

GUJARAT TECHNOLOGICAL UNIVERSITY**BE SEM-VIII Examination May 2012****Subject code: 180602****Subject Name: Dock Harbour & Airport Engineering****Date: 12/05/2012****Time: 10.30 am – 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 in detail advantages and disadvantages of air transport. **07**
 (b) Draw the schematic diagram of harbour layout showing all components. **07**

Q.2 (a) What are functions of director general of civil aviation? **07**
 (b) Enlist the major sea ports in India and in Gujarat also. **07**

OR

(b) What is the significance of water transportation compare to other modes of transportation? Explain in detail. **07**

Q.3 (a) (i) define terms:- tides, turning basin breakwater, draft **04**
 (ii) draw sketch of floating buoy **03**
 (b) Give the classification of airports as per I.C.A.O. **07**

OR

Q.3 (a) How the water waves are generated? Explain by drawing sketch shallow waves and deep waves. **07**
 (b) Describe aeroplane components parts draw sketch. **07**

Q.4 (a) What is function of taxiway in airports? Draw cross sections of taxiway showing all components. **07**
 (b) What are dry docks? Draw sketch of dry graving dry dock. **07**

OR

Q.4 (a) The length of runway at sea level under standard condition at zero gradient is 1500.m The airport site is at an elevation of 900.m the reference temperature is 20°C the proposed runway permits ascending gradient of 0.5 % design the longitudinal profile of runway **07**
 (b) Why fenders are provided on docking platform? Draw the sketch of wooden and rubber fenders. **07**

Q.5 (a) Explain by drawing sketch wind rose diagram type II showing direction, duration and intensity of wind. **07**
 (b) What are the purposes of airport terminal building? draw layout of airport terminal building **07**

OR

Q.5 (a) What is necessity of dredging? explain mechanical dredgers **07**
 (b) Describe airport master planning process as per ICAO recommendations **07**
