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K 3544

M.C.A. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2007.

Fifth Semester

MC 1802 — SOFTWARE PROJECT MANAGEMENT

(Regulation 2005)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What is the difference between ISO 9001 and ISO 9001: 2000?
2. What are the quality aspects to be considered to design a good quality software?
3. What is meant by portfolio?
4. List the goals of a software project.
5. What are the two approaches of determining the total effort for the software?
6. Define Productivity.
7. How activity sequencing is done?
8. What is project quality?
9. List the steps for quality assurance.
10. Why is the CM process needed in addition to the development process?

PART B — (5 × 16 = 80 marks)

11. (a) What is CMM? Explain the CMM framework in detail. (16)

Or

- (b) Explain the product development lifecycle in detail with illustration. (16)

12. (a) Explain the project selection criteria and the work break down structure. (16)

Or

- (b) Explain the process of project planning in detail. (16)

13. (a) Describe the method for the cost estimation and cost budgeting for a project. (16)

Or

- (b) Discuss the various risks in a project is susceptible to. How the risk Management plans are derived and implemented? (6 + 10)

14. (a) Write short notes on :

- (i) Brainstorming (5)
- (ii) Scheduling (5)
- (iii) Human Resource communication in a project. (6)

Or

- (b) (i) Consider the following activities from A to J. (8)

Activity Intermediate Duration
Predecessors (months)

A		1
B	A	4
C	A	2
D	A	2
E	D	3
F	D	3
G	E	2
H	F, G	1
I	C, H	3
J	B	2

Construct a CPM network and determine the critical path.

- (ii) Consider the following data of the project :

(8)

Activity Predecessors Duration (weeks)

		<i>a</i>	<i>m</i>	<i>b</i>
A	—	1	2	3
B	—	2	2	8
C	A	6	7	8
D	B	1	2	3
E	A	1	4	7
F	C, D	1	5	9
G	C, D, E	1	2	3
H	F	1	2	9

Construct the project network and find the following :

- (1) Expected duration
 - (2) Variance of each activity
 - (3) Critical path
 - (4) Expected project completion time.
15. (a) What is SCM? Explain in detail about SCM lifecycle and requirement Change management process. (2 + 14)
- Or
- (b) (i) Write short notes on Quality function deployment in software quality assurance. (8)
- (ii) Describe the two ways in which system building tools in quality assurance can optimize the process of building a version of a system from its components. (8)