

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

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

Subject Code:2180602

Date:13/05/2019

Subject Name: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 the significance of water transportation? **03**
 - (b) Describe aeroplane component parts with neat sketch. **04**
 - (c) Discuss basic patterns or configuration of the runways with neat sketches. **07**
- Q.2**
- (a) Discuss airport master planning process as per ICAO recommendations. **03**
 - (b) Explain different characteristics of an aircraft. **04**
 - (c) Explain wind rose diagram showing direction, duration and intensity of wind. **07**
- OR**
- (c) Discuss classification of harbour based on different criteria. **07**
- Q.3**
- (a) Write short note on littoral drift. **03**
 - (b) Explain aircraft parking systems with neat sketches. **04**
 - (c) Enlist and explain corrections to be applied to basic runway length. **07**
- OR**
- Q.3**
- (a) Discuss importance of grading and drainage in airport. **03**
 - (b) Explain in brief: (1) Exit taxiway (2) Holding apron. **04**
 - (c) What are the facilities provided in terminal building? Also draw typical layout of airport terminal building. **07**
- Q.4**
- (a) Discuss harbour maintenance. **03**
 - (b) Enlist different types of dolphins. Explain any one. **04**
 - (c) What is dredging? Enlist the different types of dredgers and explain any one. **07**
- OR**
- Q.4**
- (a) Compare mound type and wall type breakwaters. **03**
 - (b) Enlist different types of locks and explain any one. **04**
 - (c) Discuss buoys, beacons and light house. **07**
- Q.5**
- (a) Discuss transit shed in brief. **03**
 - (b) Write a note on visual aids and runway lighting. **04**
 - (c) Explain by drawing sketch shallow waves and deep waves. **07**
- OR**
- Q.5**
- (a) Distinguish between Jetty and Wharves. **03**
 - (b) What is the function of a hanger? Explain the Nose hangers and T hangers with neat sketch. **04**
 - (c) What is floating dock? Give its advantages and disadvantages. **07**
