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Seventh Semester B.E. Degree Examination, Feb./Mar. 2022

Project Management

Time: 3 hrs.

Max. Marks: 100

Note : 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. Use of Statistical tables permitted.

Module-1

- 1 a. Define Project. Explain the different Financial Analysis models used for selection of Projects. (10 Marks)
- b. Explain the Project Life Cycle, with a sketch indicating the effort level required at each stage. (10 Marks)

OR

- 2 a. Discuss the different knowledge areas chosen by PMBOK. (10 Marks)
- b. Explain various Projects Selection methods. (10 Marks)

Module-2

- 3 a. Define WBS. Explain the different formats for constructing WBS, with a suitable example. (10 Marks)
- b. With a suitable example, explain the steps involved in defining a Project Scope. (10 Marks)

OR

- 4 a. Define Project Scheduling. What is the purpose of a Project Schedule? Discuss the historical development. (10 Marks)
- b. What is Gantt Chart? Discuss , how it is used in Project Management. (10 Marks)

Module-3

- 5 a. Discuss the Project team composition issued to be considered when selecting team members. (10 Marks)
- b. Explain the ability needed to correctly resource a project by a Project Manager. (06 Marks)
- c. What is Project Budget? Why you need a Project Budget? (04 Marks)

OR

- 6 a. With a flow chart, explain DMAIC process for achieving quality improvement. (10 Marks)
- b. Explain the basic quality tool for efficient Project Management. (10 Marks)

Module-4

- 7 a. What do you mean by Balanced Scorecard approach to Project determination? (10 Marks)
- b. Explain the common reasons for terminating the Project early. (05 Marks)
- c. Briefly explain the Post Project activities of the Project Management. (05 Marks)

OR

- 8 a. Define Supply Chain Management? Explain the four areas involving in Supply Chain Project Management (SCPM). (10 Marks)
- b. What do you mean by Knowledge Management? Define Partnering and explain Strategic Partnering. (10 Marks)

Module-5

- 9 a. Explain the errors which would likely to occur during drawing of network diagrams. (06 Marks)
- b. The table below represent the information related to Project, for which the direct cost is Rs 100 per day.

| Activity | 1-2 | 1-4 | 1-3 | 2-4 | 3-4 | 2-5 | 4-5 |
|--------------------|-----|-----|-----|-----|-----|-----|-----|
| Normal time (days) | 4 | 6 | 2 | 5 | 2 | 6 | 4 |
| Normal cost (Rs) | 120 | 300 | 60 | 300 | 200 | 230 | 200 |
| Crash time (days) | 3 | 4 | 1 | 3 | 2 | 5 | 2 |
| Crash cost (Rs) | 180 | 500 | 120 | 500 | 200 | 350 | 480 |

- i) Draw Network diagram.
- ii) Find Normal duration and Normal cost of the Project.
- iii) Calculate the Optimum duration and Minimum Project Cost.
- iv) If all activities are crashed to the maximum possible extent, what will be the project duration and cost? (14 Marks)

OR

- 10 a. Write a short note on AoA and AoN diagrams. (06 Marks)
- b. The following table shows the jobs of a network along with their estimation in days.

| Job | 1-2 | 1-3 | 1-4 | 2-5 | 3-5 | 4-6 | 5-6 |
|-------|-----|-----|-----|-----|-----|-----|-----|
| t_o | 1 | 1 | 2 | 1 | 2 | 2 | 3 |
| t_m | 1 | 4 | 2 | 1 | 5 | 5 | 6 |
| t_p | 7 | 7 | 8 | 1 | 14 | 8 | 15 |

- i) Draw Network diagram.
- ii) Compute the expected duration and variance of each activity.
- iii) Identity the critical path.
- iv) Calculate the variance and standard deviation.
- v) What is the Probability of Completion of the Project :
- a) 4 days earlier than expected b) Not more than 4 days later than expected. (14 Marks)

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