected to demonstrate awareness of the considerable variation between relatively straightforward operations in relatively shallow water and the requirements of extended tows and operations in deep water frontier locations with complex anchor scopes.

They were expected to demonstrate awareness of the differential in vessel specification in order to competently and efficiently undertake the technical operations involved, particularly emphasising the differential in vessel equipment and capacity.

#### Question 5

Answer BOTH parts of the question.

a) Describe the general arrangement and operational concept of a jack-up drilling rig. Use diagrams to support your answer;

### b) Discuss the significance of these units within the broader MODU definition.

This question was not particularly well answered and some of the drawings had insufficient detail. A diagram should provide sufficient detail to demonstrate understanding of the operating concept. ie. sketches showing floating and jacked-up condition.

Description should include details relating to: Wet/Dry tows; general construction; drilling derrick & helipad locations; operational terms – Pre-load/ballasting/air gap, punch through etc.

Current details relating to fleet size, operational water depths, comparison with semi-sub and drill ships should be included.

### Question 6

## Discuss the range of crane operations regularly undertaken within the offshore industry.

This was the least popular question and there was a considerable variation in how it was tackled with some students clearly showing good knowledge of the range and detail of operations.

The range of crane operations should include – Cargo work/Man-Riding/Subsea Lifting/Heavy Lifting – Construction; Transportation ie. cranes and hydrostatic(dry towing).



Recognition of the requirement for comprehensive safety procedures, pre-planning, testing certification, auditing should be demonstrated.

Awareness of AHC cranes/DP system integration/redundancy (DP2/DP3) and computerised ballasting systems should be shown.

Some students who discussed broader concepts such as trends towards globalisation and modularisation gained extra marks.

## Question 7

### Discuss the various ways in which maintenance days can be incorporated in a charterparty.

This was not a popular question (second least popular).

Students were expected to demonstrate awareness that OSV contracts differ significantly from CPs used in the broader shipping industry and that the nature of the offshore industry, work-roles, operational practices require industry-specific solutions.

Explaining the fundamental difference between paid/unpaid and accruing variations was important as was understanding the need for accruing days – ie. drydocking or extended periods of repair etc.

Students were expected to know the 6 most common ways to handle maintenance days.

Additional marks were earned by those students expanding and providing examples of the use of maintenance days rather than simply stating the common terms.

#### Question 8

#### Describe the range of services a broker within the offshore industry can offer.

The most popular question, but the quality of answer varied considerably, the overall pass rate was 50%.

Although some students clearly had experience of offshore broking and answered well, there were two themes that were noted throughout many of the papers:

- (i) Heavy concentrating on chartering and lack of detail on other aspects of broker services s&p; newbuild; research; market reports; performance monitoring; consultancy; dispute resolution etc.
- (ii) Emphasise on broking services as encountered within the broader shipping industry and significant lack of detail on the services/knowledge required specific to the offshore industry.