

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**PDDC - SEMESTER – VII • EXAMINATION – WINTER 2012**

**Subject code: X 70602****Date: 27/12/2012****Subject Name: Dock, Harbour and Airport****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 the classification of Harbour with neat ketch. **07**  
(b) Explain : (i) Littoral drift (ii) Neap tide **07**  
(iii) Spring tide (iv) Fetch
- Q.2** (a) What are the Special Breakwaters? Explain with sketch. **07**  
(b) What are Dolphins? Describe their types. **07**  
**OR**  
(b) Explain the methods of constructing Mound Breakwater” **07**
- Q.3** (a) Write a short note on **07**  
(i) Light house  
(ii) Transit sheds  
(b) Explain various types of Floating docks. **07**  
**OR**
- Q.3** (a) Explain various component parts of Aeroplane with sketch. **07**  
(b) Explain the classification of Airports. **07**
- Q.4** (a) Explain the utility of Wind rose diagram. **07**  
(b) What are the geometric elements of Runway? Explain **07**  
**OR**
- Q.4** (a) An airport is proposed at an elevation of 300 m above the mean sea level. The mean of maximum and mean of average daily temperature in summer month are 43<sup>0</sup> C and 28<sup>0</sup> C respectively. The difference in elevation at the proposed site is 5 m. If the basic runway is 1100 m, calculate the actual length of runway to be provided. **07**  
(b) Explain the meaning of balanced field concept. **07**
- Q.5** (a) Explain the Runway pattern with sketch. **07**  
(b) Write a short note on “Devices to protect from Jet Blast” **07**  
**OR**
- Q.5** (a) Write a short note on **07**  
(i) Threshold Marking  
(ii) Runway Marking  
(b) What is the function of Hangar? What are its types? **07**

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