

Name:

Enrolment No:



**UNIVERSITY OF PETROLEUM AND ENERGY STUDIES**

**End Term Examination, December 2020**

**Course: Fundamentals of Project Planning & Mgt.**

**Semester: V**

**Program: B. Tech.**

**Time: 03 Hours**

**Course code: DPBM0303**

**Max. Marks: 100**

**SECTION A( 30 Marks)**

**1. Each Question carries 5 Marks**

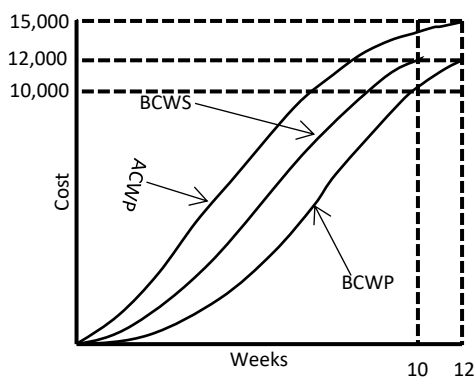
**2. Instruction: Complete the statement / Select the correct answer(s)**

		<b>CO</b>
Q 1	Invest Rs. 2,000 now, receive 3 yearly payments of Rs.100 each, plus Rs. 2,500 in the 3rd year. Use 10% Interest Rate, find the NPV  a. 97 b. 127 c. 143 d. None	<b>CO 2</b>
Q 2	A task has been completed 30% against scheduled 50%. The budgeted cost of task is Rs 5000. Amount actually spent is Rs 2000. CPI is a. 0.6 b. 1.0 c. 1.25 d. 0.75	<b>CO 2</b>
Q 3	An activity in project network has been assigned to, tm and tp as 4, 6 and 14 weeks respectively. The expected time for the activity is _____	<b>CO 1</b>
Q 4	When time duration of an activity is deterministic we apply _____, and when it is probabilistic we apply ----- in project execution analysis.	<b>CO 1</b>
Q 5	If BCWP is less than BCWS  a. The project is cost overrun b. The project is cost underrun c. Project is behind schedule d. Project is ahead of schedule	<b>CO 1</b>
Q 6	In project cost monitoring, the s-curve depicts the relation between:  a. Schedule completion and time.	<b>CO 2</b>

	b. Cumulative value and time. c. Schedule completion and value resources. resources and time	
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**SECTION B ( 50 Marks)**

- 1. Each question carries 10 marks**  
**2. Instruction: Write short / brief notes**

Q 7	Explain various phases of project life cycle.	<b>CO 1</b>
Q8	Discuss discounting and non-discounting criteria of capital budgeting	<b>CO 1</b>
Q9	Discuss Work Breakdown Structure process used in Project Planning of a Residential Building	<b>CO 4</b>
Q10	<p>Consider the above set of S curves for a project. Determine CPI, SPI, and critical ratio at week 10 and at project completion</p> 	<b>CO 3</b>
Q 11	A road and a bridge is constructed to connect a group of villages to national highway. Earlier the villagers have to cross the river by boat. Discuss the social cost benefit analysis in undertaking this project. Make reasonable assumptions.	<b>CO 4</b>

**Section C ( 20 Marks)**

- 1. Each Question carries 20 Marks.**  
**2. Instruction: Attempt only one question.**

Q 12

**QUESTION A:** Sharon Lowe, vice president for marketing for the Electronic Toys Company, is about to begin a project to design an advertising campaign for a new line of toys. She wants the project completed within 55 days in time to launch the advertising campaign at the beginning of the Christmas season. Sharon has identified the six activities (labeled A, B, . . . , F) needed to execute this project. The table below gives the precedence rule of each activity and the PERT three-time estimates. Find the probability of completing the project within 54 days. (Area under normal distribution are for z value less than 1, =84.13%; for z value less than 2, =97.72%; for z value less than 3, =99.67%).

Activity	Preceding Activity	Optimistic Time Estimate	Most Likely Time Estimate	Pessimistic Time Estimate
A	-----	11 days	12 days	13 days
B	-----	15 days	21 days	39 days
C	A	12 days	15 days	18 days
D	B	18 days	27 days	36 days
E	C	12 days	18 days	24 days
F	E	2 days	5 days	14 days

**OR**

**QUESTION B:** A project requires an initial capital investment of Rs. 2, 00, 00,000. The capital requirement is met through a financial institution, which charges 11% annual interest rate. The projected annual cash inflows during the project life are:

Year	1	2	3	4	5
Cash Inflow	30,00,000	50,00,000	80,00,000	50,00,000	25,00,000

There is an available opportunity of using intermediate cash inflows into another project which has an IRR of 15%. The salvage value at the end of project life is Rs. 25, 00,000 that will be available at the end of sixth year only.

Calculate the Modified NPV (MNPV) for the project. Hence, comment on the financial feasibility of the project.

CO 3