Name : ....

Roll No. : ....

Invigilator's Signature : ....

CS/BNS/SEM-3/BNS-304/2009-10

2009

BRIDGE PROCEDURES AND LEGAL KNOWLEDGE

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)   Sea area A_2 is an area which extends upto

    a)   400 nm   b)   300 nm

    c)   150 nm   d)   200 nm.

ii)   Float free satellite EPIRB is required for

    a)   ships sailing in area A_1

    b)   ships sailing in areas A_1 & A_2

    c)   ships sailing in areas A_1, A_2 & A_3

    d)   ships sailing in areas A_1, A_2, A_3 & A_4.

iii)   VHF DSC works on the frequency

    a)   156·425 MHz   b)   156·80 MHz

    c)   154·525 MHz   d)   156·525 MHz.

iv) L-band EPIRB can be used for

   a)   in all sea areas

   b)   only in A_3 area

   c) A_1, A_2 & A_3 areas

   d)   none of these.

v) Sart is activated by Radar with wavelength

   a)   2 cm

   b)   3 cm

   c)   10 cm

   d)   4 cm.

vi) MF/HF transceiver has the provision of

   a)   RT & Morse

   b)   RT & Inmarsal

   c)   R/T only

   d)   RT & Telex.

vii) $M = F_o / \cos \theta$ where

   a) $\cos \theta$ = the angle of incidence of the ray to the layer

   b) $\cos \theta$ = the angle of radiation of the ray

   c) $\cos \theta$ = both (a) & (b)

   d)   none of these.

viii) Maximum power output of VHF DSC routine alert is

   a)   10 watt

   b)   20 watt

   c)   1 kW

   d)   1 watt.

ix) Image channel interference frequency is

   a)   same frequency as IF

   b)   double the IF

   c)   double of incoming frequency

   d)   none of these.

x) Emission J 3E is

   a)   SSB suppressed carrier telephony

   b)   SSB telex

   c)   SSB modulated morse code

   d)   DSB telephony.

GROUP – B

(Short Answer Type Questions)

Answer any *three* of the following.   3 ∞ 5 = 15

2. Explain in brief how the radio waves been used to obtain difference of distance by measurement of time difference or phase difference in the Hyperbolic lattice system.

3. Write short notes on the following :

   a) Radar tuning system

   b) Sea clutter control

   c) Rain clutter control

   d) Variable range marker.

4. Name the main certificates to be carried on a vessel for an International voyage with their validity period.

5. Explain in brief how the hygiene of a ship and welfare of the crew is maintained on board by the Master of that ship.

GROUP – C

(Long Answer Type Questions)

Answer any *three* of the following.   3 ∞ 15 = 45

6. a) What is a Zone Chart relevant to loading of cargo in ships ?   3

   b) M.V. "NORTH STAR" of 23460t DWT on summer draught 12·34 m and TPC 32 is loading from Townsville for Honolulu.

   Her daily fuel consumption 30t and fresh water is 10t per day. A reserve of 5 days fuel and fresh water is to be kept on board at all times.

   Townsville to Honolulu passage time is 10 days. During her passage first $8\frac{1}{2}$ days in tropical zone and remaining $1\frac{1}{2}$ days in summer zone.

   At the time of departure the vessel had 640t of fuel, 160t of fresh water and had unpumpable ballast and stores of 400t.

   Work out how much maximum cargo can be loaded at Townsville without overloading the vessel.   12
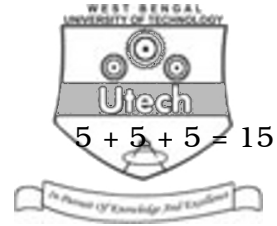
7. Write short notes on the following : 5 + 5 + 5 = 15

   a) Charter parties

   b) Bill of lading

   c) Mates receipts.

8. What is a "official log book" ? Who is in-charge of that log book ? How would you make a log entry when an offence has been created by a seaman by smoking on deck of a Tanker which was carrying Diesel Oil. 15

9. Define any three of the following : $3 \infty 5 = 15$

   a) Lay Days

   b) Voyage charter

   c) Time charter

   d) Bare boat charter.

10. a) Under what circumstances can shipping master detain an Indian ship ?

    b) What is note of protest and when can it be lodged ?

    10 + 5