

59  
BE/CIVIL/SEM-VIII CBSGS / Construction Engg

18/5/16

QP Code : 732102

( 3 Hours )

[ Total Marks : 80

- N.B.:** (1) Question No.1 is compulsory  
(2) Answer any three (3) questions from the remaining.  
(3) All questions carry equal marks.

1. Write short notes on the following with neat sketches wherever necessary.
- DIAPHRAGM WALL
  - Mechanical Moles
  - DRAGLINE
  - BULLDOZER
2. Find the OWNING COST & OPERATING COSTS for a construction equipments 20  
used in the large site with following given data:  
PURCHASE COST= Rs.15 Lakhs  
USEFUL LIFE = 10 Years (2000 Hrs. per Year)  
OPERATING FACTOR = 0.65  
ENGINE = 40 H.P (Diesel Type)  
SALVAGE VALUE = 10% of PURCHASE COST  
MAINTENANCE & REPAIRS = 85% OF DEPRECIATION  
INVESTMENT COST = 12% OF Average Annual Investment  
Lubricating Oil = 20% of Fuel Cost  
Labour Cost = Rs.15, 000/- per month  
Assume any other data, if missing, as per the rules and state the same while  
doing all the detailed calculations.
3. (a) Draw neat sketch for "TUNNEL BORING MACHINE" and explain in detail 10  
how it works for tunneling purpose.  
(b) Draw neat sketch for "WELL-POINT SYSTEM" and how it works on the 10  
large site.
4. (a) Draw neat sketches for "Jaw Crusher" and "Gyratory Crusher" and explain 10  
them how work.  
(b) Explain in detail about "Mass Concreting" and "Vacuum Concreting" along 10  
with sketches.

[ TRUN OVER

MUPD16025 ANJUMAN IITMS KALSAI TECHNICAL CAMPUS

COLLEGE OF ENGINEERING, NEW PANVEL 18-05-2016 09:36:59

QP Code : 732102

-2 -

5. (a) Explain about the following:
- (i) PILE DRIVING HAMMERS 5
  - (ii) CENTRIFUGAL PUMP 5
- (b) Explain the following with neat sketches:
- (i) Lining of Tunnels & Ventilation in Tunnels 5
  - (ii) Air Compressor 5
6. Explain any four(4) from the following with neat sketches 20
- (a) TYPES OF CLADDING
  - (b) SAND DRAINS
  - (c) ROCK ANCHORS
  - (d) FOUNDATION GROUTING
  - (e) JACK HAMMERS
  - (f) ROLLERS & COMPACTORS
  - (g) Methods of "Depreciation" and formula for each method.

MS KALSEKAR TECHNICAL CAMPUS, COLLEGE OF ENGINEERING, NEW PANVEL 18-05-2016 09:37:28