Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

PDDC SEMESTER VII– EXAMINATION – SUMMER 2017

Subject Code: X70602 **Date: 01/05/2017**

Subject Name: Dock, Harbour and Airport Engineering

Time: 02.30PM to 05.00PM **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)**	State the major objectives of national association of port authorities.	**07**
	(b)	Define anchorage area, offshore moorings, draft, transit shed, plimsoll mark, net tonnage and bulkhead line.	**07**
Q.2	**(a)**	Explain briefly the classification of harbour based on utility.	**07**
	(b)	What is wind rose diagram? What are its uses?	**07**
		OR	
	(b)	Explain briefly the guiding principles of port planning for efficient operation.	**07**
Q.3	**(a)**	Differentiate between mound type and vertical wall type breakwaters.	**07**
	(b)	What are groynes? State the purposes of it.	**07**
		OR	
Q.3	**(a)**	Why fenders are provided on docking platform? Explain briefly wooden and rubbers fender.	**07**
	(b)	State the purposes of navigational aids. Explain briefly beacon lights.	**07**
Q.4	**(a)**	State briefly the objectives of International Civil Aviation Organization.	**07**
	(b)	Explain briefly the factors affecting runway orientation?	**07**
		OR	
Q.4	**(a)**	What do you mean by regional planning of airport and state the objectives of it.	**07**
	(b)	What is the function of hangar? State the requirements of a good hangar site?	**07**
Q.5	**(a)**	Explain briefly the planning concept of airport terminal building.	**07**
	(b)	What is airport grading? Why proper grading of an airport site is important?	**07**
		OR	
Q.5	**(a)**	Write a short note on vehicular parking and circulation network at the airport?	**07**
	(b)	What is instrument landing system? State the limitations of it.	**07**

****