

General comment

The standard of answer varied considerably as can be expected, however the overall pass rate at over 58% was an improvement on last year. Many of the students had a good overall understanding of the subject but there was a significant number with little or only superficial knowledge and answering by rote rather than a demonstration of depth of knowledge of the topic.

Question One

A question that was very well handled generally, and exceptionally well handled in some cases. Students demonstrated knowledge of jetty layout, loading equipment, and were able to discuss chicksan type loading arms. The shore-side infrastructure of terminals including tank storage and control rooms was also handled well, and some students gave insightful answers on health and safety regulations in the terminals.

Question Two

This was the second most popular question – and reasonably well scored. As expected those with knowledge of the subject picked up marks relatively easily, and those with little depth of knowledge struggled. Common to many aspects of the offshore industry most of these terms are either known and well understood or not understood at all.

Casing – Lengths of steel pipe used for lining the wall of a drilled well.

Spudding-in – The start of a drilling operation.

DP – Dynamic Positioning.

FPSO – Floating Production Storage & Offloading vessel.

Hyperbaric Lifeboat – Lifeboat with the capability of being pressurised for evacuation of divers.

Moonpool – A large well constructed between a vessels main deck and the underside of the hull.

Pipe Carrier – A large PSV used to transport pipe/tubulars to a pipelaying vessel.

Question Three

A reasonably well answered question by most students attempting it, although the standard of sketches was not particularly high overall.

To answer this question effectively students must demonstrate knowledge of the core function of these vessels (platform supply) which includes details on dimensions capacities and the range of cargoes these vessel carry.

The propulsion arrangements of the vessel should be clearly described showing the general arrangement of propellers, thrusters, azimuths and the DP designation – minimum DP2.

Details on the range of 'Multi-Purpose' operations the vessel can undertake can include: Rescue Zone, fire monitors, ROV/LARS systems, moonpool, FRC/Daughter Craft, increased accommodation, AHC crane.

Additional marks were awarded for awareness of modern designs for harsh weather/polar conditions – size, freeboard, bow shape, de-icing etc.

Environmental design features, sulphur emission areas, 'Clean Design' class notation also scored additional marks.

Question Four

This was the most popular question and also the highest pass rate. This was a fairly straight forward question covering the range of support services required across the life cycle of an oil/gas field and in general most students answered it reasonably well. The key to maximising marks is to keep the essay structured and to avoid drifting off from what is being asked. In some circumstances students spend too much time differentiating particular technologies and equipment such as MODUs, fixed platforms and FPSOs, rather than the chronology of drilling – exploration/appraisal/development/ongoing production/intervention/workover and how these various phases have differing support/service requirements.

Question Five

Most students attempting this question found it quite challenging. Report writing format was generally very poor, in many cases non-existent. In general the level of detail in regard to potential markets, vessel specification, specialised equipment and extent of worksopes was disappointing. Students who were able to demonstrate their knowledge of the complexities involved when marine crews are working with specialised contractor personnel in the OCV market and the consequent need for a comprehensive inter-phase of working arrangements scored well.

Question Six

There was considerable variation in how this question was approached, with some students limiting their answer to describing the differences between 'wet' and 'dry' tows. The key to scoring well in this question was to demonstrate understanding of rig move procedures and the workscope involved regarding different locations/water depths etc. and the consequent variation in AHTS specification/competence that can be encountered.

Question Seven

This question was reasonably well answered overall. The question was essentially in three parts – firstly a description of the cargo, secondly what it was used for and finally any special features associated with its carriage. Most students could list the main cargoes carried, a lesser number being able to explain how the characteristics influenced how they were carried and a disappointingly few could provide details of their uses offshore. Understanding was expected of strengthened tanks and agitators for mud/brine, stainless steel tanks/cofferdams for special liquids (MEG/Toluene/Methanol), bulk cargoes discharge arrangements – air compressors/discharge hoses etc. Knowledge of quality control issues such as water and fuel sampling. Description of crane operations – routine and heavy lift; the IMDG code – designated dangerous goods areas was expected.

Question Eight

A fairly good pass rate for the students attempting this question. A general understanding of pipelaying operations was expected particularly the sequence of survey-pipelaying-trenching-backfilling-testing/commissioning. Awareness of the two broad types of pipelaying vessel: Rigid and Flexible was essential and consequently understanding of the range of vessels required to support their operations. Recognition of tow-in/bundle tow deployments was also expected.