

**B.TECH SEM – VI (2007 COURSE) (CIVIL ENGG.) :**

**WINTER - 2017**

**SUBJECT : PROJECT MANAGEMENT**

Day : **Friday**  
Date : **24/11/2017**

Time : **10.00 AM TO 01.00 PM**  
Max. Marks : 80

**W-2017-2503**

**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) Use of non programmable **CALCULATOR** is allowed.
- 5) Figures to the right indicate **FULL** marks.
- 6) Assume suitable data if necessary.

**SECTION – I**

- Q.1** a) Explain Project Life Cycle. [05]  
b) Explain updating of networks with suitable example. [05]  
c) What are the objectives of material management? [04]
- Q.2** a) Enlist different types of organizations and explain functions of each member in the PWD organization. [08]  
b) Explain project appraisal using benefit cost ratio. [05]
- Q.3** Draw a network find out critical path duration of the project, EST, EFT, LST, LFT and total float from given data: [13]

Activity	1 – 2	1 – 4	1 – 5	2 – 3	4 – 6	5 – 6	4 – 7	3 – 8	7 – 8	6 – 9	8 – 9
Duration (weeks)	3	2	2	4	7	4	4	2	5	6	3

- Q.4** a) Explain ABC analysis with suitable example. [07]  
b) Discuss lead time, safety stock and stock out. [06]

**SECTION – II**

- Q.5** a) What is master budget? Give the procedure of master budget. [05]  
b) What are the advantages and limitations of LPP? [05]  
c) Give the applications of TQM in construction. [04]
- Q.6** a) What are the different funding methods? [07]  
b) What is break even analysis? [06]
- Q.7** a) Solve the following LPP problem by simplex method: [10]  
Maximize  $z = 3x_1 + 2x_2 - x_3$   
Subject to  $10x_1 + 2x_2 + x_3 \leq 20$   
 $3x_2 + 5x_3 \leq 10$   
 $3x_1, x_2 \geq 0$   
b) Enlist assumption in LPP. [03]
- Q.8** a) What is six sigma concepts? What are its applications in Civil Engineering? [07]  
b) What is the necessity of MIS in project management? Give suitable examples. [06]

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