Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

PDDC - SEMESTER–VII • EXAMINATION – WINTER 2013

Subject Code: X70602 **Date: 05-12-2013**

Subject Name: Dock, Harbour and Airport Engineering

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 components parts of an aeroplane with neat sketch.	**07**
	(b)	Write a short note on "Wind rose diagram"	**07**
Q.2	**(a)**	Calculate the actual length of the runway from the following data Airport elevation – RL 150 m Airport reference temperature - 30^0C Basic runway length – 800 m Highest point along the length – RL 148 m Lowest point along the length – RL 146 m	**07**
	(b)	Discuss the four basic pattern of the runways.	**07**
		OR	
	(b)	Describe the various system of the aircraft parking.	**07**
Q.3	**(a)**	Write a short note on "Taxiway marking"	**07**
	(b)	What are the factors affecting airport lighting? Explain	**07**
		OR	
Q.3	**(a)**	Explain various types of imaginary surfaces.	**07**
	(b)	Explain the functions of Airport authority of India.	**07**
Q.4	**(a)**	Define – Neap tide, spring tides, Diurnal tides, Tidal range, Ballast, Displacement load, Harbour	**07**
	(b)	Classify the different types of breakwaters. Under what condition a rubble mound breakwater is preferred?	**07**
		OR	
Q.4	**(a)**	Write a short note on "Dolphins and Quay"	**07**
	(b)	Describe the construction procedure of mounds.	**07**
Q.5	**(a)**	Write a short note on "Mumbai port"	**07**
	(b)	Explain the difference between Dry dock and wet dock.	**07**
		OR	
Q.5	**(a)**	Enlist the type of dredger. Describe the function of each types of dredger.	**07**
	(b)	Write a short note on "Tetrapods".	**07**

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