Total No. of Questions : 12]

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### T.E. (Civil)

# **PROJECT MANAGEMENT & ENGINEERING ECONOMICS** (2012 Pattern) (Semester - II)

*Time : 2<sup>1</sup>/<sub>2</sub> Hours]* 

Instructions to the candidates:

- Answer Q1 or Q2, Q3 or Q4, Q5 or Q6, Q7 or Q8, Q9 or Q10, Q11 or Q12. 1)
- 2) Neat diagrams must be drawn wherever necessary.
- Figures to the right side indicate full marks. 3)
- Assume Suitable data if necessary. **4**)

Q1) Discuss in detail importance of project management in construction industry. [6]

OR

- Q2) Explain in detail Evolution of scientific management. [6]
- Q3) Draw AOA Network and Calculate total Project Duration. Show critical path. Calculate EST, EFT, LST, LFT [8]

Activity	Duration (Days)	Activity	Duration(Days)
1-2	4	4-7	Dummy
2-3	5	5-10	10
2-4	7	6-8	6
2-5	4	7-8	7
3-10	15	8-9	12
4-6	7	9-10	10

[Max. Marks :70

SEAT No. :

- *Q4*) Write short note on:
  - a) importance of planning and network techniques in civil engineering works.
  - b) Bar chart & its limitation.
- Q5) Explain the direct & indirect cost of an activity with example. [6]

#### OR

- Q6) Explain Resource leveling and Resource smoothening by giving suitable examples.[6]
- Q7) a) Give two definition of Economic quoted by different Economists.Explain the importance of Economics in construction industry. [6]
  - b) Explain demand & supply with suitable example. [6]
  - c) Define capital. Explain fixed and working capital. [6]

#### OR

<b>Q8)</b> a)	What is Market Equilibrium. Explain in short Equilibrium Equilibrium Quantity with an example?	Price and [6]	
b)	Explain "Time value of money" with an example.	[6]	
c)	Write short note on:		
	i) Annuity		
	ii) Elasticity		
<b>Q9</b> ) a)	What is ABC analysis? Write in details about the same giving examples		

[6]

- b) Write down safety programme for road project. [6]
  - c) Write short note on : Duties of store keeper. [4]

#### OR

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*Q10*)a) Following table shows annual expenditure of the material used in a construction project. Classify them in A,B,C classes and plot the ABC Curve.

Sr.No	Item	Cost in Rs
1	Cement	1,80,000
2	Sand	35,000
3	Steel	1,49,000
4	Aggregates	90,000
5	Nail	3,200
6	Water	2,500
7	Containers	1,200

- b) Bring out the importance of material management in construction industry. [6]
- c) Write short note on: Personal Protective Equipment
- Q11)a) What do you mean by project appraisal? Explain social & Environmental type of appraisal [8]
  - b) Write short note on:
    - i) Cash flow
    - ii) IRR method

#### OR

Q12)a) A company wishes to invest in a new project. It has two alternatives A & B. Following data is available. Which project will the company select based on NPV and IRR [8]

Particulars	Project A	Project B		
Initial Investment	10,50,000	12,75,000		
Cash Inflows in Rs				
Year 1	5,50,000	7,50,000		
2	7,00,000	5,00,000		
Interest Rate	10%	10%		

- b) Write short note on :
  - i) Detailed project report.
  - ii) Role of project management consultant.

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[8]

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