

INDIAN MARITIME UNIVERSITY
(A CENTRAL UNIVERSITY, GOVT OF INDIA)
END SEMESTER EXAMINATION JUN/JULY 2022
BSc (NS) - SEMESTER II
Sub: SHIP OPERATION TECHNOLOGY
UG 21T5205

Max Marks -70 Time : 3 Hrs. Pass Mark – 35
Date: 24.06.2022

PART-A AND PART-B Compulsory
Any five questions from Part C (10 Marks Each)

PART-A

10 X1 =10

Q1

- A: POSITION OF "PANAMALEAD" ON A SHIP
- (a) Starboard side of a ship
 - (b) Aft of a ship
 - (c) Port side of a ship
 - (d) Forward of the ship
- B: PURPOSE OF CHAIN LOCKER
- (a) To keep the ship store
 - (b) To keep the paint
 - (c) To keep fresh water
 - (d) To keep Anchor chain
- C: WHICH KIND OF ROPES USED ON SHIPS
- (a) Coir, Manila , Hemp
 - (b) Polypropylene : Nylon
 - (c) Nylon : Cotton
 - (d) Vegetable fiber ; Synthetic rope and wire rope.
- D: TO FORM 'YARNS' ON FIBRE ROPES
- (a) Fiber twisted right handed
 - (b) Fiber twisted Left handed
 - (c) Fiber twisted Left hand and then right.
 - (d) Fiber without twisting
- E: WHAT IS BUNTING
- (a) Name of Flag
 - (b) Courtesy Flag
 - (c) Type of Material used to make Flags
 - (d) Hoisting a Flag in the Yard arm.
- F: MEANING OF FLAG -'H'
- (a) I require a Pilot
 - (b) I require Assistance
 - (c) I have a Pilot onboard
 - (d) I am carrying dangerous cargo onboard

- G: WHAT IS THE USE OF A BOWLINE
- (a) To make a temporary eye at the end of any rope.
 - (b) To make wiping on a rope
 - (c) To join two ropes
 - (d) To shortening the length of rope.
- H: WHICH CHAPTER OF CODE OF SAFE WORKING PRACTICE EXPLAINING OF PERMIT TO WORK SYSTEMS
- (a) CH - 07
 - (b) CH - 18
 - (c) CH - 27
 - (d) CH - 14
- I: WHAT IS THE PURPOSE OF CODE OF SAFE WORKING PRACTICE
- (a) To make more accident onboard ship
 - (b) To improve Health and safety on board ship
 - (c) To avoid personal risk while loading cargo
 - (d) To improve the officers health only.
- J: BEFORE STARTING A WELDING JOB ONBOARD WHICH WORK PERMIT FORM SHOULD BE FILLED.
- (a) Cold work permit
 - (b) Working aloft / overboard
 - (c) Enclosed entry permit
 - (d) Hot work permit.

PART-B

5 X2=10

Q2

- (a) What are the safety precaution observed before entering an enclosed space.
- (b) Describe cardinal and inter cardinal points on a compass.
- (c) What are the formula to find out the breaking strength of polypropylene, Nylon, 6 x 24 wire rope : Grade 2 stud chain
- (d) What are the Flags to be hoisted while shifting berth during daytime.
- (e) What are the emergency planning for work at height.

PART-C

Q3

- (a) When you are on duty from 0400 hrs to 0800 hrs, What you observe as a watch keeper on bridge. 5
- (b) Explain about care and maintenance of synthetic rope. 5

Q4.

- (a) Find out the safe working Load of a polypropylene rope of 20mm diameter. 5
- (b) Advantages of central heart and construction of wire rope. 5

Q5.

- (a) Boxing of compass from West to North 5
- (b) Briefly explain chapter 2 of code of safe working practice. 5

Q6.

- (a) What are the safety precaution to be observed when you

are on the Mooring Station.

5

- (b) Which are the places normally flags are hoisted on a ship.
Explain briefly. 5
- Q7. (a) What are the meaning of the following Flags on ship
Bravo ; Golf; Hotel; Quebec 5
(b) Explain work permit from for Enclosed space. 5
- Q8. (a) Following equipment's are to be checked before Departure
from the Port, What are they? 5
(b) What are the various type of work permit systems onboard. 5
- Q9. (a) What Bunkering procedure onboard ship 5
(b) What are the initial preparation for bunkering operation 5