

**B.TECH SEM – V (2007 COURSE) (CIVIL ENGG.) : WINTER -  
2017**

**SUBJECT : CONSTRUCTION OPERATION & EQUIPMENTS**

Day : **Saturday** Time : **02.30 PM TO 05.30 PM**  
Date : **13/01/2018** **W-2017-2450** 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 the **SEPARATE** answer books.
- 3) Draw neat and labeled diagrams **WHEREVER** necessary.
- 4) Figures to the right indicate **FULL** marks.
- 5) Assume suitable data if necessary.

**SECTION – I**

- Q.1** a) What is the role of construction industry in national development? [05]  
b) Differentiate between cofferdams and caissons. [05]  
c) Explain the terms: i) Shotcreting ii) Guniting. [04]
- Q.2** a) What are the advantages and disadvantages of high rise structures? [05]  
b) Explain following types of construction: [04]  
i) Light ii) Heavy Duty.  
c) Discuss necessity of mechanization in construction industry. [04]
- Q.3** a) Enlist different dredging techniques. Explain any one. [05]  
b) What are the different steps involved in sinking of caissons. [04]  
c) Define: i) Positive skin friction ii) Negative skin friction. [04]
- Q.4** a) Differentiate between Aluform and slipform shuttering. [05]  
b) What are different grouting methods? Explain. [04]  
c) Explain concept of micro tunneling. [04]

**SECTION – II**

- Q.5** a) Enlist and explain factors affecting selection of earth moving equipments. [05]  
b) Explain drill and blast method. [05]  
c) What are different welding techniques? [04]
- Q.6** a) Comment on the output and economics of following equipment: [05]  
i) Dragline ii) Scrappers.  
b) Write a short note on “Estimation and economics of the equipment”. [04]  
c) What is the importance of record keeping of equipment? [04]
- Q.7** a) Explain Gabian Walls with neat sketch. [05]  
b) What are different pneumatic drilling equipment? [04]  
c) Enlist different paving equipment. [04]
- Q.8** a) Write a short note on generators. [05]  
b) Explain different types of compressors. [04]  
c) Comment on “Mode of Payment” for machineries. [04]

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