

Enrolment No./Seat No _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VII EXAMINATION – SUMMER 2025

Subject Code:3170623

Date:08-05-2025

Subject Name:Port and Harbour Engineering

Time:02:30 PM TO 05:00 PM

Total Marks:70

Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Simple and non-programmable scientific calculators are allowed.

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| Q.1 | (a) | Give classification of harbors. | 07 |
| | (b) | Mention factors considered for selection of location of a harbor. | 07 |
| Q.2 | (a) | State requirements for a harbor. | 07 |
| | (b) | Mention facilities of a good port. | 07 |
| OR | | | |
| | (b) | Explain ANY FIVE characteristics of a ship with sketches. | 07 |
| Q.3 | (a) | Explain Lunar day. Explain the causes of tides. | 07 |
| | (b) | Explain Spring tide, Neap tide and Mean Sea Level with sketch. | 07 |
| OR | | | |
| Q.3 | (a) | Explain wind rose, its construction and its use. | 07 |
| | (b) | Draw neat titled sketches of different types of breakwaters. | 07 |
| Q.4 | (a) | Draw a neat titled sketch showing harbor layout with various components. | 07 |
| | (b) | Discuss factors affecting size of a harbor. | 07 |
| OR | | | |
| Q.4 | (a) | Discuss factors affecting size of turning basin. | 07 |
| | (b) | Discuss factors affecting width of harbor entrance. | 07 |
| Q.5 | (a) | Explain working of dry dock having lock gates with a sketch. | 07 |
| | (b) | Write short note on floating dock with a sketch. | 07 |
| OR | | | |
| Q.5 | (a) | State uses of light house, buoys, bollard and dolphin. | 07 |
| | (b) | State purpose of dredging, types of dredging and their suitability. | 07 |
