

B.Tech
(SEM. VII) (ODD SEM), THEORY EXAMINATION 2017-18
SOFTWARE PROJECT MANAGEMENT

Time: 3 Hours**Total Marks: 100**

- Note:** 1. Attempt all Sections. If require any missing data; then choose suitably.
 2. Any special paper specific instruction.

SECTION A

1. **Attempt all questions in brief.** **2 x 10 = 20**

- a. What is scope of project? Explain with an example.
- b. List the various types of project plans. Explain one such plan.
- c. What do you mean by Software project estimation?
- d. Differentiate between verification and validation.
- e. What are the different project organization types?
- f. Write about results of major milestones in a modern process.
- g. What are the activities under software configuration management (SCM)?
- h. Discuss the concept of PERT/CPM schedule along with example.
- i. Explain Waterfall model and its limitations.
- j. How is change control process handled in software project.

SECTION B

2. **Attempt any three of the following:** **10 x 3 = 30**

- a. When does the software activity start and end software life cycle? List some important activities that a software manager performs during software project management.
- b. It has been said that the design cannot be directed by technical expert alone. Do you agree with the statement? Write in detail to support your views. Give various responsibilities of a Project Manager along with structure of personal organization.
- c. **Following the activity list of a software project:**

Activity	Activity Description	Duration (Weeks)	Precedents
A	Hardware Selection	6	
B	Software Design	4	
C	Install Hardware	3	A
D	Code and Test Software	4	B
E	File take-on	3	B
F	Write user manual	10	
G	User Training	3	E,F
H	Install and test system	2	C,D

- d. Explain the Function Point Analysis in detail. Discuss also how Complexity Adjustment Factor (CAF) adjusts the unadjusted value of Function Point (UFP).
- e. What is project scheduling? List and discuss the various project schedule activities. What are the benefits of agile project management?

SECTION C

- 3. Attempt any *one/two* part of the following: **10 x 1 OR 5 x 2 = 10****
 - (a) What do you mean by Project plan? Also discuss types of project plans.
 - (b) What do you mean by Work Breakdown Structure (WBS) in context to software project and product?

- 4. Attempt any *one/two* part of the following: **10 x 1 OR 5 x 2 = 10****
 - (a) Develop and discuss some of the point's specific for identifying the risks during software development. Also give some of the category of Risk that are to be identified.
 - (b) Describe the different types, levels and strategies of testing.

- 5. Attempt any *one/two* part of the following: **10 x 1 OR 5 x 2 = 10****
 - (a) Explain various advantages of Milestone Chart and Gantt Chart.
 - (b) What do you mean by Project Life Cycle and Product Life Cycle?

- 6. Attempt any *one/two* part of the following: **10 x 1 OR 5 x 2 = 10****
 - (a) List out the methods for comparing projects on the basis of their cash flow forecasts.
 - (b) Explain in detail about Cost benefit evaluation techniques and its methods with example.

- 7. Attempt any *one/two* part of the following: **10 x 1 OR 5 x 2 = 10****
 - (a) What are the software development modes in COCOMO? Give formula for effort / schedule estimation in basic COCOMO.
 - (b) Consider a program with an initial of 10 failure/cpu and 100 total failures. Calculate the failure experienced after 10 and 100 cpu hour of execution.