

B.Tech Sem – V (2007 Course) (Civil Engg.) : SUMMER - 2019
SUBJECT: CONSTRUCTION OPERATIONS & EQUIPMENTS

Day : Saturday
Date : 11/05/2019

S-2019-3058

Time : 10.00 AM TO 01.00 PM
Max Marks : 80

N.B. :

- 1) **Q.No.1 and Q.No.5 are COMPULSORY.** Out of the remaining questions attempt **ANY TWO** questions from each section.
 - 2) Answers to both the sections should be written in **SEPARATE** answer books.
 - 3) Figures to the right indicate **FULL** marks.
 - 4) Assume suitable data if necessary.
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SECTION – I

- Q.1**
- a) What are the erection techniques for high rise buildings? (05)
 - b) Explain the precautions to be taken during hot-weather concreting (05)
 - c) Explain with neat diagram “ Double sheet pile cofferdam” (04)
- Q.2**
- a) Why it is essential to have mechanization of construction industry? (05)
 - b) What are the advantages of high-rise structures? (04)
 - c) Explain following types of construction (04)
i) Medium duty ii) Heavy duty
- Q.3**
- a) What are the operations involved in sinking of wells? (05)
 - b) Differentiate between positive skin friction and negative skin friction (04)
 - c) Explain the technique of “Dredging” in detail (04)
- Q.4**
- a) Explain the procedure of tremix concreting (05)
 - b) Draw a line diagram of crushing plant (04)
 - c) Explain “micro-tunneling” In detail (04)

SECTION – II

- Q.5**
- a) Draw a labeled sketch of : (05)
i) Dragline ii) Backhoe
 - b) What is the use of geosynthetics in retaining walls? Explain different techniques for laying geosynthetic material (05)
 - c) Explain the necessity of record keeping machineries on construction site (04)
- Q.6**
- a) Draw a labeled sketch of (05)
i) Dozer ii) Scrapper
 - b) Explain following terms in detail (04)
i) Lead ii) Lift
 - c) State the difference between Hoe and Dragline (04)
- Q.7**
- a) What are the different types of rollers? explain use of each (05)
 - b) Explain the detailed construction procedures Gabian wall (04)
 - c) Explain the different problems occurring during operation of pumps (04)
- Q.8**
- a) Explain any four methods of welding with their suitability (05)
 - b) Explain following terms in detail (04)
i) Overhead cost ii) Operating cost
 - c) State the applications of compressed air in construction operations (04)

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