|  |  |  |  |
| --- | --- | --- | --- |
| Seafarer ID |       | Date and Time |       |
|  |
| Name |       | Exam location |       |
|  |  |  |  |
| Duration |       | Examiner |       |

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| --- | --- | --- | --- |
| Certificate Type |       | Result |       |
|  |  |  |  |
| Certificate Capacity | Engineer Watchkeeper (Steam and Motor) | Purpose |       |

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| **Boilers** | **Steam Propulsion** (cont) | **Materials** |
| Water gauge | Turbo alternators | Properties | C3 | [ ]  |
|  Local | A1 | [ ]  |  Operation and construction | B2 | [ ]  | Destructive and non-destructive testing | C3 | [ ]  |
|  Remote | A3 | [ ]  | Associated Systems & Equipment | C3 | [ ]  | **Propellers and Thrusters** |
| Manhole doors | A1 | [ ]  | **Water treatment** | Fixed pitch | C3 | [ ]  |
| Feed check V/Vs | A2 | [ ]  | Evaporators | B3 | [ ]  | Controllable pitch |
| Blowdowns V/Vs | A2 | [ ]  | Distillers | B3 | [ ]  |  Operating system | C3 | [ ]  |
| Safety Valves | A3 | [ ]  | Ion exchange | C3 | [ ]  | Stern tube bearing | C3 | [ ]  |
| Operations | Reverse osmosis | C3 | [ ]  | Screw Shafts | C3 | [ ]  |
|  Furnace purging | A1 | [ ]  | Testing | B2 | [ ]  | Cross thrusters |
|  Priming and foaming | C3 | [ ]  | Chemicals | B2 | [ ]  |  Fixed and CP prop | C3 | [ ]  |
|  Raising steam | A3 | [ ]  | **Feed Systems** |  Voith Schneider etc | C3 | [ ]  |
|  Shutting down | A3 | [ ]  | Arrangement | B3 | [ ]  | DP systems | C3 | [ ]  |
|  Superheater fires | A1 | [ ]  | Feed pumps | B2 | [ ]  | **Dry Docking** |
|  Uptake fires | A1 | [ ]  | Deaerators and heaters | C3 | [ ]  | Supply of fire fighting water | A3 | [ ]  |
| Water hammer | C3 | [ ]  | Air ejector | C3 | [ ]  | Supply of electrical power | C3 | [ ]  |
| Water testing | B2 | [ ]  | Ext pumps | C3 | [ ]  | Stability  | C3 | [ ]  |
| Construction arrangement | B3 | [ ]  | Condenser | C3 | [ ]  | Ships Structure | C3 | [ ]  |
| Automatic controls | C3 | [ ]  | Water testing | B2 | [ ]  | **Tanks** |
| Combustion | C3 | [ ]  | Auto controls | C3 | [ ]  | Safety precautions |
| Associated Systems & Equipment (EA) | C3 | [ ]  | **Steering Gears & Rudders** |  Entering | A1 | [ ]  |
| **Diesel Propulsion** | Emergency Operation | A2 | [ ]  | **Stability** |
| Operation | Construction | C3 | [ ]  | Free surface | C3 | [ ]  |
|  Air line explosion | A1 | [ ]  | Control | C3 | [ ]  | Damage control | C3 | [ ]  |
|  Combustion | C3 | [ ]  | Lubrication | B3 | [ ]  | **Electricity** |
|  Crankcase explosion | A1 | [ ]  | **Air compressors** | Emergency generators |
|  Emergency | A2 | [ ]  | Safety devices |  Operation | B2 | [ ]  |
|  Fuel consumption | C3 | [ ]  |  Air line | A2 | [ ]  | Testing | C3 | [ ]  |
|  Manoeuvring | A2 | [ ]  |  Compressor | A2 | [ ]  | Fault detection | C3 | [ ]  |
|  Parameters | B1 | [ ]  |  Receiver | A2 | [ ]  | AC generators |
|  Scavenge fires | A1 | [ ]  | Operation | A3 | [ ]  |  Construction | C3 | [ ]  |
|  Shutting down | A2 | [ ]  | Lubrication | B3 | [ ]  |  Control equipment | C3 | [ ]  |
|  Warming through | A2 | [ ]  | Starting air | C2 | [ ]  |  Fault detection | C3 | [ ]  |
| Associated Systems & Equipment | C3 | [ ]  | Service and control air | C3 | [ ]  | Operation | B3 | [ ]  |
| Slow, medium and high speed | Receivers | C2 | [ ]  | Protection devices | A3 | [ ]  |
|  Alignment | C3 | [ ]  | Automation | C3 | [ ]  | DC Generators |
|  Automation | C3 | [ ]  | **Fire** |  As per AC | B2 | [ ]  |
|  Combustion | C3 | [ ]  | Prevention | A1 | [ ]  | Distribution |
|  Construction | C3 | [ ]  | Extinction | A1 | [ ]  |  Distribution boards | C3 | [ ]  |
|  Diesel electric | C3 | [ ]  |  BA sets | A1 | [ ]  |  Drip proof | C3 | [ ]  |
|  Gear boxes and clutches | C3 | [ ]  |  Hoses extinguishers | A1 | [ ]  |  Electric shock | A1 | [ ]  |
|  Lubrication | B3 | [ ]  |  Procedures | A2 | [ ]  |  Emergency switchboard | B3 | [ ]  |
|  Manoeuvring controls | A2 | [ ]  | Fixed installations | A2 | [ ]  |  Fault detection | C3 | [ ]  |
|  Protection devices | A3 | [ ]  | Detection | C3 | [ ]  |  Flame proof | C3 | [ ]  |
|  Thrust bearing | C3 | [ ]  |  Sensors, systems | C3 | [ ]  |  Intrinsically safe | C3 | [ ]  |
|  Timing | C3 | [ ]  |  UMS requirements | C3 | [ ]  |  Isolation | A1 | [ ]  |
|  Turbo chargers | C3 | [ ]  | Structural fire protection | C3 | [ ]  |  Main switchboard | B3 | [ ]  |
|  Vibration dampers | C3 | [ ]  | **Pumping Systems** |  Non-earthed and earth neutral | C3 | [ ]  |
| Diesel alternators | B2 | [ ]  | Fire main | A3 | [ ]  |  Protection devices | A3 | [ ]  |
| Water treatment | B2 | [ ]  | Oily water separator | A3 | [ ]  |  Transformers | C3 | [ ]  |
| **Steam Propulsion** | Bunkering | A3 | [ ]  |  Two wire | C3 | [ ]  |
| Operation | Bilge and ballast systems | B2 | [ ]  | Motors |
|  Emergency | A1 | [ ]  | Salt water system | B2 | [ ]  |  AC: single and three phase | C3 | [ ]  |
|  Manoeuvring | A2 | [ ]  | Fresh water cooling | C3 | [ ]  | **Deck Machinery**  |
|  Parameters | B1 | [ ]  | Sewage plant | C3 | [ ]  | Davits | B3 | [ ]  |
|  Shutting down | A2 | [ ]  | Fuel oil system | B3 | [ ]  | Winches | C3 | [ ]  |
|  Warming through | A2 | [ ]  | Diesel oil system | B3 | [ ]  | Windlass | C3 | [ ]  |
| Turbines | Inert gas system | C3 | [ ]  | Cranes | C3 | [ ]  |
|  Automation | C3 | [ ]  | Lubricating oil system | B3 | [ ]  | Derricks | C3 | [ ]  |
|  Flex coupling | C3 | [ ]  | Cargo system | C3 | [ ]  | Hatches | C3 | [ ]  |
|  Gear boxes | C3 | [ ]  | Sanitary system | C3 | [ ]  | Other | C3 | [ ]  |
|  Gland steam | B3 | [ ]  | Purifiers, clarifiers | C3 | [ ]  | **Automation and Control** |
|  Impulse, reaction | C3 | [ ]  | Heaters | C3 | [ ]  | Bridge control  | C3 | [ ]  |
|  Lubrication | B3 | [ ]  | Pumps, positive displacement, etc | C3 | [ ]  | UMS  |
|  Manoeuvring V/V | C3 | [ ]  | **Refrigeration Systems** |  Fault detection | C3 | [ ]  |
|  Protection devices | A3 | [ ]  | Safety | A2 | [ ]  | Transfer from manual to auto  | A3 | [ ]  |
|  Thrust bearing | C3 | [ ]  | Direct and indirect expansion | C3 | [ ]  | Measuring devices  | C3 | [ ]  |
|  Turbo electric | C3 | [ ]  | Air conditioning | C3 | [ ]  | Testing  | B3 | [ ]  |
|   |  |  | Compressors | C3 | [ ]  | Calibration  | C3 | [ ]  |

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| **Machinery Records** |
| Oil Record Book | B3 | [ ]  |
| Log books | C3 | [ ]  |
| Trend recording | C3 | [ ]  |
| Official records | C3 | [ ]  |
| **Maritime Law** |
| MARPOL | C3 | [ ]  |
| SOLAS | C3 | [ ]  |
| Marine Orders | C3 | [ ]  |
| ISM Code | C3 | [ ]  |
| ISPS Code | C3 | [ ]  |
| Other | C3 | [ ]  |
| **Management** |
| Training of Engine-room staff | C2 | [ ]  |
| Mgt and organization of ER staff / dept | C2 | [ ]  |
| **English Language** |
| Comprehension of the English language | A1 | [ ]  |