

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER- VI EXAMINATION – SUMMER 2020

Subject Code: 2160601

Date: 28/10/2020

Subject Name: ADVANCED CONSTRUCTION AND EQUIPMENTS

Time: 10:30 AM TO 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.

		MARKS
Q.1	(a) Give difference between End bearing pile and Load bearing pile	03
	(b) Explain Rock fill cofferdam	04
	(c) Give selection criteria for selection of various construction Equipments	07
Q.2	(a) Give sketch of Well pointing of Deep excavation	03
	(b) Describe power shovel	04
	(c) Explain Under reamed pile with sketch	07
	OR	
	(c) For an Engine following are the details . work out the owning and operating cost Engine :: 150 HP Crank case capacity :: 35 liter Useful life :: 5 years Time between oil change :: 100 Hours Weight :: 80 tones Price :: Rs. 1500000 Operating factor :: 0.62 Freight charges :: Rs 35 /tonne Unloading and other charges :: Rs. 600 Hours Used per year :: 6200 Hours	07
Q.3	(a) What are the uses of Drag line ?	03
	(b) Explain Clamshells	04
	(c) Describe Gantry crane and Whirler crane	07
	OR	
Q.3	(a) Enlist different methods of controlling ground water	03
	(b) Describe rolling resistance and Coefficient of traction	04
	(c) Describe form work for Floors	07
Q.4	(a) Give classification of Equipments as per the type of work equipments performs	03
	(b) Describe factors affecting output of drag line	04
	(c) With sketch explain floating of caissons	07
	OR	
Q.4	(a) Describe pulley and sheave block	03
	(b) Describe caisson sickness	04
	(c) Explain design features of formwork	07

- Q.5** (a) Explain drill bits **03**
(b) Draw sketch of basic parts of all four systems belt conveyor **04**
(c) Explain structural systems of tall structures **07**
- OR**
- Q.5** (a) Draw sketch of Hoe showing basic parts **03**
(b) Describe Jaw crusher **04**
(c) Explain procedure for safe demolition of structures **07**

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