Name : ....

Roll No. : ....

Invigilator's Signature : ....

CS/MBA (NEW)/SEM-4(FT)/SM-404/2010

2010
SOFTWARE MANAGEMENT

Time Allotted : 3 Hours   *Full Marks :* 70

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.
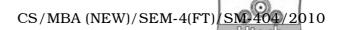
GROUP – A
(Multiple Choice Type Questions)

1. Choose the correct alternatives for the following : 10 × 1 = 10

    i)   Which of the following determines if the information system makes sense for the organization from an economic and operational standpoint ?

    a)   A feasibility study

    b)   A statement of work

    c)   A system service request

    d)   A resource schedule.

    ii) Designing and sequencing activities to attain project goals best describes the

    a)   customer relations project manager activity

    b)   conflict management project manager activity

    c)   team management project manager activity

    d)   technical problem solving project manager activity.

iii) Skills required for the management activity include

    a) communication; liaison between management, users and developers; assigning activities; monitoring progress

    b) defining and sequencing activities; communicating expectation; assigning resources to activities; monitoring outcomes

    c) communication within and between teams; peer evaluations; conflict resolution; team building; self-management

    d) problem solving; smoothing out personality differences; compromising; goal setting.

iv) Cocomo stands for

    a) customer cost model

    b) constructive cost model

    c) cozier costing model

    d) consumer cost model.

iv) The establishing management procedures activity involves

    a) defining the activities required to organize the initiation team while it is working to define the project's scope

    b) developing team communication and reporting procedures, job assignments and roles, project change procedures and determining how project funding and billing will be handled

    c) both (a) & (b)

    d) none of these.

v) Which of the following is the second phase of the project management process, which focuses on defining clear, discrete activities and the work needed to complete each activity within a single project ?

    a) Project execution   b) Project initiation

    c) Project planning   d) Project close-down.

vii) The process of dividing the project into manageable tasks and logically ordering them to ensure a smooth evolution between tasks best defines

    a) work breakdown structure

    b) decomposition

    c) task identification

    d) activity slicing.

viii) The describing of project scope, alternatives and feasibility activity involves

    a) defining the activities required to organize the initiation team while it is working to define the project scope

    b) developing team communication and reporting procedures, job assignments and roles, project change procedures and determining how project funding and billing will be handled

    c) both (a) & (b)

    d) none of these.

ix) A graphical representation of a project that shows each task activity as a horizontal bar whose length is proportional to its time for completion best describes

    a) work breakdown structure

    b) decision tree

    c) PERT chart

    d) Gantt chart.

x) Which of the following is the third phase of the project management process in which the plans created in the prior phases are put into action ?

    a) Project execution

    b) Project close-down

    c) Project implementation

    d) Project initiation.

GROUP – B

(Short Answer Type Questions)

Answer any *three* of the following. $3 \times 5 = 15$

2. Write main disadvantages of Putnam's resource allocation model. What are method overloading and method overriding ? $2 + 3$

3. Describe cumulative and quantitative risk.

4. What are work breakdown structure and CPM ?

5. Discuss Halstead's software model for determining effort and time estimation of software development.

6. Explain spiral model.

GROUP – C

(Long Answer Type Questions)

Answer any *three* of the following. $3 \times 15 = 45$

7. a) Write a brief note on basic COCOMO. Compare various COCOMO models.

   b) Suppose you are developing a software product in organic and embedded mode. The size of the product is 32000 lines of code. Compute the ratios of nominal effort and developing time of the above two modes.

   $3 + 4 + 8$

8. a) Describe 4G technique with its advantages.

   b) Describe various stages of SDLC. What are the various types of models found in SDLC ?
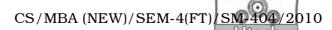
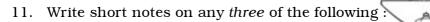   c) Describe functions of Human Resource Management.

   6 + 4 + 5

9. a) What are the different types of cost estimation techniques ?

   b) Describe risk monitoring and risk control in software management.

   c) Describe software configuration management.   5 + 5 + 5

10. a) Define PERT and CPM.

    b) A project consists of 8 activities with different relevant information :

Activity	Immediate Predecessor	Estimated duration (in days)		
		Optimistic	Most likely	Pessimistic
A	—	1	1	5
B	—	1	4	6
C	—	2	2	8
D	A	1	1	1
E	B	2	5	14
F	C	2	5	8
G	D, E	3	6	15
H	F, G	1	2	3

    i) Draw PERT network diagram.

    ii) Find out critical path.

    iii) What is expected duration of project ?

    3 + (6 + 5 + 1)

11. Write short notes on any *three* of the following : 3 × 5

    a)   RAD model

    b)   Gantt charts

    c)   SPMP

    d)   Function point

    e)   WBS.