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**B.Tech. DEGREE END SEMESTER EXAMINATIONS, NOVEMBER 2013**

**BRANCH: IT (FULL-TIME)**

**V SEMESTER – REGULATIONS 2008**

**IT9301 SOFTWARE PROJECT MANAGEMENT**

**Time: 3 hrs.**

**Max.Marks:100**

**Answer All Questions**

**Part – A (10X2 = 20 Marks)**

1. List the basic activities covered by software project management.
2. List the steps involved in the analysis of project characteristics.
3. What are the major shortcomings of the SLOC measure?
4. What is the significance of Rayleigh-Norden curve in staff pattern?
5. Describe the significance of forward and backward pass.
6. Highlight the impact of "risk acceptance" and "risk avoidance" in a project.
7. List the different categories of resources in a software project.
8. What is the use of earned value analysis in software projects?
9. List the basic objectives of organizational behaviour.
10. Differentiate project and functional organization structure.

**PART B (5 X 16 = 80 Marks)**

11. (i) Draw an activity network using precedence network conventions for the project specified in table 1. Calculate the duration, critical path, latest start, and earliest finish date for the project. (10)

- (ii) Explain the role of PERT and Monte Carlo simulation in risk management. (6)

**Table1: Activity information**

<b>Activity</b>	<b>Expected Duration</b>	<b>Predecessors</b>
A	5 days	--
B	10 days	A
C	8 days	A
D	1 day	A
E	5 days	B, C
F	10 days	D, E
G	14 days	F
H	3 days	G
I	12 days	F
J	6 days	H, I

12. (a) (i) Compare traditional and modern software project management practices. (8)

(ii) Discuss the issues in the selection of an appropriate project approach. (8)

(OR)

(b) (i) What is project management? List the activities involved in it. (6)

(ii) List the stepwise project planning activities and discuss each activity. (10)

13.

(a) (i) List and explain the different cost-benefit evaluation techniques. (8)

(ii) Identify and illustrate the project/business risk matrix for an e-commerce application. (8)

(OR)

(b) Assume that a project for office automation has to be designed and developed. From the requirements, it is clear that there will be four major modules in the system: data entry, data update, query, and report generation. It is also clear from the requirements that this project will fall in the organic category. The sizes for the different modules are estimated to be as follows.

Data entry – 0.8KLOC, Data update – 0.4 KLOC, Query – 0.9 KLOC, Reports – 1.2 KLOC

From the requirements, the ratings of the different cost driver attributes such as

complexity, experience, and reliability are considered to be High, Low, High (1.05, 1.15, 1.23).

Calculate the effort estimation for this project. Calculate the mean time development and staff required for this project. (16)

14.

(a) (i) What is a resource requirement list. Explain it with an example. (8)

(ii) Discuss the means of accessing the progress of a project. (8)

(OR)

(b)

(i) Explain the mechanisms used for bringing the projects back to the target. (8)

(ii) Discuss the typical terms involved in a software contract. (8)

15.

(a) (i) Explain the process of managing people in a software environment. (16)

(OR)

(b) (i) (i) What are the issues in group performance in a software project. (8)

(ii) Discuss the merits and demerits of dispersed and virtual teams. (8)