

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER-VIII • EXAMINATION – SUMMER 2014

Subject Code: 180602**Date: 31-05-2014****Subject Name: Dock, Harbour and 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) Explain the procedure for constructing break water. **07**
(b) Describe air craft and its characteristics. **07**
- Q.2** (a) Write short note on **07**
(i) Runway marking
(ii) Light house.
(b) Give classification of break water and explain any one. **07**
- OR**
- (b) Calculate the actual length of the runway from the following data: **07**
Airport elevation: 150m RL
Mean of the average daily temperature: 40⁰ C
Mean of the maximum daily premature: 47⁰ C
Basic length of runway: 800 m
Highest point along the length: 99.2m RL
Lowest point along the length: 95.2m RL.
- Q.3** (a) Enlist different types of locks and explain any one. **07**
(b) What are the functions of taxiway in airport? Draw sketch of taxiway showing all components. **07**
- OR**
- Q.3** (a) What is the purpose of the navigation aids? Explain any one type of navigation aids. **07**
(b) Write a short note on runway lighting and visual aids. **07**
- Q.4** (a) Explain silting, erosion and littoral drift. **07**
(b) Enlist the factors to be considered in airport planning. **07**
- OR**
- Q.4** (a) Write short note on harbour maintenance. **07**
(b) Write the advantages and disadvantages of aviation. **07**
- Q.5** (a) Enlist different types of bouys. Explain any one. **07**
(b) Explain **07**
(i) Pay load and zero fuel weight
(ii) Subsonic aircraft and supersonic aircraft
- OR**
- Q.5** (a) Explain with neat diagram the action of various forces under the influence of the wave. **07**
(b) Write short note on importance of grading and drainage in Airport. **07**
