

|        |  |  |  |  |  |  |  |  |
|--------|--|--|--|--|--|--|--|--|
| U.S.N. |  |  |  |  |  |  |  |  |
|--------|--|--|--|--|--|--|--|--|

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

Autonomous Institute Affiliated to VTU

## October 2024 Supplementary Examinations

**Programme: B.E.**

**Branch: Information Science and Engineering**

**Course Code: 22IS6HSSPM**

**Course: Software Project Management and Finance**

**Semester: VI**

**Duration: 3 hrs.**

**Max Marks: 100**

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

| <b>UNIT - I</b>   |    |                                                                                                                                                                                                                 | <i>CO</i>  | <i>PO</i>  | <b>Marks</b> |
|-------------------|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------------|--------------|
| 1                 | a) | Describe any five strategic considerations that can be used to authorize any project with suitable examples for each.                                                                                           | <i>CO1</i> | <i>PO</i>  | <b>05</b>    |
|                   | b) | Provide a Projectized Organizational structure with a suitable diagram for an IT company with departments as Human Resource, Finance, Operations and Marketing                                                  | <i>CO2</i> | <i>PO1</i> | <b>05</b>    |
|                   | c) | Assuming that you are a wedding planner, explain the five different project management phases that you would follow for the upcoming wedding.                                                                   | <i>CO2</i> | <i>PO1</i> | <b>10</b>    |
| <b>UNIT - II</b>  |    |                                                                                                                                                                                                                 |            |            |              |
| 2                 | a) | Assuming that you are a project manager in an automobile manufacturing industry, and you are assigned a project to develop an electric vehicle. Illustrate how would you design a Project Charter for the same. | <i>CO2</i> | <i>PO1</i> | <b>10</b>    |
|                   | b) | Create a work breakdown structure for an aircraft manufacturing company with suitable diagram.                                                                                                                  | <i>CO2</i> | <i>PO1</i> | <b>06</b>    |
|                   | c) | Discuss the various methods of reaching a group decision using the Group decision techniques.                                                                                                                   | <i>CO2</i> | <i>PO1</i> | <b>04</b>    |
| <b>OR</b>         |    |                                                                                                                                                                                                                 |            |            |              |
| 3                 | a) | Explain in detail the Plan Scope Management process.                                                                                                                                                            | <i>CO2</i> | <i>PO1</i> | <b>10</b>    |
|                   | b) | Assuming that you are a project manager in a Software company, and you are assigned a project of developing a software for a client. Illustrate how would you direct and manage the project work for the same.  | <i>CO2</i> | <i>PO1</i> | <b>10</b>    |
| <b>UNIT - III</b> |    |                                                                                                                                                                                                                 |            |            |              |
| 4                 | a) | Illustrate the tools and techniques to control project cost.                                                                                                                                                    | <i>CO3</i> | <i>PO2</i> | <b>05</b>    |

**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.

|   |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |     |      |           |
|---|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------|-----------|
|   | b) | Describe the importance of developing a “Cost Management Plan”.                                                                                                                                                                                                                                                                                                                                                                                                                                                        | CO3 | PO11 | <b>05</b> |
|   | c) | You are managing a project which is into six months of its execution. You are now reviewing the project status and you have ascertained that project is behind schedule. The actual cost of Activity A is ₹ 1,80,000 and that of Activity B is ₹ 80,000. The planned value of these activities are ₹1,50,000 and ₹ 50,000 respectively. The Activity A is 90% complete. However, Activity B is only 75% complete. Calculate the schedule performance index, cost performance index and the project on the review date. | CO3 | PO2  | <b>10</b> |
|   |    | <b>OR</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |     |      |           |
| 5 | a) | Describe the inputs to be considered during the process of determining the budget for a project.                                                                                                                                                                                                                                                                                                                                                                                                                       | CO3 | PO11 | <b>08</b> |
|   | b) | Earned value management (EVM) is a methodology that combines scope, schedule, and resource measurements to assess project performance and progress. It is a commonly used method of performance measurement for projects. In brief illustrate the three dimensions of “Earned Value Management”.                                                                                                                                                                                                                       | CO3 | PO11 | <b>06</b> |
|   | c) | Compute Estimate At Completion (EAC) and Variance At Completion (VAC) if both SPI and CPI influence the project work when given variables are <ul style="list-style-type: none"> <li>• Budget At Completion (BAC) = \$27,000</li> <li>• Earned Value (EV) = \$17,000</li> <li>• Planned Value (PV) = \$18,000</li> <li>• Actual Cost (AC) = \$19,000</li> </ul>                                                                                                                                                        | CO3 | PO2  | <b>06</b> |
|   |    | <b>UNIT - IV</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |     |      |           |
| 6 | a) | Illustrate all the basic quality tools used for managing the projects quality.                                                                                                                                                                                                                                                                                                                                                                                                                                         | CO4 | PO12 | <b>10</b> |
|   | b) | Discuss the “Plan Human Resource Management” process in detail.                                                                                                                                                                                                                                                                                                                                                                                                                                                        | CO4 | PO10 | <b>10</b> |
|   |    | <b>UNIT - V</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |     |      |           |
| 7 | a) | Source selection criteria are often included as a part of the procurement documents. Such criteria are developed and used to rate or score seller proposals, and can be objective or subjective. Discuss any 5 such criteria’s that are commonly used as a part of procurement purchase.                                                                                                                                                                                                                               | CO4 | PO7  | <b>05</b> |
|   | b) | Describe the various inputs to the plan risk management phase.                                                                                                                                                                                                                                                                                                                                                                                                                                                         | CO4 | PO10 | <b>05</b> |
|   | c) | Explain the Plan Procurement Management phase in detail.                                                                                                                                                                                                                                                                                                                                                                                                                                                               | CO4 | PO7  | <b>10</b> |

\*\*\*\*\*