

## SOM Examiners report May 2023

### General

It would seem fundamental when taking the exam that a candidate would read the question carefully and then answer it. Some still fail to do this. It is also important to answer all parts of the question so a question with three parts requires three answers.

Looking back at the past Examiners Reports on the ICS website is your best chance to gain familiarity with the exam and what is required to pass it. And looking back at these it is notable that in many of the subjects the poor standard of Maritime Geography demonstrated by most candidates has been a consistent worry. You must demonstrate a reasonable understanding of this. Shipping has always been a worldwide business and a good knowledge of that world is essential. There is no excuse for ignorance of this world in a world of smart phones. A map should always show relevant ports, routes and geographical features on that route such as canals, capes, seas, oceans, and special areas affected by weather, currents or hazards. Do not waste time naming irrelevant details such as distant seas and countries as these get no extra marks.

Q1. As usual the most popular question in the exam with real opportunities for getting high marks by showing your knowledge of the layout of the majority of commercial vessels be they Dry Bulk, Tankers or Container vessels. As usual candidates were asked to draw a profile (side view) and cross section (front view) of a vessel. Some wasted time drawing a plan (a bird's eye view) that was not required or given marks. When drawing a profile turn the paper to a landscape view and use the full length to allow more detail. Several drawings were too small, lacking detail, limiting labelling and missing marks. All vessels have double bottom tanks but none have one single tank as the vessel needs several to allow flexibility and well as safety. Vessels also have lifeboats and this or these should be shown.

Examiners want to see accuracy with the dimensions you give to the vessels. A **Handymax** vessel is at the top end of the range close to the Supramax.

A typical loa will be 180-190 M with a beam of max 32.2M (to allow flexibility at the Panama Canal) and have a draft of about 12-13 M. Its SDWT will be around 50-55 KMT which multiplied by 1.25 gives a cubic cap of about 65,600 M<sup>3</sup>. Learn these because Candidates putting LOA 150-200M, beam 24-34 M, draft 10-14 and SDWT 40-60 KMT don't show real knowledge with such a wide range.

It is the same with MR tankers. Looking at more than 60 MR vessels in the fleet of one of the largest tanker groups they all have similar dimensions LOA 183 M, beam 32.2 M and draft 11.5-12.5 M. Its SDWT will be around 47-52 KMT which multiplied by 1.1 gives a cubic cap of about 55 KM<sup>3</sup>. Both these vessels are constrained by limits imposed by ports and canals as well as the cargoes they carry. With four parts to the question all parts carry similar marks. Some of those for part (d) are allocated to the map so make sure you do this properly and keep in mind that the actual description of the trade will only be worth about 2-3 marks at best.

If you are going to learn a route ensure that the one you choose is appropriate for the vessel, the cargo and the ports concerned and be **VERY SURE** you know where these ports are located.

Q2. This was a budget question which has been set in the exam before. It is designed for you to show what information you would need about an unknown vessel so that you are able to create a budget for the one that has just been purchased by one of your owners with a mixed fleet. Briefly, these are Size, Age, Type, Flag, Engine and Auxiliaries, Handling Equipment and Trading area. Once you have these you will be able to determine from your company's experience the likely Running costs and this will be fine tuned by looking at the vessels Class history and other records. Why these details are important needs also to be explained. It is easy to say that a big ship needs more paint than a small one but its bigger and likely earns more money. And if the big ship is on a regular series of voyages from NW Australia to China, generally in good weather with modern ports and shore

equipment then the wear and tear on the paint work may be a lot less than on a smaller Handy vessel in and out of all sorts of ports with a variety of equipment being used on board and ashore in all weathers.

Part (b) asked for details of the typical costs included in the actual budget and should have been better done. A brief list will get some marks but details get more. The last part was done better with a range of reporting to check performance and some good and topical reasons why significant variations might occur in a budget.

Q3. This was quite a popular question which is not surprising as it was very straightforward for candidates who had practiced doing an actual voyage calculation. This is a relatively simple cargo question really to test if a candidate knows what to do. Given the cubic capacity was 89623 M<sup>3</sup> and SF 1.48 the max cargo will be **60,556 MT** which will cube out the vessel. It should be obvious that with a SDWT of 78,446 MT the vessel will have about 17,900 MT of spare DWT so the fuel and constant will not affect the cargo and Candidates who mentioned this and that this figure also met the CP requirement of 60,000 MT +/- 10% i.e. 54-66,000 MT got full marks for this part. Some however decided that they could take 66,000 MT to gain more freight without explaining where it would go and did not. Several candidates seem to confuse DWAT and DWCC. In this instance the cargo quantity will not be affected by deductions. Candidates should also be aware of SSHEX & SHINC and be familiar with using these.

Your choice for bunkering was relatively straightforward but you had an option and if either was chosen then they were ok. The vessel needed to take sufficient bunkers during the voyage to replace all that was used on the voyage as was made clear in the question so a careful calculation of the different voyage legs ballast/load/laden/discharge correctly using SSHINC and SSHEX and the right speed should have shown that the bunkers required was **1197 MT and the voyage length 41.26 days**. To often candidates are deducting the cost of fuel taken during the voyage from the income earned on the voyage, rather than the quantity used during the voyage. Candidates should be using FIFO. Bunkers at **Rio de Janeiro** are cheaper than Montevideo and available during discharge. Taking all the bunkers there was an option and was allowed.

However, an alternative was to reduce the amount taken at Rio so as to leave on board a safety margin of 5 days of LSFO at 36MT per day =180MT after discharge instead of 700 MT for the next voyage. That would mean that you reduced what you took in **Rio to 1197-520 = 677 MT**. This would not affect the cargo quantity but would make the economics of the next voyage better. The vessel would sail from Montevideo with 1059 Mt for voyage + 12MT for discharge + 180 MT =1251MT. On completion of discharge, you would take **520 MT** of bunkers at Singapore. This margin of \$80 would save \$80 X 520Mt = \$41,600 for the NEXT voyage. Earnings per day is required and should be a profit of **\$4,873**.

Q4. The role of the Classification Society (Class) is to be an independent check on the condition of the vessel to ensure that the vessel is maintaining the Standards of Construction and Operation set by Class. They will also offer a variety of other services provided by Naval Architects, Surveyors, Engineers, Metallurgists and IT specialists advising on all areas of ship design and safety. Many will also provide a service to Flag states which delegate the task of issuing certificates to Class acting as agents.

Part (b) of the question was done quite well with many candidates showing some familiarity with the normal 4/5-year Special survey cycle, verified by Annual and Intermediate ones. The reasons for other surveys such as after Damage was also done well. Part (c) should have been done better and the certificates issued by Class should be known for what they certify, their validity and verifications. It is also important to know that **Flag** normally issues some of the certificates on board including Registry, Tonnage, the Radio Licence and the Minimum Manning Certificate.

Q5. Not a popular question but one to test your knowledge of significant new Codes and Conventions in the rapidly evolving world of shipping. Part (a) asked about IMSBC the International Maritime Solid Bulk Cargo Code and it was expected that candidates would at least be familiar with what it covers, the stowage and carriage by sea, loading and unloading issues and the three main groups of cargoes A, B, & C and why they are Hazardous. Mentioning Transportable Moisture Limit (TML), the IMDG code, cargoes with a Chemical hazard and showing real knowledge got marks. Part (b) was the IBWMC International Ballast Water Management Certificate required for all vessels over 400GT to show compliance with Ballast Water Management Convention BWM which has been in force since 2017. Causing harm to the Marine Environment by transferring harmful aquatic organisms and pathogens in ballast water has finally started being addressed with onboard equipment and plans and record books.

Q6. A cargo question to test the Candidates knowledge of world trade routes and vessels gave some a chance to shine with real first-hand knowledge but generally was not popular nor done well as the standard of Maritime Geography is still low. Most chose the conventional cargoes of Crude Oil and Iron Ore and used the maps with varying degrees of accuracy. If you put a route on a map show the location of the load port and discharge port and name these on the map, show the route going on the sea naming the Seas, Capes, Straits on the route and not across land, and not showing it starting or finishing in the general area of a country such as China or Brazil which have long coastlines. Candidates should be familiar with the main load and discharge ports, the routes and the likely vessels for the major cargoes of world trade. These are Crude Oil, Petroleum Products, Gas and Chemicals for Tankers, Iron Ore, Power Coal, Coking Coal, Grain and Bauxite for Bulkers Containers for Container vessels. Failure to show knowledge of these will fail to get marks.

Q7. This question gave the Candidate a situation with a vessel having a fire in a cargo of coal and the subsequent actions to on the vessel and ashore to deal with this. It then asked a simple question. Discuss in detail the different Insurances the vessel will have in place to cover this event. The information given pointed clearly to several Insurances that would come into play As there was damage to the Ship which would likely occasion delay, repairs, and possible deviation then Hull & Machinery Insurance would be involved. As there were injuries to the Crew and Firefighters, Damage to the Berth, Issues with Freight and demurrage and damage to cargo the P & I would be involved. The Cargo would likely be Insured so Cargo Insurers would be involved. The Ship had to make an Extraordinary Sacrifice, in a time of Peril to Preserve the Property of a Common Maritime Adventure. Therefore, General Average would be appropriate. Candidates who showed knowledge of these did well but wasting time writing about Collision Liability wasted their time as there was no collision. Read the question. Answer the question.

Q8. The Exam you are taking is Ship Operations and Management. When a question asks specifically for the structure of a company providing Commercial, Technical and Operational management of a mixed fleet of vessels you should do this. It is not satisfactory to draw and describe an anodyne company structure with a sales team, accounts, an HR department, invoices and other functions such as managers and directors without a single mention of anything related to SHIPS. What was required was an attempt to show familiarity with the structure that showed Charterers, Operators, Demurrage specialists, Freight Invoicing, Storing capability, Crew Management, Technical Superintendents, Bunkering, Agency and a host of other roles. It requires either knowledge or a good imagination or both and a study of the Shipman 2009 Standard Ship Management Agreement would be a starting point. Luckily those who had bothered to

study this did well and answered the question by identifying the various departments, explaining their key functions and responsibilities and drawing a logical organisation chart.