

Time Allotted : 3 Hours

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 <br> ( Objective Type Questions )

1. Answer the following very briefly : $10 \times 1=10$
a) Which volume of ALRS deals with maritime safety information?
b) What is Temporary \& Preliminary Correction ?
c) What is significance of chart catalogue?
d) What is neap tide ?
e) Define natural scale.

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f) Which volume of list of lights and fog signals cover India?

g) What is the duty of a look-out man?
h) What is the use of Routing Charts ?
i) What is the day-signal of a vessel engaged in fishing ?
j) What is leading light ?

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            GROUP - B
(Short Answer Type Guestions )
Answer any three of the following. \(3 \times 5=15\)
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2. What information do you get in weekly notices to mariners ?
3. Explain how chart corrections are done.
4. What is TSS as mentioned in COLREG ?
5. Explain briefly the duties of a STAND ON vessel.
6. When can you deviate from collision regulation ? Which rule authorizes you to do so ?

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Question Nos. 7 and 8 are compulsory and attempt any one from the remaining.
7. Find the error to be applied to the sounding after taking a cast of lead off Mumbai at 1451 hrs L.M.T. on the first (1st) March, 1992 before comparing it with the chart. The extract from A.T.T. for the day under reference are given below :

Extract from A.T.T.

Lat $18^{\circ} 55^{\prime} \mathrm{N}$

Long $72^{\circ} 50^{\prime} \mathrm{E}$

Time zone - 5 H 30 M .

Time Height

| 0049 | - | 4.4 m |
| :--- | :--- | :--- |
| 0700 | - | 0.9 m |
| 1300 | - | 4.2 m |
| 1851 | - | 1.0 m. |

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8. While steering $336^{\circ}(\mathrm{T})$ at 12 knots, the following observations of a target were made on the radar screen

| Ship's time | Bearing | Range |
| :---: | :---: | :---: |
| 1100 | $050^{\circ}(\mathrm{T})$ | $5 \cdot 50$ Miles |
| 1106 | $050^{\circ}(\mathrm{T})$ | $4 \cdot 25$ Miles |

Find :
a) Time and range at CPA
b) Course and speed of target
c) Aspect at 1106 .

At 1109 own ship altered course $20^{\circ}$ to starboard and reduced speed to 8 knots.
d) Find the new range and time at CPA. $4+4+2+5$
9. Explain actions to be taken by VSLS in restricted visibility under rule no. 19 of ROR.
10. a) What are the advantages of shore based meteorological routing services ? Explain the limitations of various factors taken in shore based meteorological routing services.
b) What is Pilot card ? What is your duties as a 3rd mate during pilot on board? $10+5$

