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7720

Section B

Construction Management

Final term Assignment

Question No 01?

Answer No 01:-

Given Data:-

Number of Communication channels = 6
Additional staff holders = 2

Required data:-

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

Solution:-

As we know that:

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

The number of people involved in six communication channels =>

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

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

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

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

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

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

$$(n-4) = 0$$

$$n = 4$$

$$n+3 = 0$$

$$n = -3$$

So, the number of people involved = 4

As, there are additional stake holders

So total number of people are

$$n = 4 + 2$$

$$n = 6$$

Now the required communication channel

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

$$= 3(5)$$

New communication channel = 15

Answer.

Question No 02?

Answer No 02:-

Work Page	BCWS Planned Value (PV)	ACWP Actual Cost (AC)	Progress %	BCWP Earned Value (EV)	(CV) EV-AC	CPI EV/AC	SPI EV/PV	SV EV-PV
1	\$ 100,000.00	\$ 120,000.00	100%	\$ 100,000.00	\$ (20,000.00)	0.83	1.00	\$ -
2	"	\$ 110,000.00	100%	\$ 100,000.00	\$ (10,000)	0.91	1.00	\$ -
3	"	\$ 80,000	90%	\$ 90,000	\$ 10,000	1.13	0.90	\$ 10,000
4	"	\$ 125,000	80%	\$ 80,000	\$ (45,000)	0.64	0.80	\$ 20,000
5	"	\$ 75,000	100%	\$ 10,000	\$ (25,000)	0.67	0.50	\$ 20,000
6	"	\$ -	0%	-	-	0.00	0.00	\$ 100,000
7	"	\$ -	0%	-	-	0.00	0.00	\$ 100,000
8	"	\$ -	0%	-	-	0.00	0.00	"
9	"	\$ -	0%	-	-	0.00	0.00	"
10	"	\$ -	0%	-	-	0.00	0.00	"
BAC						0.00	0.00	"

Question no 3?

Answer no 3:-

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

$$P_{V0} = -C_0$$

$$P_{V0} = -9000$$

$$P_{V1} = \frac{C_1}{1+r} = \left(\frac{2000}{1 + \frac{10}{100}} \right)$$

$$P_{V1} = 1818.18$$

- C_0 = initial investment

C = cash flow

r = Discount rate

T = time

$C_1 = 2000$

$C_2 = 3000$

$C_3 = 3000$

$C_4 = 4000$

$$P_{V2} = \frac{C_2}{(1+r)^2} = \frac{3000}{\left(1 + \frac{10}{100}\right)^2}$$

$$P_{V2} = 2479.34$$

$$P_{V3} = \frac{C_3}{(1+r)^3} = \frac{3000}{\left(1 + \frac{10}{100}\right)^3}$$

$$P_{V3} = 2253.94$$

$$P_{V4} = \frac{C_4}{(1+r)^4}$$

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

$$P_{V4} = 2732.05$$

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

$$= -9000 + 1818.18 + 2479.34 + 2253.94 + 2732.01$$

$$NPV = \$ 283.51$$

Question no 4?

Answer no 04:-

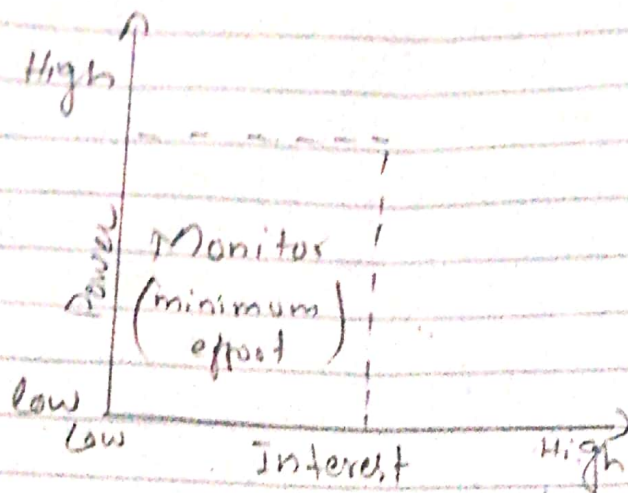
Power / Interest Matrix:-

- > The power / interest matrix is a simple tool that helps to categorize project stakeholders with increasing power and interest in project.
- > This matrix helps to focus on the key stakeholders who can make or break the project. In turn, this power / interest matrix helps us in stakeholder prioritization.

Layout of Matrix:-

The power interest matrix contains four quadrants. Each quadrant gives an indication of the level of stakeholder management that we will have to employ and may also influence the type of communication style. The four quadrants of power

interest matrix are shown below:



High Power - High interest:-

These stakeholders are decision makers and have biggest impact on project success and hence we must closely manage their expectations.

High power Low interest.

These stakeholders need to be kept in loop, these stakeholders need to be kept satisfied because they yield power. This type of stakeholder should be dealt cautiously because they may use their power in a not desired way in the project.

Low power high interest:-

These people should be kept adequately informed and must talk to them to ensure that no major issues are arising. These people can often be very helpful with detail of project.

Low power Low interest.

Monitor these stakeholders but we should not bore them with excessive communication.

Question no 5?

Answer no 5:-

Check list for Risk Management:-

Stage 1 Initiation:-

- > Assemble risk management resources.
- > Appoint team leader and ensure a breadth of skills within team.
- > Assign risk management responsibilities.

Stage 2 Proposal Familiarization.

- > Specify objectives & criteria.
- > Familiarize team with proposal, assemble documentation.
- > Assess the proposal in relation to the Agency objective & strategies.
- > Determine assessment criteria for proposal.

Stage 3 Risk Analysis.

- > Identify risks.
- > Assess risk likelihoods and consequences.
- > Identify significant risks.
- > Identify major risks for detailed risk action plan.

Stage 4 Risk response Planning:-

- > Identify Feasible responses.
- > Describe each feasible response.
- > select best sequence.
- > Develop management measures.