SP - 129

Total No. of Pages : 3

Seat No.	

T.Y.B.Tech. (Civil Engineering) (Semester - VI) (CBCS)
Examination, November - 2023
ENGINEERING MANAGEMENT
Sub. Code : 81516

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Day and Date : Wednesday, 22 - 11 - 2023 **Total Marks : 70**

Time : 2.30 p.m. to 5.00 p.m.

Instructions :
1) **All questions are compulsory.**
2) **Figures to the right indicate full marks.**
3) **Assume suitable data if necessary and state them clearly.**
4) **Answer shall be supported by adequate sketches.**

SECTION - I

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Q1) Solve the followings. **[11]**

a) What are the functions of management? Explain in brief controlling function. **[6]**

b) Define organization and explain the types of organization in detail. **[5]**

Q2) Solve the followings. **[12]**

a) Draw the network, determine critical path, and find out project duration, total float and free float by using the data. **[7]**

Activity	1-2	2-3	2-4	3-4	3-5	4-6	5-6
Duration	14	13	16	15	17	19	13

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b) Explain time estimates in CPM **[5]**

OR

Explain in detail BAR Chart with neat sketch

P.T.O.

Q3) Solve the followings. **[12]**

a) Durations of activities of a project are given below. Draw PERT network, mark expected critical path and calculate expected project duration. Also calculate standard deviation of the project. **[7]**

Activity	Duration (days)		
	To	Tm	Tp
1-2	6	9	18
2-3	3	7	17
2-4	4	10	16
2-5	2	6	16
3-5	5	10	21
4-5	6	11	22
5-6	4	7	16

b) Explain precedence Network. **[5]**

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SECTION - II

Q4) Solve the followings. **[12]**

a) Define resource management and explain the objectives of resource management. **[6]**

b) A construction company requires 1800 tons of steel every year. It costs Rs. 35000 per ton. It requires Rs. 150 to place order once. If inventory carrying costs is 12 % of an average inventory investment. Determine EOQ. **[6]**

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Q5) Solve the followings. **[12]**

a) With suitable example explain the term time value of money **[6]**

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b) Suggest which equipment should be purchased? If rate of interest is 11 % per year. Use (EUAC) method. **[6]**

	Equipment 'A'	Equipment B'
Initial cost (Rs.)	25000	35000
Annual O & M cost (Rs.)	9000	7000
Salvage value (Rs.)	2000	3500
Service life (Yrs)	5	5

Q6) Attempt any Two. **[11]**

a) Explain the safely measures to be taken on construction site.

b) With a neat flow chart describe the procedure of work study.

c) Draw a site layout for bridge project.

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