Seat No.: _____ *Enrolment No._____*

GUJARAT TECHNOLOGICAL UNIVERSITY

ME – SEMESTER II– • EXAMINATION – SUMMER 2017

Subject code: 2724311 **Date:30/05/2017**

Subject Name: Off-Shore structures

Time: 02:30 PM to 05:00 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)**	Define wave load and concept of analysis used for it.	**07**
	(b)	Give factors affecting material selection for offshore structure.	**07**
Q.2	**(a)**	What is the effect of wave forces on vertical piles?	**07**
	(b)	Explain " installation of jacket tower".	**07**
		OR	
	(b)	What type of loads and load combination are used for foundation of offshore structure?	**07**
Q.3		Explain installation method for crossing pipeline with neat schematic diagram.	**14**
		OR	
Q.3		What do you mean by "Dynamic model" in offshore structure?	**14**
Q.4		Enlist wave theories and explain any TWO in detail.	**14**
		OR	
Q.4		Explain analytical modeling of offshore structure.	**14**
Q.5	**(a)**	Enlist types of offshore structure.	**07**
	(b)	Explain in detail the analysis of "Deck Structure".	**07**
		OR	
Q.5	**(a)**	Enlist and explain principle components of mooring system.	**07**
	(b)	Explain "Point to be considered for design basis document for offshore pipeline".	**07**