FINAL TERM ASSIGNMENT

RISK AND DISASTER MANAGEMENT IN CONSTRUCTION (CE- 604)

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ANSWER 1

RISK LOG/REGISTER.

The purpose of risk register in project management is to record the details of all risks that have been identified along with their analysis and plans for how those risks will be treated. Basically it is a log that identified risks along with their severity and the actions and steps to be taken to mitigate the risk

- A construction project risk register is a register which summaries all of the brainstormed or hypothesized risks associated with a project.

- A risk register template is a type of tool used in project management and risk management creating a project risks register helps you identify any potential risks in your project.

- A risk register is a tool for documenting risks and actions to manage each risk. The risk register is essential to the successful management of risk. As risk are identified they are logged on the register and action are taken to respond to the risk.

- The responses are documented on the risk register and the register should regularly reviewed to monitor progress. Ideally the risk register should be reviewed in every project meeting. It should certainly be review at the end of each phase of the project cycle.

- Risk manager or project manager who then logs the risk and identifies actions that can be taken to mitigate the risk.

RISK REGISTER

ID	Date Raised	Risk Description	Likelihood of Risk occuring	Impact of the Risk occur	Severity	Owner	Mitigation Action
1	22 Jun 2020	Project Purpose and Need is not Well Defined	Medium	High	High	Project Sponser	Complete a Business Cg not already provided and Ensure Purpose is well defined on Project charter
2	23 Jun 2020	Project Design and deliverable defintion is incomplete	Low	High	High	Project Sponser	Design workshops with input grom subject matter Expert
3	24 Jun 2020	Project Schedule is not clearly Defined	Low	Medium	Medium	Project Sponsor	Holds Scheduling workshops with the Project Team So that they understood the Plan

ANSWER 2

COST BENEFIT ANALYSIS.

Cost benefit analysis some time called benefit cost analysis is a systematic approach to estimating the strength and weakness of alternatives used to determine options which provide the best approach to achieving benefits while preserving savings.

A cost benefit analysis is a process by which organizations can analyze decisions systems or projects or determine a value of intangibles. The model is built by identifying the benefits of an action as well as the associated cost and subtracting the costs from benefits.

The cost benefits analysis is effective for a project to analyze and evaluate the cost of a project and the benefits gained from proceeding with that project. A cost benefit analysis should consider both quantitative and qualitative factors to make a base case for the investment. It should also compare similar projects to determine the potential, benefits risks and likelihood of success.

A cost benefit analysis should conducted before allocating fund to a project. A thorough analysis of a project should identify all potential benefits and the probability of achieving goals compared with the all-in associated costs. The outcome of the analysis will help decision makers determine if the project is feasible and if it should proceed or if the fund are better spent elsewhere.

There are two main purpose in cost benefit analysis

- To determine if the project is sound justifiable and feasible by figuring out if its benefits outweigh costs.
- To offer a baseline for comparing projects by determining which projects benefits are greater than its costs.

COST BENEFITS ANALYSIS EXAMPLE

Project 1

Total cost =8000pkr

Earning total benefits=12000pkr

Cost benefit ratio=8000/12000 i.e. 1.5

Project 2
Total cost =11000pkr
Earning total benefits=20000pkr
Cost benefit ratio=11000/20000 i.e. 1.81

So project 2 is feasible having high cost benefit ratio

ANSWER 3 (a)

NORMAL PROBABILITY DISTRIBUTION

The normal probability distribution is a probability function that describes how the values of a variable are distributed. It is a symmetric distribution where most of the observation cluster around the central peak and the probabilities for values further away from the mean taper off equally in both directions.

EXAMPLE.

Height of the population is the example of normal distribution most of the people in a specific population are of average height. The number of people taller and shorter than the average height people is almost equal and a very small number of people are either extremely short.

The normal distribution is the most important probability distribution in statistics because it fits many natural phenomena. For example height, blood pressure measurement error and IQ scores follow the normal distribution. It is also called Gaussian distribution and bell curve.

ANSWER 3 (b)

GIVEN DATA

POPULATION MEAN U= 60000PKR

STANDARD DEVIATION Q=15000PKR

REQUIRED DATA=PROBABILTY OF EMPLOYEES EARNING LESS THAN 45000PKR

SOLUTION.

BY USING THE FORMULA Z=X-U/Q

BY PUTTING VALUES Z=45000-60000/15000

Z=-1

THEREFORE, P(X<45000)

= P (Z<-1) FROM TABLE 2

= O.1587 OR 15.87%