



Name : .....

Roll No. : .....

Invigilator's Signature : .....

**CS/MBA(NEW)/SEM-4 FT & 6 PT/SM-404/2011**

**2011**

**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 determine 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.

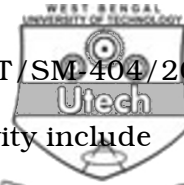


ii) Designing and sequencing activities to attain project goals best describe the

- 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

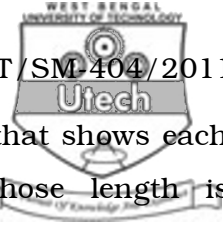
- a) communication; liaison between management, users and developers; assigning activities, monitoring progress
- b) defining and sequencing activities; communication expectations; assigning resource to activities; monitoring outcomes
- c) communication within and between teams; peer evaluations; conflict resolution; team building; self-management
- d) problem solving; smoothing out personality differences; compromising; goal setting.



- iv) Skills required for the management activity include
- a) communication; liaison between management, users and developers; assigning activities, monitoring progress
  - b) defining and sequencing activities; communication expectations; assigning resource 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.
- v) 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) and (b)
  - d) none of these.



- vi) 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 closedown.
- 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 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's scope
  - b) developing team communication and reporting procedures, job assignments and roles, projects change procedures and determining how project funding and billing will be handled
  - c) both (a) and (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 chat.
- 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 closedown
  - 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 the criteria for deciding whether a system be prototyped ? 2 + 3
3. Explain cumulative and quantitative risk.
4. What is work break-down structure and CPM ?
5. Discuss HALSTEAD's software model for determining effort and time estimation of software development.
6. Compare RAD and SDLC. List the differences between quantity circle and review group. 3 + 2



**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 ratio of nominal effort and developing time of the above two modes.

$( 3 + 4 ) + 8$

8. Lines of code ( LOC ) and function point counts ( FPC ) are two measures of the size of a system. Explain the advantages and disadvantages of using these two metrics for measuring system. Explain the main differences between software review and software inspection or walkthrough.

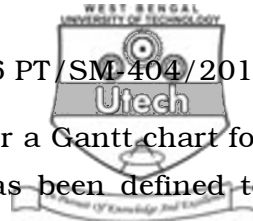
$8 + 7$

9. Explain "walk through". Compare between black box and white box testing. List the main goals of software quality assurance. List the different types of maintenance.

$3 + 4 + 4 + 4$

10. Describe the maturity levels of capability maturity model. List various Project Team Communication methods and describe an example of the type of information that might be shared among team members using each method. What is contained in Baseline Project Plan ? Is the content and format of all baseline plans the same ? Why or why not ?

$5 + 5 + 1 + 1 + 3$



11. List three advantages of PERT diagram over a Gantt chart for scheduling systems projects. A project has been defined to contain the following list of activities alongwith their required times for completion.

Task Code	Task Name	Duration	Starts after completion of task(s)
PLAN	Plan project	3	
REQ	Capture requirements	8	PLAN
AGREE	Agree requirements with customer	2	REQ
DESIGN	Design system	10	AGREE
CODE	Code system	12	DESIGN
ID	Identify subcontractors	3	DESIGN
BUY	Buy-in subcontractor code	5	ID
INTEG	Integrate code and buy-in code	6	CODE, BUY
TRAIN	Train staff	5	DESIGN
REL	Release sytem	4	INTEG, TRAIN

- Draw a PERT chart for the activities
- Calculate earliest expected completion time
- Show the CPM.  $3 + 5 + 3 + 4$

=====