BE Sem VIII (C Scheme R-2019) "Mechanical" May' 23

17/5/2023

Time: 3-hour

Marks: 80

N.B.: (1) Question No 1 is Compulsory.
(2) Attempt any three questions out of the remaining five.
(3) All questions carry equal marks.
(4) Assume suitable data, if required and state it clearly.
(5) Notations carry usual meaning.

Q1. Answer the following (Any FOUR.)   [20M]

a) What are the contents of project charter? who prepares and authorizes the project charter?

b) Compare the top-down budgeting and bottom-up budgeting.

c) What is Goldratt's critical chain method?

d) Explain the significance of IRR method in project selection.

e) Briefly describe the purchasing cycle.

f) Explain the risk breakdown structure.

Q2. (a) A consulting project has an actual cost of Rs. 35000, Scheduled cost Rs. 27000, and   [5M]
completed work is Rs. 31000. Find the Scheduled and Cost Variance. Also find SPI and CPI.

(b) What is a contract? Explain different types of contracts in brief.   [5M]

(c) Consider a project having following cash flow stream. The cost of capital (r) for the firm is
10% . Calculate NPV of project and decide whether to accept or reject the project.   [10M]

Year	0	1	2	3	4	5
CASH Flow in Rs.	10,00,000	2,00,000	2,00,000	3,00,000	3,00,000	3,50,000

Q3. (a) What is project life cycle? how does cost of change, risk and influence of stakeholders are
affected with Project time during the life cycle of project?   [10M]

Q3. (b) Explain probability and impact matrix. What are the risk response strategies foe negative risks
(threats) and positive risks(opportunities).   [10M]

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Q4.   (a) A small project is composed of 8 activities, whose time estimates are listed below.

Activity	Predecessor	to	tm	tp
A		3	6	9
B		5	7	8
C	A	6	9	12
D	A	6	12	15
E	B	9	12	18
F	B	12	18	24
G	C, D, E	6	9	12
H	C	3	6	9

i)   Draw the project network diagram. Find the critical path and expected project duration.

ii)   If the due date is 30 days. What is the probability that the project will be completed within the due date?   [10M]

iii) Find the probability of completing project between 26 to 31 days.   [5M]

Q4.   (b) What are the non-numeric models of project selection? Expalin in brief.   [5M]

Q4.   (c) Explain importance of ethics in projects.   [10M]

Q5.   (a) How communication is planned and managed in project management ?

Q5.   (b) What is life cycle of a project audit ? what are responsibilities of project auditor ?   [10M]
       What is essential for successful project audit?

Q6.   (a) What are four stages of team development and growth? What are the barriers to team effectiveness?   [10M]

Q6.   (b) List and briefly describe the ways project may be terminated. What are some non-technical reasons for project termination?   [10M]