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SEAT No. :

P1432

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TE/Insem/APR-102

T.E. (Civil)

PROJECT MANAGEMENT AND ENGINEERING ECONOMICS

(2015 Pattern) (Semester - II)

Time : 1 Hour] *[Max. Marks : 30*

Instructions to the candidates :

1) ***Attempt Q1 or Q2, Q3 or Q4, Q5 or Q6.***
2) ***Neat diagram must be drawn wherever necessary.***
3) ***Figures to the right indicate full marks.***
4) ***Assume Suitable data, if necessary and state it clearly.***

Unit - I

Q1) a) Explain importance of Project Management. Enlist any four reasons due to which project may get fail. **[3+2]**

b) Who is known as the father of principle of management? Explain any four principles led by him. **[1+4]**

OR

Q2) a) Define organisational structure and list out characteristics of good organisational structure. **[1+3]**

b) Write a note on (any two) : **[2×3]**

i) Project life cycle

ii) PMBOK

iii) Authority and Responsibility

P.T.O.

Unit - II

Q3) a) Write true or false. **[4]**

i) There can be multiple critical paths in project network.

ii) Dummy Activity Consume Resources.

iii) The critical path is the longest path in a project network.

iv) Dummy activities are used in AON network.

b) Following data is for small construction project. Draw network diagram. Calculate project duration and mark critical path by using CPM method. **[2+4]**

Activity	Duration in Days
1-2	3
2-3	2
2-4	5
2-5	7
3-5	3
4-5	4
5-6	2

OR

Q4) a) Define three time estimates used in PERT Analysis. **[3+2]**

A certain project may require 5 weeks to complete when all conditions are favourable, it may take 10 weeks by considering unfavourable conditions but by the experience it will suppose to complete within 7 weeks. What would be the expected project duration.

b) A project takes 30 days along critical path and has a variance of 16 days. What is the probability of completing the project in **[5]**

i) 30 days

ii) 34 days

iii) 28 days

Following are the probabilities for respective Z factor

1) 84.1% for Z = 1

2) 30.8% for Z = –0.5

Unit - III

Q5) a) What is inventory control? Explain step by step procedure to conduct ABC Analysis. **[1+3]**

b) Segregate the items as per their annual usage and plot ABC curve. **[4+2]**

SR. No	Item	Annual usage in Rs.
1	Cement	1,50,000
2	Sand	80,000
3	Wash Basin	44,000
4	Steel	1,15,000
5	Aggregate	90,000
6	Paint	50,000

OR

Q6) a) List out any four characteristics of good site layout? Draw the layout of construction site you visited, what are the deficiencies observed compared to ideal site layout? **[2+2+2]**

b) Monthly requirement of a sand for a firm 'GIP constructions' is 300 brass. The cost of one brass sand is Rs. 3000. Ordering cost of Rs. 210 per order and annual inventory carrying cost is 22% of average inventory find EOQ and no. of orders to be placed. **[3+1]**