

Total No. of Questions : 6]

SEAT No. :

**P504**

[Total No. of Pages : 3

**APR - 18/TE/Insem. - 102**

**T.E. (Civil)**

**PROJECT MANAGEMENT & ENGINEERING ECONOMICS**

**(2015 Pattern) (Semester - II)**

*Time : 1 Hour]*

*[Max. Marks : 30*

*Instructions to the candidates:*

- 1) Answer Q1 or Q2, Q3 or Q4, Q5 or Q6.
- 2) Neat diagrams must be drawn whenever necessary.
- 3) Figures to the right indicate full marks.
- 4) Assume suitable data, if necessary.

**Q1)** Attempt the following :

- a) What are the objectives and importance of Project management? [4]
- b) Write a short note on : [6]
  - i) Functions of Management.
  - ii) Project categories.

OR

**Q2)** Attempt the following :

- a) What do you know about PMI and PMP? [4]
- b) Write a short note on : [6]
  - i) Project life cycle.
  - ii) Importance of well-defined organization structure.

**Q3)** Attempt the following :

- a) Define different time estimates used in PERT analysis. [4]

**P.T.O.**

b) A certain project takes 60 days along the critical path and has variance of 16 days. Compute scheduled completion time for the project with following probabilities. [6]

- i) 34.5% for  $Z = -0.4$ .
- ii) 97.7% for  $Z = +2.0$ .
- iii) 54% for  $Z = +0.1$ .
- iv) 50% for  $Z = 0$ .

OR

Q4) Attempt the following :

- a) Define Dummy activity and explain its necessity with the help of site related example. [4]
- b) Draw the project network for the data as below. Find project duration and mark critical path by CPM method : [6]

Activity	A	B	C	D	E
Immediate preceding Act.	None	None	A, B	A	C, D
Duration (Weeks)	5	2	10	12	5

Q5) Attempt the following :

- a) What is inventory? What are the functions of material manager? [4]
- b) Segregate the items as per their annual usage and plot ABC curve. [6]

S.N.	Item	Annual Usage (Rs.)
1	Cement	1,80,000
2	Sand	49,000
3	Wash Basin	66,000
4	Steel	1,95,000
5	Aggregate (12 mm)	1,40,000
6	Aggregate (19 mm)	1,20,000
7	Nails	3,200
8	Oil	2,800
9	Paint	2,500
10	Grease	1,800

OR

**Q6)** Attempt the following :

- a) What are the causes of accidents on construction sites? What safety precaution should we take to reduce ISR and IFR? [5]
- b) Annual requirement of a cement for a firm 'AADI Constructions' is 4000 bags. The cost of bag of cement is Rs. 300. Ordering cost of Rs. 110 per order and annual inventory carrying cost is 20% of avg. inventory. Find EOQ and No. of orders to be placed. [5]

