[5353] - 107

T.E. (Civil) (Semester - II) End Semester
PROJECT MANAGEMENT AND ENGINEERING ECONOMICS
(2012 Pattern) (301008)

Time :2.5 hours]

[Max. Marks :70

Instructions to the candidates:

Answer Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8, Q.9or Q.10

Q1) a) Explain any five principles of scientific management. **[5]**

b) Define delegation of Authority. What are its advantages? **[5]**

OR

Q2) a) What are the domain areas of Project management? **[5]**

b) Find out expected project duration of the net work diag. given below. What are the chances of completing project in 21 weeks? Mark critical path. **[5]**
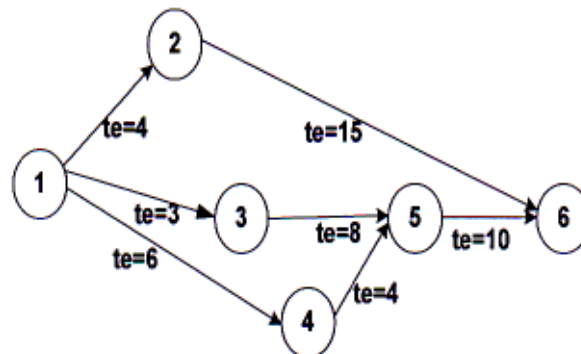
Q3) a) Draw the network diag., find Project duration and mark critical path By using following data **[6]**

i) Activity A &B are starting activities, requires 9 and 6 days to complete resp.

ii) Activity C follows activity B, activity C takes 2 days to complete.

iii) Activity D succeeds activity C and A, activity D take 5 days to complete

iv) Activity D is terminal activity

b) What are the methods of planning and scheduling? Explain any one. **[4]**

P.T.O.

Q4) a) List out step by step procedure of network compression. **[4]**

b) Find out the cost of project before crashing? What will be the change in cost of project by crashing it to minimum time? Consider indirect cost is Rs.l00/-day **[6]**

Activity	NT (days)	CT (days)	NC (Rs.)	CC (Rs.)
10-20	6	2	1000	1200
10-30	8	5	1500	1800
10-50	13	10	2000	2450
20-30	4	3	500	550
20-40	10	8	1600	2000
30-50	7	4	1200	1500

Q5) a) Explain the following **[8]**

i) Annuities and their types

ii) Law of diminishing marginal utility

b) Discus importance of economics in construction industry **[4]**

c) What do you understand by Law of substitution? **[4]**

OR

Q6) a) Write a short note on: **[8]**

i) Demand curve and factors affecting on it

ii) Supply curve and factors affecting on it

b) Define Goods, Wants, assets, liability with the help of example. **[4]**

c) Ms.Madhuri invests Rs. 100000/- in a bank at nominal interest rate 12% for 7 years. The compounding is Monthly. Find future amount she will get after 7 yrs. **[4]**

Q7) a) What are the objectives of material management and functions of purchase dept.? **[6]**

b) Define inventory and explain any one technique of controlling inventory.**[6]**

c) Define IFR, ISR and injury index with formulas **[6]**

OR

Q8) a) What do you know about the indent? Explain process of material issue and return of site you visited. **[6]**

b) What points should you consider while making safety programme of construction site? **[4]**

c) "Sakalp groceryshoppee" carries the following items .Segregate the items based on their annual usage and plot ABC curve. **[8]**

Sr. No.	Item	Annual Consumption	Cost in Rs. per unit
1	Sugar	150 bags	4000/-
2	Wheat	400 quintal	2000/-
3	*Moog dal*	3000 kg	60/-
4	*Tur dal*	4500 kg	100/-
5	Oil sunflower	3000 lit.	90/-
6	Chocolates	3000 pkts.	50/-
7	Soap	10,000 nos.	10/-

Q9) a) What are the different types of appraisals required to undertake any Project? Explain any one in detail. **[6]**

b) Explain break even analysis with help of figure showing breakeven point, break even sales, angle of incidence and margin of safety. **[6]**

c) Write a short note on any one **[4]**
   i) Payback period
   ii) Role of PMC

OR

*Q10)*Write a short note on any four **[16]**
   a) IRR method
   b) BC ratio method
   c) Detailed project report (DPR)
   d) NPV method
   e) Pre tendering and post tendering

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