BE comp (PM) sem VIII R19 -cscheme 21-05-2025

Time: 3-hour   Max. 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 the usual meaning.

Q. 1   Answer any **FOUR.**   20

 a. Explain the necessity of project management in achieving organizational goals.

 b. What is Goldratt's critical chain method?

 c. What are the numeric and non-numeric models of project selection?

 d. What is concurrent engineering?

 e. Explain various Reasons for project termination.

 f. Define scope creep. What are two ways to control it in a project?

Q.2   a. Describe the typical and atypical project life cycles, highlighting the stages in the   10
stage-gate process.

 b. Assume that ABC Inc. is considering two projects, namely Project X and Project   10
Y, and wants to calculate the NPV for each project. Both project X and project Y
are four-year projects, and the cash flows of both projects for four years are given
below:

Year	Project A Cash Flows in Rs.	Project B Cash Flows in Rs.
1	5000	1000
2	4000	3000
3	3000	4000
4	1000	6750

The firm's cost of capital is 10% for each project, and the initial investment
amount is Rs.10,000. Calculate the NPV of each project and determine in which
project the firm should invest.

Q.3   a. What are the advantages and risks of outsourcing in project management?   05

 b. List the key components of a project communication plan.   05

 c. Describe the methods of project cost estimation and differentiate between top-   10
down and bottom-up budgeting approaches.

Q.4   a. What are the different types of contracts? Draw the graph showing risk exposure   10
to the buyer and seller in various contract types.

QP Code   Prog code

10

b. A small project consisting of ten activities has the following characteristics:

Activity	Preceding Activity	Time Estimate weeks		
		Optimistic	Most likely	Pessimestic
A	–	4	5	12
B	–	1	1.5	5
C	A	2	3	4
D	A	3	4	11
E	A	2	3	4
F	C	1.5	2	2.5
G	D	1.5	3	4.5
H	B,E	2.5	3.5	7.5
I	H	1.5	2	2.5
J	F,G,I	1	2	3

Determine the critical path.

Q.5   a. Explain the Probability and impact matrix. What are the risk response strategies for negative risks(threats) and positive risks(opportunities).   **10**

b. Explain the four stages of team development and growth.   **10**

Q.6   a. Discuss the various reasons for project termination and explain different types of project termination.   **10**

b. Explain the importance of ethics in projects.   **05**

c. Explain the Triple constraint of project management in brief.   **05**