

Total No. of Questions : 8]

SEAT No. :

P6629

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**B.E. (Information Technology)
SOFTWARE PROJECT MANAGEMENT
(2019 Pattern) (Semester-VII) (414442)**

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) Answer Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8.
- 2) Neat diagrams must be drawn whenever necessary.
- 3) Figures to the right indicate marks.
- 4) Assume suitable data, if necessary.

Q1) a) Explain the difference between the Critical Path Method (CPM) and the Program Evaluation and Review Technique (PERT) Formulate a network model for a simple project using either CPM or PERT, and calculate the early start, early finish, late start, and late finish dates for each activity. **[8]**

b) Explain the objectives of activity planning and discuss the different types of project schedules. Describe the steps involved in sequencing and Scheduling activities. **[10]**

OR

Q2) a) Explain the different risk response strategies and how to evaluate the risk to the schedule. **[8]**

b) Define risk management and explain the different stages of the risk management process. Discuss the different techniques for risk identification and prioritization. **[10]**

Q3) a) Explain the data visualization tools: Kanban boards, project calendars, and earned value charts. What are the two main components of project tracking and control? **[7]**

b) Discuss the different change request types and the change approval process. **[10]**

OR

P.T.O.

- Q4)** a) What are common methods of collecting project data from stakeholder. Explain how to calculate earned value and use it to calculate Schedule Performance Index (SPI) and cost performance index (CPI). [7]
- b) Explain the different SCM tools and how they are used to track and manage changes to software artifacts. [10]

- Q5)** a) How to select a right person for the job? Explain the recruitment process in detail [9]
- b) Discuss the different theories of organizational behaviour and their implications for software project management. Explain how the different factors that influence individual and team behaviour in software projects, such as motivation, personality, and group dynamics, can impact project performance. [9]

OR

- Q6)** a) Apply the Oldham-Hackman Job Characteristics Model to a software development role and discuss how the job design could be improved to increase job satisfaction and motivation. [9]
- b) With relevant examples, differentiate between management and leadership [9]

- Q7)** a) What is Agile Project Management? List two benefits of using Azure DevOps for Agile Project Management [7]
- b) Explain the concept of branching and merging in Azure DevOps and how it is used to support Agile Project Management. [10]

OR

- Q8)** a) What are the different stages of the application lifecycle management (ALM) process? What are the key features of Azure DevOps that support ALM? [7]
- b) Explain how to use Azure Pipelines to implement continuous integration and continuous delivery (CI/CD) in an Agile project. Discuss the different ways to manage work items in Azure Boards. [10]

