	Utech
Name:	
Roll No.:	A Spring (y Exercising 2nd Explant)
Invigilator's Signature :	

CS/BNS/SEM-1/BNS-105/2011-12 2011

SHIP OPERATION TECHNOLOGY-I

Time Allotted: 3 Hours Full Marks: 70

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

GROUP - A

(Multiple Choice Type Questions)

1. Choose the correct alternatives for the following:

 $10 \times 1 = 10$

- i) Life-boat's falls need to be replaced every
 - a) 2 years
 - b) $2\frac{1}{2}$ years
 - c) $3\frac{1}{2}$ years
 - d) 5 years or earlier if damaged.
- ii) Capacity requirement for a life-boat is
 - a) capable of carrying the total complement on board on either side
 - b) capable of carrying the total complement on board on both sides combined
 - c) capable of carrying all crew on board
 - d) capable of carrying 30 persons.

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iii)	The	protechnics in a life-ra	aft are	A	
	a) 6 rocket parachute flares, 4 hand flares,2 buoyant smoke signals				
	b) 4 rocket parachute flares, 6 hand flares,2 buoyant smoke signals				
	c)	6 rocket parachute flares, 2 hand flares, 2 buoyant smoke signals			
	d)	none of these.			
iv)	Number of sets (nut, bolt, washer) in an international shore coupling is				
	a)	3 sets	b)	4 sets	
	c)	5 sets	d)	none of these.	
v)	v) What is the full form of EPIRB?				
	a)	Emergency Position Indicating Radar Beacon			
	b)	Emergency Position Indicating Radio Beacon			
	c)	Emergency Parallel Indicating Radio Beacon			
	d)	None of these.			
vi)	Minimum number of parachute distress rockets kept on the bridge is				
	a)	6	b)	8	
	c)	10	d)	12.	
vii)	Which of the following is a synthetic fibre ?				
	a)	Manila	b)	Coir	
	c)	Нетр	d)	Nylon.	
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- viii) How many degrees with be at the point SE of the compass?
 - a) 90°

b) 45°

c) 135°

- d) 225°.
- ix) Breaking strength of 6×24 flexible steel wire rope is
 - a) $15 D^2 / 500$ tonnes
 - b) $20 D^2 / 500$ tonnes
 - c) $21 D^2 / 500$ tonnes
 - d) $25 D^2 / 500$ tonnes.
- x) Extinguisher suitable to extinguish a small electrical fire is
 - a) soda acid
- b) foam type

c) DCP

d) none of these.

GROUP - B

(Short Answer Type Questions)

Answer any *three* of the following.

 $3 \times 5 = 15$

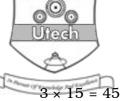
- 2. What are various types of splices? State the uses of each splice.
- 3. Explain in brief the care and maintenance of wire ropes.
- 4. Name various portable fire extinguishers and type of fire they should be used for.
- 5. a) What is the function of HRU? Explain its principle.
 - b) Name various equipment used for indicating the location of survival craft. 3 + 2
- 6. Explain what you mean by life-boat sprinkler system and air support system.

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(Long Answer Type Questions)

Answer any three of the following.



- 7. Draw and explain electrohydraulic steering gear system.
- 8. a) State various LSA carried on Tanker.
 - b) What is the difference between immersion suits, antiexposure suits and thermal protective aids.
 - c) What are various types of life-boats? Explain significant features of each. 5 + 5 + 5
- 9. Write short notes on any *three* of the following: 3×5
 - a) International shore coupling
 - b) Doppler log
 - c) Davits and their operations
 - d) LSA and FFA Plan.
- 10. Describe the three types of Fixed Fire Extinguishing systems. Which type is used in machinery spaces? Which type is used outside machinery spaces?

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