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***B.Tech. Degree IV Semester Supplementary Examination in  
Marine Engineering April 2021***

**MRE 1406 SEAMANSHIP AND NAVIGATION  
(2013 Scheme)**

Time: 3 Hours

Maximum Marks: 100  
(5 × 20= 100)

- I. (a) Draw a neat sketch of an anchor and name the parts.  
(b) Briefly explain  
(i) Chain stopper  
(ii) Anchor lashing
- OR**
- II. (a) Explain what is hawse pipe and chain locker.  
(b) What do you understand by the following terms:  
(i) Anchor a-cockbill  
(ii) Anchor aweigh  
(iii) Anchor dragging  
(iv) Anchor brought up
- III. (a) Describe the two types of compasses on a vessel and their working principles.  
(b) Explain what are the errors of a magnetic compass.
- OR**
- IV. (a) What is Sextant? What is it used for? Explain the working principle of a sextant.  
(b) With the aid of a neat diagram explain the construction and working of an aneroid barometer.
- V. (a) What are pyrotechniques. Name and quantity of pyrotechniques kept on bridge and in the lifeboat?  
(b) Name the equipments available in a life raft?
- OR**
- VI. (a) What is Hypothermia? What are the actions to take in case a seafarer is having hypothermia?  
(b) What is an EPIRB? What are the different types of EPIRB? How and when it is used?
- VII. Draw a neat sketch of a vessel moored alongside in port showing all mooring lines with their names.
- OR**
- VIII. What is the use of navigational light? Draw a neat sketch of a power driven vessel, showing the horizontal sectors of their navigational lights.
- IX. Explain the following Knots and their uses  
(a) Bowline  
(b) Figure of eight  
(c) Clove Hitch  
(d) Reef knot
- OR**
- X. Explain what is MARPOL? How many annexes are there in MARPOL? What are they?