B.M.S. College of Engineering, Bengaluru-560019

Autonomous Institute Affiliated to VTU

September / October 2023 Supplementary Examinations

Programme: B.E.   Semester: V
Branch: Computer Science And Engineering   Duration: 3 hrs.
Course Code: 20CS5HSSPM   Max Marks: 100
Course: Software Project Management and Finance   Date: 30.09.2023

Instructions: 1. Answer any FIVE full questions, choosing one full question from each unit.
2. Missing data, if any, may suitably assumed.

UNIT - I

1 a) Describe the characteristics of Project and list any four roles of a project Manager.   **07**

b) A Company is planning to purchase a machine that will improve productivity by 20%, resulting in a cost savings of $25,000 per year. The machine cost $35,000, and has a potential life of 3 years. The company demands that any investment should payoff significantly better than stock market returns, insisting on a discount rate of 22%.   **07**
   i.   Compute net present value (NPV) of this investment project.
   ii.   Should the company invest in the machines?

c) Justify why "Project is a temporary endeavour". And also define project management.   **06**

OR

2 a) Discuss the components of Project Management Plan.   **05**

b) Compute the Payback Periods of Projects E and F. If the cut-off period is three years, which project do you accept?   **07**

Projects	E	F
Cost	$40,000	$250,000
Cash Flow Year One	$10,000	$40,000
Cash Flow Year Two	$10,000	$120,000
Cash Flow Year Three	$10,000	$200,000
Cash Flow Year Four	$10,000	$200,000
Cash Flow year Five	$10,000	$200,000
Cash Flow Year Six	$10,000	$200,000

c) Define Programs, Portfolio, Mission, Goals and Objective with an example for each.   **08**

UNIT - II

3 a) Describe project plan, and briefly discuss the components of project plan. **06**

b) An Employee XYZ is a Project Manager of IT Company. A new project has been assigned to his team for developing a website for a new customer who has started his business for digital marketing. Analyze his situation and discuss how he manages to ensure smooth operation of the project completion. Depict the sequence of hierarchy he will follow for ensuring credibility with the tie-up company and his customer. **07**

c) Develop a Risk plan script for A Children's Park management system. **07**

UNIT - III

4 a) Define Statement of work (SOW). List and explain the contents of SOW. **06**

b) Design a Scope document for redesigning a library website. **06**

c) Construct the Priority Matrix to develop an Utsav Management system, and analyze how the triple constraints are affected with respect to the given system. Justify your answer. **08**

UNIT - IV

5 a) Differentiate between contingencies and management reserves. **06**

b) Define Estimation. Discuss your view on the statement. "The accuracy of the cost estimation process increases as the project proceeds". **06**

c) i) You are implementing a form in the BMSCE website with the following data elements. 25 SE, 15 BE and 5 DE. Calculate the Adjusted Specification Effort (ASE) for a Web form. Also list and explain the classification of data elements of ASE. **08**
ii) Differentiate between macro and micro estimates.

OR

6 a) Discuss different perceptions about cost estimate. **06**

b) The team estimates to develop a new system as follows: **07**
Most likely the prototype will take 3 months. Pessimistically if the things go wrong the estimated development will take 5 months. Optimistically the prototype can be completed in 1 month. Calculate the PERT mean and σ.

c) Assume you are organizing your Father's Birthday Party at your home. You need to order Paper Boat drinks and French Fries (Starters) for 50 guests. The party will be from 6:00 PM to 10:00 PM. Determine the Cost estimation model for the Birthday Party (Paper Boat drinks and French Fries) using Parametric Estimate. **07**
Note: Paper Boat: Rs. 20 each, French Fries: Rs. 50 each.

UNIT - V

7   a)   Justify the statement with examples "A risk is an uncertain event or condition that if it occurs, has a positive or negative effect on the project".   **08**

     b)   Let us say, we are given the task of deciding between Vendor A and Vendor B. Vendor A has a Success Probability of 55% and an Impact of $ 70,000 while there is no impact on Failure. Similarly, Vendor B has a 75% probability of Success and has an impact of $ 55,000 and he too has no impact on Failure. Based on this information, how would you choose the Vendor?   **07**
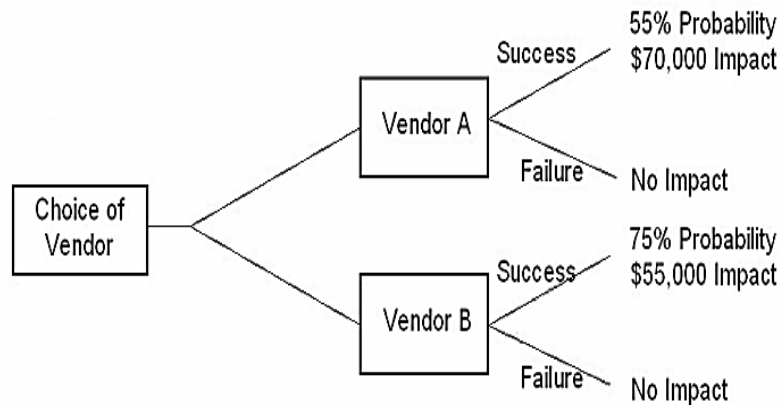
     c)   Consider a scenario where the spare parts manufacturer supplies bike parts to a popular bike manufacturing company. Discuss the process involved in assuring defect free parts to the customers.   **05**

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