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Management

Semester :- 8<sup>th</sup> (Spring)

Exam = Final

Q No:- 01

Given data :-

Number of communication channels = 6

Additional stake holder = 2

Required data :-

Identify the number of communication channels after increasing the scope of work = ?

Sol:-

As we know that ;

$$\text{Number of communication channel} = \frac{n(n-1)}{2}$$

The number of people involved is 8 in (b)

communication channel =,

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

(2)

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

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

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

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

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

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

So the number of people involved = 4

As; There are additional stake holder

So total number of people are;

$$n = 4 + 2$$

$$n = 6$$

Now, The required communication

$$\begin{aligned} \text{channel} &= \frac{3 \times (6-1)}{2} \\ &= 3(5) \end{aligned}$$

New communication channel = **15** Ans

Question No: 2 <sup>③</sup>

Given data: -

For a project of 10 package, for each planned value, Actual cost and percentage of completion is given;

Required data ;

calculate ;

- Earned Value
- Cost Variance
- Schedule Variance
- Cost Performance Index
- Schedule Performance Index

# Solution:-

work package	B/CWS (\$)	A/CWP (\$)	% Progress	B/CWP (\$)	Cost Variance	Schedule Variance	Cost Performance Index	Schedule Performance Index
1	100,000	120,000	100	100,000	-20,000	0	0.83	1
2	100,000	110,000	100	100,000	-10,000	0	0.91	1
3	100,000	80,000	90	90,000	10,000	-10,000	1.13	0.9
4	100,000	125,000	80	80,000	-45,000	-25,000	0.64	0.8
5	100,000	75,000	50	50,000	-25,000	-45,000	0.67	0.5
6	100,000	0	0	0	0	-100,000	0	0
7	100,000	0	0	0	0	-100,000	0	0
8	100,000	0	0	0	0	-100,000	0	0
9	100,000	0	0	0	0	-100,000	0	0
10	100,000	0	0	0	0	-100,000	0	0

(K) (5)  
Comment ::

On the basis of CPI ::

According to Thumb Rules;

- Work package 1, 2, 4 and 5 are over budget because CPI value is less than 100%.
- Work package 3 is under budget because CPI value is greater than 100%.

On the basis of SPI:

According to Thumb Rules;

- Work package 1 and 2 are on the schedule

Work package 3, 4 and 5 are behind schedule.

Q, No. 3

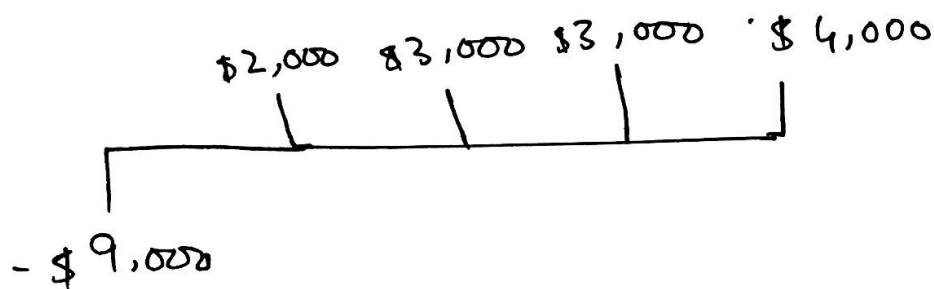
Answer:-

Given data :-

$\Rightarrow$  Initial Investment = 9000 \$

$\Rightarrow$  Discount rate =  $r = 10\%$ .

$\rightarrow$  The expected cash flow for next four years is



$\Rightarrow$  Required data :-

$\Rightarrow$  Net present value = NPV = ?

$\Rightarrow$  Comment on the result.

$\Rightarrow$  Solution :-

As we know by formula

$$\Rightarrow NPV = -C_0 + \frac{C_1}{1+r} + \frac{C_2}{(1+r)^2} + \dots + \frac{C_T}{(1+r)^T} \rightarrow \textcircled{A}$$

(7)

$$\text{As; } PV_0 = -C_0$$

$$PV_0 = -9000 \$$$

Here;  $C$  = Cash flow

$T$  = Time

$$C_1 = 2,000 \$$$

$$C_2 = 3,000 \$$$

$$C_3 = 3,000 \$$$

$$C_4 = 4,000 \$$$

Now putting value

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

$$\Rightarrow PV_1 = \boxed{1818.18 \$}$$

$$PV_2 = \frac{C_2}{(1+r)^2} = \frac{3,000}{\left(1 + \frac{10}{100}\right)^2}$$

$$\Rightarrow PV_2 = \boxed{2479.34 \$}$$

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

$$\Rightarrow PV_3 = \boxed{2253.94}$$



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

$$PV_4 = 2732.05$$

Now putting value in (A) we get

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

$$\Rightarrow NPV = 283.51 \$ \quad \text{Answer}$$

Comment:.

A position NPV means the combined PV of all cash inflows exceeds the PV of cash outflows.

In our example the NPV of \$283.51 suggests that the combined PV of all cash inflows exceeds the PV of ~~all~~ cash ~~inflows~~ outflow by ~~28~~ 283.51 \$.

Q4:-

Answers.

		Level of Interest-	
		Low	High
Power	Low	A minimal effort	B keep informed
	HIGH	C keep sta- satisfied	D key Players

Power/Interest Matrix:-

⇒ stake holder in group A:-

Need only minimum effort on monitoring.

⇒ stake holder in group B:

Should be kept informed as they may be able to influence more powerful stake holder.

② (10)

⇒ Stakeholder in group C:

They are powerful,

but level of interest is low. Generally expected to be passive, but may move into group D on an issue of particular interest.

⇒ Stakeholders in group D:-

They are both powerful

and interested. Their co-operation

is of key importance for new strategies.

Question No:- 5

The different stages to be considered in the Risk management check list for a project of residential house are:-

## Stage 1 (Initiation)

→ Assemble Risk management resources.  
Appoint the team leader and ensure a breadth of skills/experience within the team.

Assign Risk Management Responsibility appropriate to task.

## Stage 2 (Proposal Familiarisation)

- Specific objection and criteria.
- Familiarise the team within the proposal assemble documentation and define the key objectives.
- Assess the proposal in relation to the Agency's objectives and strategies.

- Determine assessment criteria for proposal
- Define key elements (target 20-50 elements, items or activities) to structure risk analysis.

### Stage 3 (Risk Analysis)

- Identify risks
  - Prepare a comprehensive schedule of risk's for each element.
- Assess risk likelihoods and consequences.
- Identify significant risks.
- Identify major risks for detailed risk action planning.

### Stage 4 (Risk Response planning)

- Identify feasible responses
  - For each moderate and major risk, identify the feasible responses.
- Describe each feasible response and list main assumption.

(13)  
→ select other best response.

→ Develop management measures and action schedule.

→ Specify Risk management measures for moderate risks.

## 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 Implementations)

→ Implement measures and action strategies

→ Monitor the implementation

- Assign responsibilities

- Timing

→ Undertake periodic review and

→ performance evaluation.