Total No. of Questions : 12]

SEAT No. :

P2019

[Total No. of Pages : 4

[4858]-1010

T.E. (Civil)

PROJECT MANAGEMENT AND ENGINEERING ECONOMICS

(2012 Pattern) (Semester - II)

Time : 2½ Hours] *[Max. Marks : 70*

Instructions to the candidates:

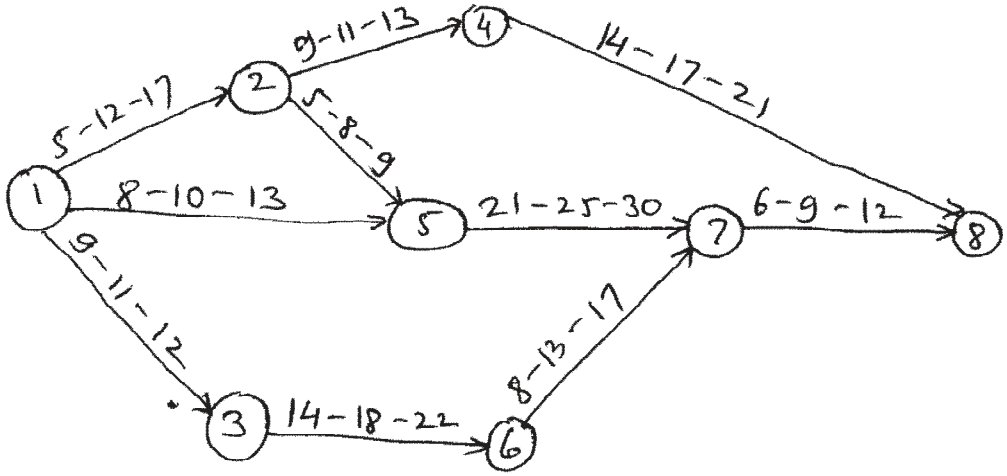
1) ***Answer Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8, Q.9 or Q.10, Q.11 or Q.12***
2) ***Neat diagrams must be drawn wherever required.***
3) ***Figures to the right indicate full marks.***
4) ***Assume suitable data, if necessary.***

Q1) Write a note on different project categories and what are the causes of project failure. **[6]**

OR

Q2) Explain matrix type of organisation and write down merits & demerits of matrix organisation. **[6]**

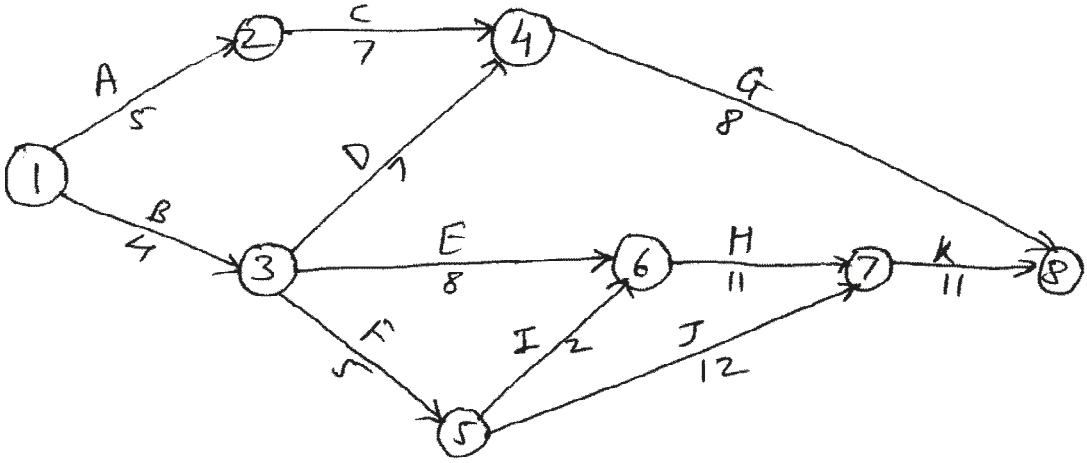
Q3) Following network diagram shows different activity. Find out total estimated time, Standard Deviation & Variance. Also draw critical path. **[8]**



OR

P.T.O.

Q4) Find out EST, EFT, LST, LFT, TF, FF, IDF & IF for following network diagram. Also draw critical path. **[8]**



Q5) Enlist different methods of EVA. Explain any one method in detail. **[6]**

OR

Q6) What is meant by Resource Smoothing. Write down steps for Resource Smoothing. Explain with example. **[6]**

Q7) a) Explain law of Diminishing Marginal utility with example. **[4]**

b) Write down different types of "Elasticity". What are the different factors to be consider for determining the price Elasticity of Demand. **[6]**

c) A financial institution introduces a plan to pay a sum of Rs. 15 lacs after 10 years at the rate of 18% compounded annually. Find annual equivalent amount that person should invest at the end of every year for the next 10 years to receive 15 lacs after 10 years from the institute. **[6]**

OR

Q8) a) Explain the concept of Debit Capital & Equity Capital with example. **[4]**

b) Give definition of following : **[6]**

i) Cost
ii) Price
iii) Value
iv) Goods
v) Wants
vi) Annuity

c) Write down short notes on : **[6]**

i) Money
ii) Working capital
iii) Fixed capital

Q9) a) If you are Safety engineer on your site, then write down how can you implement safety program on your site. Write all steps. **[6]**

b) Draw organisation of Purchase Department & what are the reasons for centralisation of Purchase Department. **[6]**

c) Yearly requirement of cement by a large firm is 300 bags. The cost of a bag of cement is Rs. 300/- lead time is one month & ordering cost per order is Rs. 200/-. Assume Annual carrying cost for inventory is 20% of Avg. Inventory management. Find EOQ & Total Inventory cost. **[6]**

OR

Q10) a) Explain different models of Inventory with figure. **[6]**

b) Perform ABC Analysis for following data : **[8]**

Sl.No.	Item	Annual Expenditure
1	Cement	4,90,000
2	Tiles	90,000
3	Bricks	95,000
4	Sand	2,60,000
5	Steel	1,20,000
6	Oil	2,000
7	Timber	30,000
8	Nails	3,000
9	Dry distamper	15,000

c) Explain any "ERP" software used in construction company. **[4]**

Q11) a) Explain "DPR" with suitable example. **[4]**

b) What is mean by "Project Fesibility Report"? Explain the important of Project Feasibility Report. **[6]**

c) The following are the details of project A & B. Suggest which one is to be accepted by using **[6]**

i) NPV

ii) BCR [i = 8%]

Year	Project "A"	Project "B"
0	4,00,000	4,50,000
1	1,20,000	1,40,000
2	1,25,000	1,45,000
3	78,000	76,000
4	80,000	65,000
5	75,000	60,000
6	–	90,000

OR

Q12) a) Write down role of "PMC". **[4]**

b) Write down Short Note on : **[6]**

i) Pay back period

ii) Break even Analysis.

c) A project cost is Rs. 1,00,000. It's estimated life is 6 years with an avg. Annual cash flow of Rs. 40,000. Calculate IRR for the same. **[6]**