

## CE1.4-R4: PROJECT MANAGEMENT

### NOTE:

1. Answer question 1 and any FOUR from questions 2 to 7.
2. Parts of the same question should be answered together and in the same sequence.

Time: 3 Hours

Total Marks: 100

1.
  - a) What is the content of SPMP (Software Project Management Plan) document?
  - b) What are the variations of COCOMO Model? What are the shortcomings of that?
  - c) What are the soft skills required by a software project manager?
  - d) Distinguish between software product and a software process. What is the meaning of software process model? Why is it needed? Name four process models that are used to develop large software systems.
  - e) "Software quality managers are responsible for three kinds of activities". Name and explain them.
  - f) What are the objectives of Project Planning? What is the significance of customer communication and scope in Project Planning?
  - g) Narrate the relationship between people and effort. State the process of building and monitoring schedules for software development projects.

**(7x4)**
  
2.
  - a) Suppose the project has a very tight schedule. Suggest two ways in which productivity could be improved to help bring this project on schedule. Discuss how each of the methods described actually improves productivity.
  - b) What is a Function Point? Compare Function Point with Feature Point techniques. What is the significance of these metrics for a project manager?
  - c) Which are the five primary functions performed by software managers? What are the attributes of a successful software project manager?

**(7+5+6)**
  
3.
  - a) What are the uses of PERT charts and GANTT charts in the overall management of project? How do they assist Project Manager?
  - b) What are the five software configuration management tasks? Define and discuss each of them.
  - c) How is the quality of the product controlled? What are the approaches to SQA (Software Quality Assurance)? Differentiate between Quality and Reliability.

**(6+5+7)**
  
4.
  - a) How is the Project schedule developed? How is the Project cost estimated?
  - b) What are the fundamental tasks that must be included in Software Quality Assurance (SQA) planning?
  - c) Which are the factors that affect the team in an organization? What are the coordination and communication issues between the team members?

**(6+6+6)**

**5.**

- a) Compare the ISO 9000 certification and CMM model. Discuss potentialities and limitations of ISO 9000 and CMM model.
- b) Explain process of identification of Risks that a project is susceptible to. What are the steps the project manager should take to manage these Risks for large software?
- c) What are the major attributes all software products should have for the successful implementation and configuration of a software project?

**(7+7+4)**

**6.**

- a) What are the benefits of outsourcing? What is to be done in subcontracting? Which systems would be ideal for outsourcing?
- b) How would you identify resource requirements for a project? How would you allocate the resources to a project?
- c) Which are the types of people involved in software development? What are the various team organization structures?

**(6+6+6)**

**7.**

- a) How risk analysis and management can be done? Which are the major software risks? How do you assess the risks?
- b) What is the meaning of W5HH Principles in Project Management Concepts?
- c) What is the necessity of configuration management? What are the configuration management activities?

**(6+6+6)**