Total No. of Questions :12]

SEAT No. :

P2384

[Total No. of Pages :4

[5153] - 7

T.E. (Civil)

PROJECT MANAGEMENT & ENGINEERING ECONOMICS

(2008 Pattern) (Semester - II)

Time : 3 Hours] *[Max. Marks :100*

Instructions to the candidates:

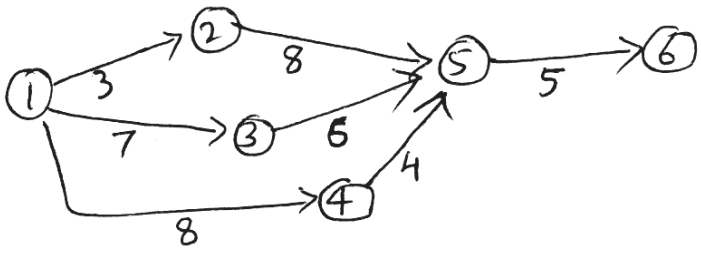
1) ***Answers to two sections should be written in separate answer books.***
2) ***Answer any three questions from each section.***
3) ***Neat diagrams must be drawn wherever necessary.***
4) ***Figures to the right side indicate full marks.***
5) ***Assume suitable data, if necessary.***

SECTION-I

Q1) a) What are the functions of management? Explain any one. **[5]**

b) Define Dummy activity with the help of suitable example. **[5]**

c) Find out EST, LST, EFT, LFT and total project duration also highlight critical path of the network diag. given below. **[8]**



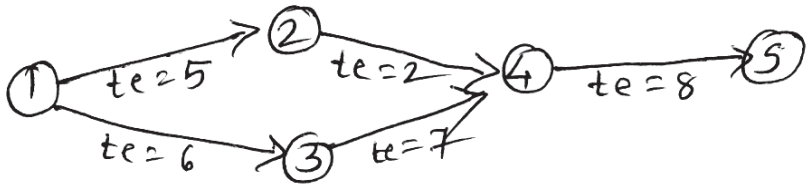
OR

Q2) a) Differentiate between AOA and AON networking methods. **[5]**

b) Define Gantt bar chart. Enlist its advantages and disadvantages. **[5]**

P.T.O.

c) Define optimistic, most probable and pessimistic time and find out total expected duration for the given network. **[8]**



Q3) a) What is the time cost relationship of an activity? Explain with sketch. **[4]**

b) Enlist step by step procedure of network crashing and findout cost slope of given activities. **[12]**

Activity	Normal time (Weeks)	Normal cost (Rs.)	Crash time (Weeks)	Crash cost (Rs.)
1-2	4	1,000	3	2,000
1-3	6	600	4	800
1-4	7	1,500	5	3,000
2-4	8	800	4	1,200
3-4	2	600	1	700
4-5	3	700	2	900

OR

Q4) a) What do you understand by crashing of network diag. **[4]**

b) Explain the methods of man power planning. **[4]**

c) Explain the importance of resource management for any project. **[4]**

d) Define cost slope with the help of suitable example. **[4]**

Q5) a) What are the functions of store keeper? **[4]**

b) Define Economic order quantity and derive expression for it. **[4]**

c) Define inventory and explain the costs associated with inventory problem. **[8]**

OR

Q6) a) Explain importance of break even analysis with help of sketch. **[4]**

b) List out step by step procedure to conduct ABC analysis. **[4]**

c) Seggregate the items as per their annal usage & draw ABC curve for the following data: **[8]**

Sr. No.	Item	Annual Usage (Rs.)
1	Steel	10,00,000
2	Cement	8,00,000
3	Sand	4,00,000
4	Oil	1,00,000
5	Water	50,000
6	Grease	30,000

SECTION-II

Q7) a) Write down safety precautions taken while working at high levels. **[4]**

b) Draw site layout of construction of multistoried building site. **[6]**

c) Explain importance of site layout in construction work. **[6]**

OR

Q8) a) Write a different PPE used on Tunnel construction site. **[4]**

b) Define IFR, ISR and injuri index with help of example. **[6]**

c) Draw site layout for construction of bridge over river. **[6]**

Q9) a) Explain demand and supply curve with suitable sketch. **[6]**

b) What do you understand by law of marginal diminishing utility? **[6]**

c) Explain importance of economics in construction. **[6]**

OR

Q10)a) What are the factors affecting on demand and supply? **[6]**

b) Define economics and discuss its applications in civil engineering. **[6]**

c) Explain law of substitution with suitable example. **[6]**

Q11)Write a short note on (any four): **[16]**

a) Capital & its type.

b) Annuity & its type.

c) IRR method.

d) NPV method.

e) Project appraisals.

OR

Q12)Write a short note on (any four): **[16]**

a) Present worth annuity.

b) Pay back period.

c) Cost benefit ratio.

d) ARR method.

e) Time value of money.

EEE