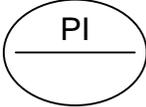
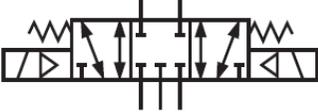


Exam questions “Automation of the ship power supply system”

Operational\management level		
Automation of ship power supply systems		
No	QUESTIONS	CORRECT ANSWER
1.	Which of the standardized analogue electrical signals is the best for the transmission of measurements in the computer measurement path? A. 0 – 5 mA, B. 4 – 20 mA, C. 0 – 20 mA, D. 0 – 5 V.	<div style="border: 1px solid black; width: 40px; height: 20px; margin: 0 auto;"></div> <div style="border: 1px solid black; width: 40px; height: 20px; margin: 0 auto; text-align: center;">B</div> <div style="border: 1px solid black; width: 40px; height: 20px; margin: 0 auto;"></div> <div style="border: 1px solid black; width: 40px; height: 20px; margin: 0 auto;"></div>
2	A twisted pair is applied in the transmission of electrical analogue systems because of which of the following? A. It is an inexpensive solution. B. Such a twisted pair has great mechanical strength. C. Such a transmission line is resistant to electromagnetic interference. D. The diameter of the line is smaller and thereby the cable path can include more measurement channels.	<div style="border: 1px solid black; width: 40px; height: 20px; margin: 0 auto;"></div> <div style="border: 1px solid black; width: 40px; height: 20px; margin: 0 auto;"></div> <div style="border: 1px solid black; width: 40px; height: 20px; margin: 0 auto; text-align: center;">C</div> <div style="border: 1px solid black; width: 40px; height: 20px; margin: 0 auto;"></div>
3	The analogue measurement path is connected with the computer by A. D/A convertor, B. A/D converter, C. hub, D. commutator.	<div style="border: 1px solid black; width: 40px; height: 20px; margin: 0 auto;"></div> <div style="border: 1px solid black; width: 40px; height: 20px; margin: 0 auto; text-align: center;">B</div> <div style="border: 1px solid black; width: 40px; height: 20px; margin: 0 auto;"></div> <div style="border: 1px solid black; width: 40px; height: 20px; margin: 0 auto;"></div>
4	Positioner is a device which enables: A. Emergency control of the valve, B. Conversion of the electrical signal from the controller to the pneumatic signal transmitted to the servo-mechanism, C. Increasing the strength required for the repositioning of the actuator, D. Precise controlling of the position of the actuator for a specific value of the output signal of the controller.	<div style="border: 1px solid black; width: 40px; height: 20px; margin: 0 auto;"></div> <div style="border: 1px solid black; width: 40px; height: 20px; margin: 0 auto;"></div> <div style="border: 1px solid black; width: 40px; height: 20px; margin: 0 auto;"></div> <div style="border: 1px solid black; width: 40px; height: 20px; margin: 0 auto; text-align: center;">D</div>
5	Positioner: A. Receives the control signal from the measurement sensor, B. Is a component of the controller, C. Is subject to the calibration process, D. Is not subject to the calibration process.	<div style="border: 1px solid black; width: 40px; height: 20px; margin: 0 auto;"></div> <div style="border: 1px solid black; width: 40px; height: 20px; margin: 0 auto;"></div> <div style="border: 1px solid black; width: 40px; height: 20px; margin: 0 auto; text-align: center;">C</div> <div style="border: 1px solid black; width: 40px; height: 20px; margin: 0 auto;"></div>

6	<p>The calibration of the positioner is based on which of the following?</p> <p>A. The setting of the valve so that is fully open or fully closed, B. So that valve is fully open or fully closed at arbitrary signals from the controller, C. Positioners are not subject to the calibration process, D. The starting point of the valve, the range and assumed characteristics.</p>	<table border="1" style="width: 100%; height: 100%;"> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td>D</td></tr> </table>				D	
D							
7	<p>The symbol on the drawing denotes which of the following?</p> <p>A. Local element of the pressure measurement, B. Remote element of the pressure measurement, C. Local or remote pressure measurement, D. Level indicator.</p>		<table border="1" style="width: 100%; height: 100%;"> <tr><td>A</td></tr> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> </table>	A			
A							
8	<p>The symbol on the drawing regards which of the following?</p> <p>A. Signalling a decrease in the flow, B. Signalling a decrease in the pressure, C. Signalling a decrease in the temperature, D. Signalling a decrease in the viscosity.</p>		<table border="1" style="width: 100%; height: 100%;"> <tr><td> </td></tr> <tr><td>B</td></tr> <tr><td> </td></tr> <tr><td> </td></tr> </table>		B		
B							
9	<p>What does symbol LIAHL denote?</p> <p>A. Low pressure alarm, B. High pressure alarm, C. Low and high temperature alarms, D. Low and high level alarms.</p>	<table border="1" style="width: 100%; height: 100%;"> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td>D</td></tr> </table>				D	
D							
10	<p>If the power unit is controlled by the navigator, the mechanic</p> <p>A. May take over control in the control engine room at any moment, B. May not take over control in the control engine room, C. The controlling station may not be changed, D. Answers A, B, C are incorrect.</p>	<table border="1" style="width: 100%; height: 100%;"> <tr><td>A</td></tr> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> </table>	A				
A							
11	<p>If the power unit is controlled by the mechanic, the navigator</p>	<table border="1" style="width: 100%; height: 100%;"> <tr><td> </td></tr> </table>					

	<p>A. May take over the control without the mechanic's consent, B. May not take over the control without the mechanic's consent, C. May take over the control without the mechanic's control, but only in emergencies, D. No answer is correct.</p>	<input type="text"/> <input type="text"/> B <input type="text"/> <input type="text"/> <input type="text"/>
12	<p>Presented symbol  denotes that the directional valve (control valve) is</p> <p>A. Controlled electrically, B. Controlled electrically or pneumatically, C. Controlled pneumatically, D. No answer is correct.</p>	<input type="text"/> A <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
13	<p>Presented symbol of the directional valve (control valve) regards </p> <p>A. 3/5-way control valve, B. 2/5-way control valve, C. 2/7-way control valve, D. 3/7-way control valve.</p>	<input type="text"/> A <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
14	<p>Signal CRITICAL RPM LIMIT appears when</p> <p>A. The engine exceeds the rated rotational speed, B. The engine exceeds the maximum rotational speed, C. The engine's rotational speed is within critical r.p.m. range, D. The engine exceeds the rotational speed limited by the mechanic.</p>	<input type="text"/> <input type="text"/> <input type="text"/> C <input type="text"/> <input type="text"/>
15	<p>System Combinator regards which of the following?</p> <p>A. Coupled controlling of the steam pressure and fuel dosage, B. Controlling the power unit with the adjustable blade propeller, C. Controlling the power unit with the fixed propeller, D. Coupled controlling of the rotational speed and fuel dosage.</p>	<input type="text"/> <input type="text"/> B <input type="text"/> <input type="text"/> <input type="text"/>
16	<p>In power unit with the adjustable blade propeller the SLD (Slow Down) function is most often implemented by which of the following?</p> <p>A. Reducing the propeller's pitch, B. Reducing the rotational speed, C. Reducing fuel dose, D. Reducing the ship's speed.</p>	<input type="text"/> A <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>

17	<p>Application of the adjustable blade propeller enables which of the following?</p> <p>A. Obtaining a higher power of the engine, B. Obtaining a higher efficiency of the propeller, C. Decreased fuel consumption for a set speed of the ship, D. Increased reliability of the operation of the marine power plant.</p>	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> C <input type="checkbox"/>
18	<p>Decreased fuel consumption for a set speed of the ship can be obtained by which of the following?</p> <p>A. Setting a higher value of the propeller pitch and a lower value of the rotational speed, B. Setting a lower value of the propeller pitch and a higher value of the rotational speed, C. Everything depends on the hydrometeorological conditions experienced by the ship, D. Answers A and B are correct.</p>	<input checked="" type="checkbox"/> A <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
19	<p>The Combinator system ensures optimal operation of the power unit of the unit:</p> <p>A. In each moving condition, B. When the shaft generator is turned on, C. Only when the ship is going in full draught, D. In average moving conditions.</p>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> D
20	<p>Turning on the shaft generator in most systems:</p> <p>A. Does not affect controlling the power unit, B. Is not possible when the Combinator system is on, C. Is possible when Combinator system is on, D. Is always possible notwithstanding the type of controlling of the power system.</p>	<input type="checkbox"/> <input checked="" type="checkbox"/> B <input type="checkbox"/> <input type="checkbox"/>
21	<p>An isolated system of generation and distribution of electricity denotes</p> <p>A. An isolation of current carrying conductors by a protective insulation, B. The separation of the electrical devices clamps so that they cannot be touched, C. The isolation of current carrying conductors from the hull of the ship, D. The separation of isolation of the current carrying conductors by the additional insulation.</p>	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> C <input type="checkbox"/>
22	<p>In the fixed conditions, the voltage of the ship power installation at loads of alternating current generators from idle to the rated power rate and at the nominal power rate should be the maintained at the level of which of the following?</p> <p>A. $U_n \pm 2.5\% U_n$, B. $U_n \pm 3.0\% U_n$, C. $U_n \pm 4.0\% U_n$, D. $U_n \pm 5.0\% U_n$.</p>	<input checked="" type="checkbox"/> A <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

23	<p>In the fixed conditions, the frequency of the ship installation at the loading between 0 and 100% of the rated loading of generators should be maintained at the level of which of the following?</p> <p>A. $f_n \pm 2.5 \% f_n$, B. $f_n \pm 3.0 \% f_n$, C. $f_n \pm 4.0 \% f_n$, D. $f_n \pm 5.0 \% f_n$.</p>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> D
24	<p>In the dynamic conditions in the ship installation, when the loading of the alternating current generator changes rapidly (turning on, turning off the loading at the level of 60% the rated current at $\cos\Phi < 0.4$ ind.) operating with the rated voltage should be within which of the following?</p> <p>A. $U_n - 20\% U_n$ up to $U_n + 15\% U_n$, B. $U_n - 15\% U_n$ up to $U_n + 15\% U_n$, C. $U_n - 15\% U_n$ up to $U_n + 20\% U_n$, D. $U_n - 20\% U_n$ up to $U_n + 20\% U_n$.</p>	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> C <input type="checkbox"/>
25	<p>In dynamic conditions, when the loading of the rated loading of the current is fully disconnected, the frequency of the generator current in the ship power installation should not exceed</p> <p>A. 15% f_n, B. 10% f_n, C. 12% f_n, D. 20% f_n.</p>	<input type="checkbox"/> <input checked="" type="checkbox"/> B <input type="checkbox"/> <input type="checkbox"/>
26	<p>The voltage adjustment time to reach the level $U_n \pm 3\% U_n$ after a surge in the load of the unit (60% J_n, $\cos\phi < 0.4$ ind.) should not exceed</p> <p>A. 30 s, B. 10 s, C. 5 s, D. 1.5 s.</p>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> D
27	<p>The frequency adjustment time to reach level $\pm 1\% f_n$ after a surge in the load of the unit (50% P_n) should not exceed</p> <p>A. 30 s, B. 10 s, C. 5 s, D. 1.5 s.</p>	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> C <input type="checkbox"/>
28	<p>The following directly control frequency values in the ship installation:</p> <p>A. Voltage regulators, B. Speed governors, C. Synchronizers, D. Generator excitation currents.</p>	<input type="checkbox"/> <input checked="" type="checkbox"/> B <input type="checkbox"/> <input type="checkbox"/>

29	<p>The following directly control voltage in the ship installation:</p> <ul style="list-style-type: none"> A. Speed governors, B. Voltage regulators, C. Characteristics of generators, D. Mechanical characteristics of ship engines 	<table border="1" style="width: 100%; height: 100%; text-align: center;"> <tr><td> </td></tr> <tr><td>B</td></tr> <tr><td> </td></tr> <tr><td> </td></tr> </table>		B		
B						
30	<p>The static mechanic characteristic of the generator motor with the speed governor $n = f(P)$ when the generator unit is planned to work together in parallel with another unit should:</p> <ul style="list-style-type: none"> A. Run horizontally ($n = \text{const.}$), B. Decrease as P increases, C. Increase as P increases, D. It is not significant, because the computer frequency control system changes the characteristic during operation. 	<table border="1" style="width: 100%; height: 100%; text-align: center;"> <tr><td> </td></tr> <tr><td>B</td></tr> <tr><td> </td></tr> <tr><td> </td></tr> </table>		B		
B						
31	<p>The horizontal characteristics $n=f(P)$ of the engine with the “speed droop” knob is set to which of the following?</p> <ul style="list-style-type: none"> A. Zero of scale intervals, B. The maximum number of scale intervals, C. 50 scale intervals, D. 45 scale intervals. 	<table border="1" style="width: 100%; height: 100%; text-align: center;"> <tr><td>A</td></tr> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> </table>	A			
A						
32	<p>The necessary condition of the automatic fuel distribution to units operating in parallel (the active power) is which of the following?</p> <ul style="list-style-type: none"> A. Equal r.p.m. of the motors, B. Equal voltages of generators, C. Equal phase shifts of generators, D. “Speed droop” for each unit is greater than zero. 	<table border="1" style="width: 100%; height: 100%; text-align: center;"> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td>D</td></tr> </table>				D
D						
33	<p>The necessary condition of the proportionate fuel distribution (the active power) to units operating in parallel is which of the following?</p> <ul style="list-style-type: none"> A. The same value of “speed droops” of the units, B. Zero value of “speed droops” of the units, C. the same r.p.m. of engines D. The same frequency of the units. 	<table border="1" style="width: 100%; height: 100%; text-align: center;"> <tr><td>A</td></tr> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> </table>	A			
A						
34	<p>After the electrical loading to the power plant where two unites operate whose speed governors stabilize r.p.m. from SPD1>0, SPD2>0 is connected, the frequency in the steady state</p> <ul style="list-style-type: none"> A. Will not change; B. Will increase; C. Will decrease; D. Will increase first, then decrease. 	<table border="1" style="width: 100%; height: 100%; text-align: center;"> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td>C</td></tr> <tr><td> </td></tr> </table>			C	
C						

35	<p>When the power is proportionately distributed between units operating in parallel, the deviation from the proportional loading should not be greater than which of the following?</p> <p>A. 10 % of the rated loading of the unit, B. 10% of the proportionate loading of the unit, C. 15% of the rated loading of the biggest unit, D. 15% of the proportional loading of the unit.</p>	<input type="text"/> <input type="text"/> <input type="text" value="C"/> <input type="text"/>
36	<p>The speed governor is most often</p> <p>A. A two-step (two level) relay controller, B. A step controller, C. Continuous controller of P type, D. Continuous controller of PI type</p>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text" value="D"/>
37	<p>The reactive power is distributed to generators working in parallel by which of the following?</p> <p>A. A change in the electric loading of the installation, B. A change in the current of one of the generators, C. A change in the excitation current of each generator, D. A change of the system frequency.</p>	<input type="text"/> <input type="text"/> <input type="text" value="C"/> <input type="text"/>
38	<p>When the reactive power is proportionately distributed between generators operating in parallel, the deviation from the proportional loading by the reactive power should not be greater than which of the following?</p> <p>A. 10 % of the reactive power of the generator, B. 10% of the reactive power of the proportional loading of the generator, C. 10% of the reactive power of the biggest generator, D. 15% of the reactive power of the biggest generator.</p>	<input type="text"/> <input type="text"/> <input type="text" value="C"/> <input type="text"/>
39	<p>Uneven loading of units operating in parallel over time after connection to the electricity receivers is caused most often:</p> <p>A. Lagging of the fuel injection rail, B. Clearances in the controls of injection pumps, C. Poor dynamics of the governor (dynamics of governor feedback), D. A poor technical state of the engine.</p>	<input type="text"/> <input type="text"/> <input type="text" value="C"/> <input type="text"/>
40	<p>The Mayer switch performs the following tasks:</p> <p>A. Prevents transmission of the reverse power, B. Prevents overloading the generator, C. Prevents overloading of less important electricity receivers D. Prevents overloading of high power electricity receivers</p>	<input type="text"/> <input type="text" value="B"/> <input type="text"/> <input type="text"/>

41	<p>The backup electricity source should be able to take over the loading after power failure of the basic energy source no later than</p> <p>A. 60 s, B. 50 s, C. 45 s, D. 30 s.</p>	<input type="text"/> <input type="text"/> <input type="text" value="C"/> <input type="text"/>
42	<p>In the process of controlling the fuel viscosity, which of the following is true?</p> <p>A. The amount of fuel supplied to the engine corresponds to the current demand. B. Excess fuel returns to the day tank. C. Steam heaters are exclusively applied. D. Fuel temperature downstream the engine can exceed 135°C.</p>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text" value="D"/>
43	<p>Controlling fuel viscosity is applied in the case of which of the following?</p> <p>A. Fuel of DO type, the so-called "light fuel"; B. Fuel of HFO type, the so-called "heavy fuel"; C. Both DO and HFO fuels; D. Fuel supplied to the boilers of the main drive unit.</p>	<input type="text"/> <input type="text" value="B"/> <input type="text"/> <input type="text"/>
44	<p>In which device of the computer alarm system is the alarm detected?</p> <p>A. In the sensor, B. In the local computer, C. In the measurement transducer.</p>	<input type="text"/> <input type="text" value="B"/> <input type="text"/>
45	<p>What is the function of the sensor in the system?</p> <p>A. Signal processing, B. Measures the physical value, C. Signal transmission.</p>	<input type="text"/> <input type="text" value="B"/> <input type="text"/>
46	<p>If the marine power plant is unmanned, the alarms are signalled:</p> <p>A. In the bridge and in the cabin of the watch mechanic; B. In all public rooms; C. In the control engine room, in the cabin of the watch engineer and in all public rooms.</p>	<input type="text"/> <input type="text"/> <input type="text" value="C"/>
47	<p>The alarm can be acknowledged from which of the following?</p> <p>A. Any alarm panel; B. Any place, after previous cancelling of the sound signal; C. The operator's station, after previous cancelling of the sound signal.</p>	<input type="text"/> <input type="text"/> <input type="text" value="C"/>
48	<p>What is the minimum equipment of the operator station?</p> <p>A. Visual display unit and printer, B. Visual display unit and keyboard, C. PC and printer.</p>	<input type="text"/> <input type="text"/> <input type="text" value="C"/>

49	<p>When is the alarm signalled?</p> <p>A. When the parameter exceeds the limit value, B. If the parameter exceeds the limit value and the delay time lapses, C. If the parameter will be higher/smaller by 10% from the set value.</p>	<input type="checkbox"/> <input checked="" type="checkbox"/> B <input type="checkbox"/>
50	<p>The binary parameter can have the following values:</p> <p>A. 0, 1 and neutral, B. 0, 1, C. -1, 0, +1.</p>	<input type="checkbox"/> <input checked="" type="checkbox"/> B <input type="checkbox"/>
51	<p>When may the operator change the limit value of the parameter?</p> <p>A. Always, B. After entering a password-protected level, C. Never.</p>	<input type="checkbox"/> <input checked="" type="checkbox"/> B <input type="checkbox"/>
52	<p>The trend function shows</p> <p>A. The changes in the parameter values over time, B. The last exceedance of the set value, C. The parameter value predicted in the future.</p>	<input checked="" type="checkbox"/> A <input type="checkbox"/> <input type="checkbox"/>
53	<p>In which devices are the control algorithms for specific subsystems applied?</p> <p>A. In local computers, B. In the operator's computer, C. On the screen of the visual display unit.</p>	<input checked="" type="checkbox"/> A <input type="checkbox"/> <input type="checkbox"/>
54	<p>When AC generators operate in parallel and the loading is between 20 and 100% of the rated power, fluctuations of the current value are permitted within the following limits:</p> <p>A. $\pm 5\%$ of the rated current of the biggest generator, B. $\pm 10\%$ of the rated current of the biggest generator, C. $\pm 15\%$ of the rated current of the biggest generator, D. $\pm 20\%$ of the rated current of the biggest generator.</p>	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> C <input type="checkbox"/>
55	<p>Local control means</p> <p>A. Control from the control engine room, B. Control from the bridge, C. Manual control.</p>	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> C
56	<p>Computer device control must be in one of the following conditions:</p> <p>A. LOCAL, B. REMOTE, C. BLOCKED.</p>	<input type="checkbox"/> <input checked="" type="checkbox"/> B <input type="checkbox"/>

57	SEMI-AUTO operation condition means which of the following? A. The operator can give commands for implementation by the system. B. The system will ignore the operator's commands. C. Computer control does not operate.	<table border="1" style="width: 100%; height: 100%;"> <tr><td style="text-align: center;">A</td></tr> <tr><td> </td></tr> <tr><td> </td></tr> </table>	A			
A						
58	The concept of redundancy means A. Safety, B. Excessive number, C. Paying attention.	<table border="1" style="width: 100%; height: 100%;"> <tr><td> </td></tr> <tr><td style="text-align: center;">B</td></tr> <tr><td> </td></tr> </table>		B		
B						
59	The selection of the visualisation of the specific subsystem in the system menu causes which of the following? A. The occurrence of its graph/parameters on the operator's VDU, B. A printout of information on alarms, C. Deleting parameters of this subsystem.	<table border="1" style="width: 100%; height: 100%;"> <tr><td style="text-align: center;">A</td></tr> <tr><td> </td></tr> <tr><td> </td></tr> </table>	A			
A						
60	PLC controller of COMPACT type consists of the following blocks: A. CPU, MEMORY, INPUT BLOCK, OUTPUT BLOCK, POWER SUPPLY UNIT; B. MASTER, SLAVE, CPU, MEMORY, POWER SUPPLY UNIT; C. MULTIVIBRATOR, INPUT BLOCK, OUTPUT BLOCK, POWER SUPPLY UNIT; D. HIGH SPEED COUNTER, MEMORY, TIMER, D/C CONVERTER.	<table border="1" style="width: 100%; height: 100%;"> <tr><td style="text-align: center;">A</td></tr> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> </table>	A			
A						
61	Timers, counters, recorders, flags belong to which of the following? A. User memory, B. Internal resources, C. Process data memory, D. Input image memory.	<table border="1" style="width: 100%; height: 100%;"> <tr><td> </td></tr> <tr><td style="text-align: center;">B</td></tr> <tr><td> </td></tr> <tr><td> </td></tr> </table>		B		
B						
62	The simplified operational cycle of the programmer is as follows: A. Input reading → program implementation → setting outputs → communication → diagnostics → input reading; B. Reading inputs → communication → setting outputs → diagnostics → program implementation → input reading; C. Diagnostics → setting outputs → program implementation → input reading → diagnostics; D. Output reading → input reading → diagnostics → communication → output reading.	<table border="1" style="width: 100%; height: 100%;"> <tr><td style="text-align: center;">A</td></tr> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> </table>	A			
A						
63	The following signals are transmitted to the binary input of the controller: A. Continuous, B. Binary, C. Modulated, D. Stochastic.	<table border="1" style="width: 100%; height: 100%;"> <tr><td> </td></tr> <tr><td style="text-align: center;">B</td></tr> <tr><td> </td></tr> <tr><td> </td></tr> </table>		B		
B						

64	<p>Analogue outputs of the controller can operate with which of the following actuators:</p> <ul style="list-style-type: none"> A. Control valves, B. Cut-off valves, C. Drives contactors, D. Light indicators. 	<div style="border: 1px solid black; padding: 2px; text-align: center;">A</div> <div style="border: 1px solid black; height: 15px; width: 100%;"></div> <div style="border: 1px solid black; height: 15px; width: 100%;"></div> <div style="border: 1px solid black; height: 15px; width: 100%;"></div>
65	<p>ROTARY BURNER In the case of the rotary burner the primary air is used for which of the following?</p> <ul style="list-style-type: none"> A. Purging the boiler, B. Spraying fuel in the combustion chamber, C. Cooling the photocell, D. The drive of the burner drum. 	<div style="border: 1px solid black; height: 15px; width: 100%;"></div> <div style="border: 1px solid black; padding: 2px; text-align: center;">B</div> <div style="border: 1px solid black; height: 15px; width: 100%;"></div> <div style="border: 1px solid black; height: 15px; width: 100%;"></div>
66	<p>BOILER OF THE MAIN POWER UNIT Controller MASTER controls the boiler of the ship mainly based on the signals from the following transducers:</p> <ul style="list-style-type: none"> A. The flow rate of steam from the boiler, B. Steam pressure in the boiler, C. Answers A and B are correct. D. Fuel pressure in the burners and steam flow intensity received from the boiler. 	<div style="border: 1px solid black; height: 15px; width: 100%;"></div> <div style="border: 1px solid black; height: 15px; width: 100%;"></div> <div style="border: 1px solid black; padding: 2px; text-align: center;">C</div> <div style="border: 1px solid black; height: 15px; width: 100%;"></div>
67	<p>BOILER OF THE MAIN POWER UNIT Controller MASTER controls which of the following?</p> <ul style="list-style-type: none"> A. Steam pressure in the boiler, B. The amount of steam fed to the turbine, C. Firing up the boiler, D. controls r.p.m. of the turbine. 	<div style="border: 1px solid black; padding: 2px; text-align: center;">A</div> <div style="border: 1px solid black; height: 15px; width: 100%;"></div> <div style="border: 1px solid black; height: 15px; width: 100%;"></div> <div style="border: 1px solid black; height: 15px; width: 100%;"></div>
68	<p>ANCILLARY BOILERS IN TANKERS TRANSPORTING PETROLEUM In two boilers operating in combination with the common main steam line when Master - Slave automatic control option</p> <ul style="list-style-type: none"> A. Only Slave boiler operates, and if its loading exceeds 80%, the automation system starts controls and turns on Master boiler which operates in parallel; B. Only Master boiler operates, and if its loading exceeds 60%, the automation system starts and turns on Slave boiler which operates in parallel; C. The boilers operate alternately in the time cycle controlled by the automation system, D. The boilers operate simultaneously controlled by autonomous systems based on the common pressure signal from the transducer of Master boiler. 	<div style="border: 1px solid black; height: 15px; width: 100%;"></div> <div style="border: 1px solid black; padding: 2px; text-align: center;">B</div> <div style="border: 1px solid black; height: 15px; width: 100%;"></div> <div style="border: 1px solid black; height: 15px; width: 100%;"></div>

69	<p>ANCILLARY BOILERS If the boiler is fed in the continuous mode (fixed set point water adjustment level), the amount of water fed to the boiler is controlled by which of the following?</p> <ul style="list-style-type: none"> A. The change in r.p.m. of the feed pump; B. The recirculation valve in the feed pump; C. When the r.p.m. of feed pump are constant, by the control valve controlling the water level in the boiler (valve in the pipeline feeding the boiler); C. When the r.p.m. of feed pump are constant, by the control valve controlling the water level in the boiler (valve in the pipeline feeding the boiler) and by the recirculation valve. 	<div style="border: 1px solid black; width: 40px; height: 40px; margin: 0 auto; display: flex; flex-direction: column; align-items: center;"> <div style="border: 1px solid black; width: 30px; height: 15px; margin-bottom: 2px;"></div> <div style="border: 1px solid black; width: 30px; height: 15px; margin-bottom: 2px;"></div> <div style="border: 1px solid black; width: 30px; height: 15px; margin-bottom: 2px;"></div> <div style="border: 1px solid black; width: 30px; height: 15px; text-align: center;">D</div> </div>
70	<p>ANCILLARY BOILERS The amount of air supplied to the boiler is controlled by which of the following?</p> <ul style="list-style-type: none"> A. The change in dampers at the suction of Forced Draft Fans which supply air to the boiler; B. The change in setting dampers in channels at forcing air by fans; C. The change in the r.p.m. of fans (two-speed fans); D. The change in dampers at the suction of Forced Draft Fans which supply air to the boiler and the application of two-speed fans. 	<div style="border: 1px solid black; width: 40px; height: 40px; margin: 0 auto; display: flex; flex-direction: column; align-items: center;"> <div style="border: 1px solid black; width: 30px; height: 15px; margin-bottom: 2px;"></div> <div style="border: 1px solid black; width: 30px; height: 15px; margin-bottom: 2px;"></div> <div style="border: 1px solid black; width: 30px; height: 15px; margin-bottom: 2px;"></div> <div style="border: 1px solid black; width: 30px; height: 15px; text-align: center;">D</div> </div>