Reg. No:

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)
M.Tech I Year II Semester (R16) Regular Examinations June 2017
CONSTRUCTION PROJECT MANAGEMENT
(Structural Engineering)
(For Students admitted in 2016 only)

Time: **3 hours**   Max. Marks: **60**

(Answer all Five Units **5 X 12 =60** Marks)

UNIT-I

1 a Discuss characteristics of construction management   6M
   b Give detailed account on various phases of construction management.   6M

OR

2 Write short notes on the following:
   a. Project life cycle
   b. Professional construction management
                                                                                                                  6M

UNIT-II

3 a Write a detailed note on construction safety   6M
   b Explain the need of total quality control with an example   6M

OR

4 The yield stress of a random sample of 25 pieces of steel was measured,
    yielding a mean of 52,800 psi. and an estimated standard deviation of
    s = 4,600 psi.
    a.What is the probability that the population mean is less than 50,000 psi?
    b. What is the estimated fraction of pieces with yield strength less than
    50,000 psi?   12M

UNIT-III

5 A project consists of 8 activities A, B, C, D, E, F, G and H with their times   12M
    of completion
    as follows:

Activates	A	B	C	D	E	F	G	H
Durations (weeks)	2	4	2	4	6	4	5	4

The precedence relationships are as follows: A & B can be performed in
parallel C & D cannot start until A is complete
E cannot start until half the work of activities C is complete
F can start only after activity D is complete G succeeds C
H is the last activity, which should succeed E (a) Draw the bar chart
(b) What is the total time of completion of the project?

OR

6 Distinguish the following:
   1. Bar chart and Mile stone chart
   2. CPM and PERT   12M

UNIT-IV

7 Write a detailed note on various modes of material transportation. 12M

OR

8 Use simplex method to solve the following problem: Maximize $Z=2x_1+5x_2$
Subject to $x_1+x_2 \leq 24$,
$3x_1+x_2 \leq 21$,
$x_1+x_2 \leq 9$,
$x_1, x_2 \geq 0$ 12M

UNIT-V

9 a What is a project budget? Show a typical project budget. 6M
  b With a suitable example how activity cost control is forecasted. 6M

OR

10 Present a typical project budget for a design office. 12M

*** END ***