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Semester ≈ 8th.

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Q#

$$EV - PV \text{ To date } \times RP$$

$$= 100000$$

$$\text{Cost Variance} = CV = EV - AC$$

$$\text{Schedule Variance} = SV = EV - PV$$

$$CPI = EV/AC$$

$$SPI = EV/PV$$

$$(1) \quad EV = 10000 \times \frac{100}{100} = 100000$$

$$(2) \quad EV = 100000 \times \frac{100}{100} = 100000$$

$$(3) \quad EV = 100000 \times \frac{90}{100} = 90000$$

$$(4) \quad EV = 10000 \times \frac{80}{100} = 8000$$

$$(5) \quad EV = 10000 \times \frac{75}{100} = 7500$$

* (2) Cost Variance:

(1) $CV = 100000 - 120000 = -20000$
 $CV = 100000 - 110000 = -10000$
 $CV = 100000 - 80000 = 20000$
 $CV = 100000 - 125000 = -25000$
 $CV = 100000 - 75000 = 25000$
 $CV = 100000 - 0 = 100000$
 $CV = 100000 - 0 = 100000$
 $CV = 100000 - 0 = 100000$

* (3) Schedule Value:

$$SV = EV - PV$$

(1) = $100000 - 100000 = 0$

(2) = $100000 - 100000 = 0$

(3) = $90000 - 100000 = -10000$

(4) = $80000 - 100000 = -20000$

$$(5) = 75000 - 100000 = -250000$$

$$(6) = 0 - 100000 = -100000$$

$$(7) = 0 - 100000 = -100000$$

$$(8) = 0 - 100000 = -100000$$

$$(9) = 0 - 100000 = -100000$$

$$(10) = 0 - 100000 = -100000$$

* (4) Cost performance Index :-

$$CPI = EV/AC$$

$$(1) = 100000/120000 = 0.83$$

$$(2) = 100000/110000 = 0.90$$

$$(3) = 90000/80000 = 1.725$$

$$(4) = 80000/125000 = 0.64$$

$$(5) = 75000/75000 = 1$$

$$(6) = \frac{0}{0} = 0$$

$$(7) = \frac{0}{0} = 0$$

$$(8) = \frac{0}{0} = 0$$

$$(9) = \frac{0}{0} = 0$$

* ⁽⁵⁾ Schedule performance :

$$(1) \text{ SPI} = \frac{10000}{10000} = 1$$

$$(2) \text{ SPI} = \frac{100000}{100000} = 1$$

$$(3) \text{ SPI} = \frac{90000}{100000} = 0.9$$

$$(4) \text{ SPI} = \frac{80000}{100000} = 0.8$$

$$(5) \text{ SPI} = \frac{75000}{100000} = 0.75$$

$$(6) \text{ SPI} = \frac{0}{100000} = 0$$

$$(7) \text{ SPI} = \frac{0}{100000} = 0$$

$$(8) \text{ SPI} = \frac{0}{100000} = 0$$

$$(9) \text{ SPI} = \frac{0}{100000} = 0$$

$$(10) \text{ SPI} = \frac{0}{100000} = 0$$

* (b) Estimate completion:

$$= BAC / CDI$$

$$= 100000 / 4.495 = 2224694$$

(7)

$$= 2224694 / 4.45$$

$$= 49993.123 / 55$$

$$= 908$$

51011

Being a project manager, how would you identify the stake holders by power / interest matrix?

The following rules should be consider.

- * Stake holder in group A: Need only minimum efforts on monitoring
- * stake holder in group B: should be kept inform as they may be able to influence more powerful stake holders.
- * Stake holder in group C: Are powerful but level of interest is low. Generally expected be passive, but may move in group D on an issues of particular interest.

* Stake holder in group D:- Are both powerful & interested. Their co-operation is a key important for new strategies.

⇒ Power/interest matrix:

		Level interest	
		Low	High
Power	Low	A minimal effort	B keep informed
	High	C keep satisfied	D key players

X

For a project of residential houses what are the different stages to be considered in the risk management checklist?

Ans:

✓ Check list for Risk management:•

Stage 1 Initiation ::

- * Assemble Risk Management resources.
- * Appoint the team leader and ensure a breadth of skills within the team.
- * Assign Risk Management responsibilities appropriate to task.

Stage 2 Proposal Familiarization.

- * Specify objectives and criteria.
- * Familiarizes the team with the proposal assemble documentation and define the key objective.
- * Determine assessment criteria for proposal.

* Assess the proposal in relation to the Agency objective and strategies.

" Stage 3 Risk Analysis ::

* identify Risks

(prepare a comprehensive schedule of risks for each element)

(Describe each risk and list the main assumptions)

* Assess Risk likelihoods and consequences

(Assemble data on risk and their consequences)

(Assess risk likelihoods)

Identify Significant Risks:

- * Rank risks to reflect impacts and likelihood
- * Where applicable, estimate risk factor.
- * Discard / accept minor risks.

Identify major risks for detail risk action planning.

* Stage 4 Risk Response Planning

* Identify Feasible Reasons:

* For each moderate and major risk, identify the feasible response.

[risk prevention
impact mitigation
risk acceptance]

* Describe each feasible response and list main assumption:

Select the best response:

* evaluate the benefits and cost for each response.

* select the preferred response

* Develop management measures and action schedules:

= specify risk management measures for moderate risks

= Develop risk action schedules for major risks.

* Action Required

* Resources

* Responsibilities

* Timing

Stage 5 Reporting

- * For designated proposal, produce the Risk Management plan.
- * For other projects, collate and summarize risk action schedules and measures.

Stage 6 Risk Management Implementation

implement measures and action strategies.

monitor the implementation.

[Assign Responsibilities]
[Timing]

undertake periodic review and performance evaluation.

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Given Data:

Number of communication channels = 6

Additional stake holder = 2

Required Data:

Identify the number of communication channel after increasing the scope of work.

Solution:

We know that the number of communication channel = $\frac{n(n-1)}{2}$

The no of people involved in six communication channel

$$6 = \frac{n(n-1)}{2}$$

P.T.O.

$$12 = n(n-1) = n^2 - n$$

$$n^2 - n - 12 = 0$$

$$n^2 - 4n + 3n - 12 = 0$$

$$n(n-4) + 3(n-4) = 0$$

$$(n-4)(n+3) = 0$$

$$\begin{array}{l|l} (n-4) = 0 & n+3 = 0 \\ n = 4 & n = -3 \end{array}$$

So we know the number of
the people involved = 4

As there are additional stake
holder so that total number
of people are;

$$n = 4 + 2$$

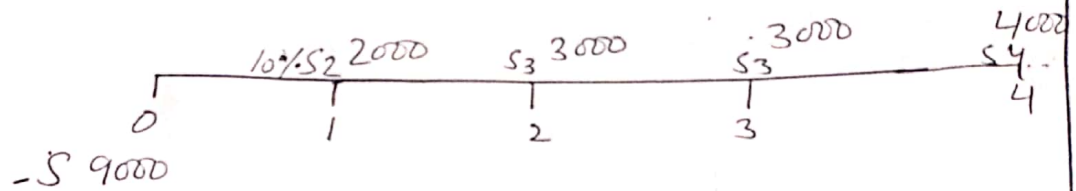
$$n = 6$$

the required communication
channel $\frac{6(6-1)}{2}$

$$\frac{6(6-1)}{2} = 3(5)$$

New communication channel is = 15 Ans

10/13



Sol:

$$NPV = -C_0 + \frac{C_1}{1+Y} + \frac{C_2}{(1+Y)^2} + \dots + \frac{C_T}{(1+Y)^T}$$

$$PV_0 = -C_0$$

$$PV_0 = -9000$$

$$PV_1 = \frac{C_1}{1+Y} = \left(\frac{2000}{1 + \frac{10}{100}} \right)$$

$$PV_1 = 1818.81$$

$$PV_2 = \frac{C_2}{(1+Y)^2} = \frac{3000}{\left(1 + \frac{10}{100}\right)^2}$$

$$PV_2 = 2479.34$$

$$PV_3 = \frac{C_3}{(1+Y)^3} = \frac{3000}{\left(1 + \frac{10}{100}\right)^3}$$

$$PV_3 = 2253.94$$

-C₀ = initial investment

C = cash flow

Y = Discount Rate

T = Time

C₁ = 2000

C₂ = 3000

C₃ = 3000

C₄ = 4000

$$PV_4 = \frac{C_4}{(1+r)^4} = \frac{4000}{\left(1 + \frac{10}{100}\right)^4}$$

$$PV_4 = 2732.05$$

So,

$$NPV = -C_0 + \frac{C_1}{1+r} + \frac{C_2}{(1+r)^2} + \frac{C_3}{(1+r)^3} + \frac{C_4}{(1+r)^4}$$

$$= -9000 + 1818.18 + 2479.34 + 2253.94 + 2732.05$$

$$NPV = \$ 283.51$$