| Seat No.: | Enrolment No |
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GUJARAT TECHNOLOGICAL UNIVERSITY

ME - SEMESTER IV (NEW) - • EXAMINATION - WINTER 2016

Subject Code: 2741303 Date: 26/10/2016

Subject Name: Docks 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.

| Q | 1 (a) (b) | and the state of the development of the minon. | 07 07 |
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| Q | .2 (a) (b) | Distinguish between Harbour, Port and Dock. Discuss the factors affecting in selection of site for harbour. | 07 07 |
| | (b) | Describe the stages and surveys involved in harbour planning. | 07 |
| Q | 3 (a) (b) | Explain with sketches effect of wind on harbor structures. Describe 'Littoral Drift' and its effect on harbour. OR | 07 07 |
| Q | 3 (a) (b) | Explain with sketches effect of waves on harbor structures. Distinguish between 'spring tide' and 'neap tide'. What are the effects of tides on harbor structures? | 07 07 |
| Q | 4 (a) (b) | What are the design factors shall be considered in construction of vertical wall type of break waters? Differentiate with sketch 'wharf' and 'jetty'. | 07 07 |
| Q. | 4 (a) (b) | Explain with sketches different types of 'lock gates'. Explain with sketches different types of 'dolphins' and 'mooring accessories'. | 07 07 |
| Q. | 5 (a) (b) | Discuss with sketches different types of cargo handling equipments used on port. How will you forecast the cargo and passenger demand for the port? OR | 07 07 |
| Q. | 5 (a) | Discuss with sketches different types of dredgers used in harbour area with their suitability. | 07 |
| | (b) | Discuss various positive and negative impacts of port activities. | 07 |
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