

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VI (NEW) EXAMINATION – WINTER 2018****Subject Code:2160601****Date:16/11/2018****Subject Name:Advanced Construction and Equipments****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.

		MARKS	
Q.1	(a)	Enlist the different type of cast in situ pile. Explain Simplex pile in detail	03
	(b)	Discuss the different causes of failure of piles.	04
	(c)	What is a cassion? Explain with sketch well type of cassion.	07
Q.2	(a)	Define the term with sketches 1) Stop- end pipe 2) Guide wall	03
	(b)	Explain vibro flotation a ground water control technique.	04
	(c)	What is coffer dam? Enlist the different type of coffer dam and explain any one with sketch.	07
OR			
Q.3	(c)	Write a short note on “Diaphragm wall construction.	07
	(a)	Define the term 1) Rim pull 2) Draw bar pull 3) Gradability	03
	(b)	What is owning and operating cost of equipment	04
	(c)	What is formwork? Discuss the formwork of RCC Beam and wall with neat sketches.	07
OR			
Q.3	(a)	What is a tall structure?	03
	(b)	Where the slip form work can be used? Explain with neat sketch.	04
	(c)	Enlist various methods of demolition and explain any two in detail.	07
Q.4	(a)	Differentiate between Precast pile Vs Cast in situ pile.	03
	(b)	Why Bulldozer is an versatile equipment? Explain with reason.	04
	(c)	Enlist the different Excavating equipment. Explain with sketches of Power shovel.	07
OR			
Q.4	(a)	Define the term 1) Depreciation 2) Scrape value 3) Obsolesce	03
	(b)	Discuss the causes of failure of false work.	04
	(c)	Write a short note on Tunnel Boring Machine.	07
Q.5	(a)	Define: (1) Pile Shoe (2) Down time cost (3) Owing cost	03
	(b)	Write the importance of Air compressor.	04
	(c)	Calculate the depreciation for each year by Straight line method for the Back hoe loader having purchase cost of Rs 26,00,000/- and scrap value at the end of useful life of five years equal to 10% of its original purchase price	07

OR

- Q.5**
- (a) Write advantages and disadvantages of Trenching machine. **03**
 - (b) Draw a neat sketches of different component of Concrete Batching plant. **04**
 - (c) Enlist the different type of lifting equipment. Explain with sketches of Tower Crane. **07**
