

Q No. 1

Number communication channel = 6
additional stake holder = 2

Required data:

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

Solution:

As we know that;
the number of people involved in six communication channel \Rightarrow

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

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

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

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

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

$$(n-4) = 0$$

$$n = 4$$

$$n+3 = 0$$

$$n = -3$$

The number of people involved = 4

So there are additional stake holder So the total number of people are:

$$n = 4 + 2$$

$$n = 6$$

Now the required communication

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

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

$$\text{New communication channel} = \boxed{15} \text{ Ans}$$

Q No. 2.

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

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

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

$$(4) \quad = 100000 \times \frac{80}{100} = 80000$$

$$(5) \quad = 100000 \times \frac{75}{100} = 75000$$

Cost variance.

$$CV = 100000 - 120000 = -20000$$

$$= 100000 - 110000 = -10000$$

$$= 100000 - 80000 = 20000$$

$$= 100000 - 125000 = -25000$$

$$= 100000 - 0 = 100000$$

Schedule value

$$SV = EV - PV$$

$$(1) = 100000 - 100000 = 0$$

$$(2) = 100000 - 100000 = 0$$

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

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

$$(5) = 25000 - 100000 = -75000$$

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

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

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

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

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

Cost performance Index

$$CPI = E_v / A_c$$

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

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

$$(3) = 900000 / 800000 = 1.125$$

$$(4) = 800000 / 1250000 = 0.64$$

$$(5) = 750000 / 750000 = 1$$

$$(6) = 0/0 = 0$$

$$(7) = 0/0 = 0$$

$$(8) = 0/0 = 0$$

$$(9) = 0/0 = 0$$

$$(10) = 0/0 = 0$$

Schedule performance

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

$$(2) \quad SPI = \frac{10000}{10000} = 1$$

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

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

$$(5) \quad SPI = \frac{70000}{100000} = 0.75$$

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

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

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

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

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

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Estimate Completion

$$= \text{BAC} / \text{CPI}$$

$$= 100000 / 4.495 = 222469.4$$

$$(7) = 222469.4 / 4.45$$

$$= 49993.123 / 55$$

$$\boxed{= 908} \quad \text{ANS}$$

Q No. 3

Sol

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

$$P_v = -C_0$$

$$P_{v_0} = -9000$$

$$P_{v_1} = \frac{C_1}{1+r} = \left(\frac{2000}{1 + \frac{10}{100}} \right)$$

$$P_{v_1} = \underline{1818.18}$$

$$P_{v_2} = \frac{C_2}{(1+r)^2} = \frac{3000}{\left(1 + \frac{10}{100}\right)^2}$$

$$P_{v_2} = \underline{2479.34}$$

$$P_{v_3} = \frac{C_3}{(1+r)^3} = \frac{3000}{\left(1 + \frac{10}{100}\right)^3}$$

$$\underline{P_{v_3} = 2253.94}$$

$$P_{v_4} = \frac{C_4}{(1+r)^4} = \frac{4000}{\left(1 + \frac{10}{100}\right)^4}$$

$$\underline{P_{v_4} = 2732.05}$$

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

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

$$\boxed{NPV = \$283.5}$$

Q No. 4

ANS

Being a project manager the following power / interest matrix

the following role should be considered.

⇒ Stake holders in group "A": need only

minimum effort or monitoring

⇒ Stake holders 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

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

⇒ Stake holder in groupe "D" Are both

powerfull & interested this
Co-operation is of key
importance for new strategies.

Q) Nov 5

Check for Risk management

Stage 1

Initiation

- ⇒ Assemble risk management resource
- ⇒ appoint the team leader and ensure a breadth of skill/experience within the team
- ⇒ Assign risk management responsibilities to task.

Stage 2

proposal familiarization.

- ⇒ Specify objective and criteria
- ⇒ familiarise the team with the proposal, assemble documentation and define the key objectives and strategies.

- ⇒ Determine assessment criteria for proposal
- ⇒ Define key element to structure risk analysis.

Stage 3

Risk analysis

- * Identify risk
 - ⇒ prepare a comprehensive schedule of risk for each element
 - ⇒ Describe each risk and list the main assumption.
- * Assess risk likelihood and consequences:
 - ⇒ Assemble data on risk and their consequences
 - ⇒ Assess risk impacts.

* Identify Significant risks

- ⇒ rank risks to reflect impact and likelihood
- ⇒ where applicable estimate risk factor
- ⇒ Discard / accept minor risk
- ⇒ identify moderate risk factors

* Identify major risks for detailed risk action planning

⇒ Checklist for Risk management

stage 4

- * identify feasible response
- * for each and major risk identify feasible response
- * Responding may include:
 - (a) risk prevention
 - mitigation

- (c) Responsibility (who)
- (d) Timing (when?)

⇒ Stage 5

- 1) For designated proposal produce the risk management plan
- 2) For other projects, collate and summarize risk action schedule and measure.

⇒ Stage 6

Risk management Implementation.

- 1) Implement measures and action strategies
- 2) monitor the implementation
 - (a) assign responsibility
 - (b) timing.