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

Autonomous Institute Affiliated to VTU

## August 2024 Supplementary Examinations

**Programme: B.E.**

**Semester: V**

**Branch: Computer Science and Engineering**

**Duration: 3 hrs.**

**Course Code: 22CS5HSSPM**

**Max Marks: 100**

**Course: Software Project Management and Finance**

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

### UNIT - I

1 a) Explain the roles of Project Manager. 5  
 b) A company is planning to purchase a machine that will improve the productivity by 10%. resulting in a cost savings of \$15,000 per year. The machine costs about \$30,000 and has a potential life of 3 years. the company demands that any investment should pay off slightly better than stock market returns, insisting on a discount rate of 20%, should the company invest in machine. 10  
 c) Explain the External environment which should be known by Project manger. 5

### OR

2 a) Explain the Internal environment which should be known by Project manger. 5  
 b) Explain the job of PMO 5  
 c) What are the Payback Periods of Projects E and F? If the cut-off period is three years, which project do you accept? 10

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

### UNIT - II

3 a) Write the vision and scope document for Hotel management system. 8  
 b) You borrow \$10,000 at 14 percent compound annual interest for four years. The loan is repayable in four equal annual installments payable at the end of each year. 5  
 i) What is the annual payment that will completely amortize the loan over

**Important Note:** Completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages. Revealing of identification, appeal to evaluator will be treated as malpractice.

four years?

ii) Of each equal payment, what is the amount of interest? The amount of loan principal?

c) Develop a Risk plan script for online book management system. 7

### **UNIT - III**

4 a) Develop a Project charter for Smart Phone system 10

b) Develop scope content document for smart traffic signaling system 10

### **UNIT - IV**

5 a) Explain about cost politics 10

b) Describe about two types of cost estimates. 4

c) With a neat diagram describe how to Identify Dependencies in a project. 6

### **OR**

6 a) Explain about Parametric Estimate. 8

b) Explain about direct and indirect cost estimates with examples. 7

c) Assume that you are planning to develop a website for an online conference, you analyze the scope and decide that you need 3 login forms for name and addresses, 3 forms for the referee's background and 4 forms to select the papers. Two forms to print out the paper titles when the referee has completed the assignment. As to data entities, we estimate 40 are associated with the referee's name and address, 10 with their qualifications, and 30 with each paper. Calculate the Programming Entities and Total Effort. 5

### **UNIT - V**

7 a) Describe the sources of Risks. 5

b) Write and Analyze Ishikawa diagram for Late Pizza delivery on weekends 10

c) Describe about two steps of Risk Assessment. 5

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