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**Total Number of Pages: 2** 

B.TECH PECI 5408

## 8<sup>th</sup> Semester Regular / Back Examination 2016-17 CONSTRUCTION EQUIPMENTS, PLANNING AND MANAGEMENT BRANCH: CIVIL

Time: 3 Hours Max Marks: 70 O.CODE: Z147

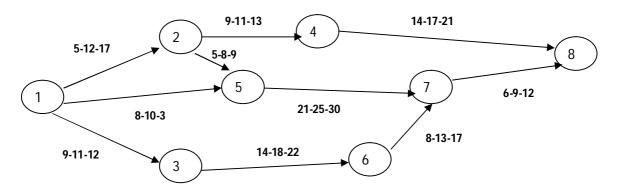
Answer Question No.1 which is compulsory and any five from the rest.

The figures in the right hand margin indicate marks.

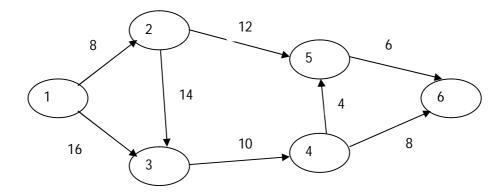
## Q1 Answer the following questions:

 $(2 \times 10)$ 

- a) What are all the various forms of earth movers?
- b) What are all the compacting equipments?
- c) What are all the operations conducted with the help of scrapers?
- **d**) Draw the sketch of fixed mast tower crane and show its different parts.
- e) What is the significance of critical path?
- f) What is quality assurance?
- g) What do you mean by ownership cost and operating coast?
- **h**) What do you mean by Notice inviting tender?
- i) What is unit rate contract?
- j) What are the powers of an arbitrator?
- With appropriate diagrams, describe the working and applications of any excavating equipment. (10)
- Q3 Why are cranes used? What are different types of cranes? Describe. (10)
- In the network shown below, the three time estimates for each of the activities are indicated. Calculate the variance and the expected time for each activity. Enter the values in a tabular form



- Q5 For the below network find:
  - a) Critical Path, Total completion time (in Days) (5)
  - b) Total float, Free float (5)



- Q6 a) What is tender form? Discuss about all the steps in evaluation of a tender.
  - **b)** What is labour contract? Write its advantages and disadvantages. (4)
- What do you mean by Arbitration? What should be the qualification of an arbitrator? How a disputes solved by arbitration?

## Q8 Write Short Notes (Any Two) (5 x 2)

- a) Pile driving equipments
- b) Earth movers
- c) Safety in construction
- d) Percentage rate contract