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P.E.S. College of Engineering, Mandya - 571 401
(An Autonomous Institution affiliated to VTU, Belgaum)
Seventh Semester, B.E. - Civil Engineering
Semester End Examination; Dec. - 2015
Construction Engineering Management and Entrepreneurship

Time: 3 hrs   *Max. Marks: 100*

Note: i) *Answer any* **FIVE** *full questions, selecting at least* **TWO** *full questions from each part.*
    ii) *Draw neat sketches whenever required.*

PART - A

1 a.	With a neat flow diagram explain decision making process in engineering economics.	8
b.	Find the compound interest of Rs.5000/- at 6 percent for 4, 8 and 12 years and compare the results. Does doubling the time double the amount of interest earned?	6
c.	A reputed company has its existing product base (flush doors) decides to launch a new product prices at Rs. 6,500/- per unit. If the fixed cost is Rs. 8, 20, 000/- per unit and variable cost per unit is Rs. 2,400/-. Determine;	6

    i) The B.E.P.   ii) The contribution

    iii) The volume needed to generate a profit of Rs. 10,25,000/-

2 a.	Explain the functions of material management.	5
b.	Explain the three basic elements of quality.	5
c.	With a neat sketch explain the value engineering job plan.	10
3 a.	Define ; i) Dummy ii) Dual role element.	4
b.	A project is composed of seven activities whose time estimates are listed below.	8

Activities	Expected Duration		
i - j	t_o	t_m	t_p
1 - 2	1	1	7
1 - 3	1	4	7
1 - 4	2	2	8
2 - 5	1	1	1
3 - 5	2	5	14
4 - 6	2	5	8
5 - 6	3	6	15

    i)   Draw the project network and determine the critical path

    ii)   Determine the variance and standard deviation of the critical path.

c. A construction project consists of the following seven activities with their expected times as given below. If the scheduled completion time is equal to their earliest expected time TE for the end event. Calculate the slack time for each event and identify the critical path.

Activity	Duration	Activity	Duration
0 - 1	3	1 - 4	10
1 - 3	16	3 - 4	5
1 - 2	6	4 - 5	3
2 - 3	8		

8

4 a. What are the factors affecting the cost of owning and operating the construction equipment? Explain.

10

b. With neat diagram explain the operating procedure of the Batching plant for concrete production.

10

PART - B

5 a. Define valuation and what are the purposes of valuation? Explain.

10

b. Workout the valuation of a Cinema Theatre with the following data:

i) Cost of land Rs. 1,20,000/-

ii) Gross income 7,50.000/-

iii) To run the cinema including staff salary, electric charges etc. is 30 percent of gross income

iv) Repair and maintenance of machinery at 5 percent of their capital cost which is Rs. 9,50,000/-

10

v) Sinking fund for machinery whose life is estimated as 25 years at 4 percent after allowing 10 percent scrap value

vi) Insurance premium is Rs.10, 000/- per annum. Assume year purchase for 60 years at 8 percent and redemption of capital at 4 percent, annual repair of Cinema Theatre at 2 percent of gross income.

6 a. Explain the characteristics of entrepreneur.

8

b. Distinguish between Entrepreneur and manager.

4

c. Explain the role of Entrepreneur in economic development.

8

7 a. Which are the institutions to assist small scale industries in state and Central Government level?

8

b. Write short notes on :

i) KIADB   ii) ICICI

12

8 a. Briefly explain the different factors to be considered while selecting a project.

5

b. Explain the guidelines laid by planning commission for the preparation of a project report.

10

c. Explain project appraisal.

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