

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VIII (OLD) EXAMINATION – SUMMER 2019

Subject Code: 180602

Date: 09/05/2019

Subject Name: Dock Harbour & Airport Engineering

Time: 10:30 AM TO 01:00 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)** What is necessity of dredging? List different types of Dredgers. Explain Grab dredger. **07**
- (b)** Discuss about Buoys and Light-house. **07**
- Q.2 (a)** Why fenders are provided on docking platform? Explain types of fender with sketch. **07**
- (b)** What is Gravity dock? Explain the method of dry docking. **07**
- OR**
- (b)** Enlist major sea ports in India and Gujarat. **07**
- Q.3 (a)** Draw the schematic diagram of harbour layout showing all components and explain in brief. **07**
- (b)** Explain methods of protection of breakwater. **07**
- OR**
- Q.3 (a)** What is wind-rose diagram? What are its uses in harbour engineering? **07**
- (b)** Enlist different types of breakwater. Describe anyone with neat sketch. **07**
- Q.4 (a)** What are the different characteristics of an aircraft which affect planning and design of an airport? **07**
- (b)** Describe airport master planning process as per ICAO recommendation. **07**
- OR**
- Q.4 (a)** What are the elements to be considered in the geometric design of runway? **07**
- (b)** Discuss factors affecting airport site selection. **07**
- Q.5 (a)** What is function of taxiway? Draw cross-section of taxiway showing all components. **07**
- (b)** Describe the facilities provided in the terminal building. **07**
- OR**
- Q.5 (a)** Explain the various marking on runway with sketch. **07**
- (b)** What is airport grading? What is its importance? **07**
