

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**
