OFFSHORE SUPPORT INDUSTRY

July 2020

EXAMINERS REPORT

Question 1.

Students were expected to produce a drawing of a semi-submersible drilling rig and the sketch should provide sufficient detail to demonstrate understanding of the operating concept.
Sketch should provide sufficient detail to demonstrate understanding of the basic structure.
ie. sketches showing pontoons, columns, deck, derrick and topside modules.
Detail should include:

Mooring arrangements and that some rigs can be self-propelled with thrusters.
Floating structure, can be ballasted to obtain optimum draft between transport and erational modes.
Towed to location (Wet Tow) or transported over longer distances by Heavy Lift vessels (Dry Tow).
Anchors deployed/recovered by AHTS.
Operation in deeper water than Jack-up rigs.
Modern semis operating in water depths up to 3,500m

Question 2.

(i) Mutual Hold Harmless Agreements

Important to understanding that these are used to cover Owners in cases where the knock/knock clause only extends to Charterers and not their contractors/sub contractors.
Few students addressed this issue clearly.

(ii) Knock for Knock Principle

Understanding that this basically means that each party to the contract is responsible for any and all damage to their own property and equipment irrespective to whether it was caused by the other party.
Most students had a reasonable understanding of this concept.

(iii) On/Off hire surveys

Independent, almost always required - purpose is primarily to take an accurate reading of fuel, lubes and water on board at time of delivery and redelivery.
Students should also explain other aspects such as tank cleaning and split of survey costs.

(iv) Early Termination

Most students could explain termination of the contract prior to the contracted firm period. However the difference between ‘for cause’ and ‘without cause’ with examples should also be explained.

(v) Breakdown

Important to understanding the issues associated with whether a vessel that can still operate safely and if the breakdown has prevented the vessel from undertaking its primary role.
Also situations relating to charter duration – variation in right to terminate between long term charters and spot charters – maintenance days should be discussed.

Question 3.

Students should be able to describe the main categories of cranes and vessel hull types: Shear Leg/Revolving Cranes/Barge/Semi-submersible/Jack-Up/Monohull.
Also to describe lifting capacities and types of lifts such as: Jackets/topsides/pipes/subsea equipment, etc.
Explaining self propelled or towed vessels and use of DP is also expected.
Accommodation/Helidecks etc. should be included in discussing the vessel types.

Question 4.

Students should be aware that the number and type of vessels will be a function of many factors that will include:
Distance from base-port to field location
Availability of vessels in the region
Existence of a spot market
Condition of the spot market (tight/soft)
AHTS + PSV or only AHT
Type of MODU used
Number of wells to be drilled
Type of wells to be drilled
Environmental considerations
Number of rig moves anticipated

They should also recognise that the period of the charters will be linked to the duration of the drilling campaign and the need for contingency if delays are encountered.
Making determination on requirements then deciding on split between term and spot should also be discussed.

Question 5.

Students should explain that most OSV chartering involves some form of competitive tendering, and this could include fully written ITT or telecon + email and consequently the time for tender return may vary from a few hours (or less) to several months.
Awareness of different vessel specifications and need to assess capacities/capabilities objectively is expected.
Brokers working on spot market generally running the whole process with final vessel selection by charterer should be explained.
The range of information that can expected in a formal ITT should be explained:

Safety statistics;
Operating manuals;
Performance bonds;
Historical operating data;

References;
Crew CVs;
Financial records;
Parent company guarantees;
Risk Assessments & Method Statements

Prequalification/pre-tender documents used to short list should be discussed.

Question 6.

This 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.
Polar Regions, Harsh Weather, Moderate Waters and Benign Waters should be discussed with details of equipment variations for vessels operating in these areas.
Discussion should also include:
Remote areas, political regime (regulatory/cabotage/political unrest), environmental policies (ie emission control areas)
Crime & Law enforcement – (Corruption/Piracy)
Marks are gained for details/examples of the effects of these influences have on offshore operations, rather than just stating them.
Reference to specific areas within each category should be included and shown on the map.

Question 7.

Students were expected to demonstrate awareness of current market situation for each sector and provide a general indication of spot and term rates.
Report format is important and sections should include:
Newbuild costs and recent S&P values for each sector.
Newbuild order book.
Subsea developments and OCV/MPSV utilisation.
Implication of oil price particularly for high cost subsea developments.
Term rates for OCV/MPSV's
Contractor crew and equipment costs.
Political issues
Environmental issues (ECAs/IMO Tier 4/Climate Change lobby etc.)
Important to conclude with clear recommendation with reasoned projections.

Question 8.

Students should demonstrate their awareness of the level of forward planning required including the development of a set of approved procedures.
Procedures include details of: Existing & new location/Number, spec & role of AHTS
Safe havens will be identified en-route in case of emergency.
Certificates of Approval to proceed will be issued at key points.
Key personnel should be identified: OIM/Towmaster/Stability Tech/Charterers marine & survey reps/MWS/AHTS masters.
The description should include a sequence of events:

Vessel assurance/on-hire surveys for AHTs
Hand-over of rIg from drilling crew to Towmaster
Pre-start equipment checks
Position rig by winches clear of subsea assets
Break out anchors
Modifications to anchor scopes
Ballasting to transit draft
Connection of towing vessels
Transit to new location
Deploy anchors
Cross tensioning
Hand back of rig from Towmaster to drilling crew

The importance of recording transfer points and fuel consumption (ROB) between charterers should be explained.
The role of AHTs to change anchor scopes depending in seabed conditions should be mentioned.
The complexity of anchor scope arrangements (chain, wire, fibre rope, surface & sub-surface buoys) should be described in order to explain the range of specification of AHTs.
The capability of AHTS crews in performing these tasks can vary enormously and this should also be mentioned.