



Name :
Roll No. :
Invigilator's Signature :

CS/MBA/SEM-4 FT & 6PT/SM-404/2013

2013

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

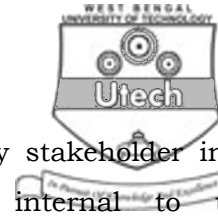
(Multiple Choice Type Questions)

1. Choose the correct alternatives for any *ten* of the following :

10 × 1 = 10

- i) The Project Life Cycle comprises which of the following ?
 - a) Phases
 - b) Milestones
 - c) Estimates
 - d) Activities.

- ii) Which of the following is not input to Risk management planning ?
 - a) The Project Charter
 - b) Risk identification
 - c) Defined roles & responsibilities
 - d) WBS.



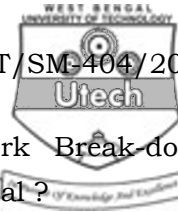
- iii) Which of the following is not a key stakeholder in a Project that creates a service internal to the organization ?
- a) Project Manager b) External customer
c) Project vendors d) Project team members.
- iv) Sunil is the Project Manager of the MNB project. He wants a vendor to offer his one price to do all of the detailed work. Sunil is looking for which type of document ?
- a) RFP b) RFI
c) Proposal d) IFB.
- v) You have an emergency on your project. You have hired a vendor to start work immediately. What contract is needed now ?
- a) T & M b) Fixed price
c) Letter contract d) Incentive contract.
- vi) Of the following, which one achieves customer satisfaction ?
- a) Completing the project requirements
b) Maintaining the project cost
c) Maintaining the project schedule
d) Completing the project with the detailed quality metrics.



- vii) Lucy is the Project Manager of a project. She has hired an independent contractor for a portion of the project work. The contractor is billing the project \$ 120 per hour, plus materials. This is an example of which one of the following ?
- a) Cost plus fixed fee b) Time & Material
c) Unit Price d) Lumpsum.
- viii) You are the Project Manager for the ABC Project. This project requires co-ordination with the Director of Manufacturing, Human Resources and the IT Department and the CIO. This is an example of what type of input to the organization ?
- a) Organizational interfaces
b) Technical interfaces
c) Interpersonal interfaces
d) Human resource coordination.
- 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 problem-solving technique is the best for most Project Management situations ?
- a) Confronting b) Compromising
c) Forcing d) Avoidance.
- xi) What tool can you use to determine a process in control or out of control ?
- a) Cause-and-effect diagram
b) Control chart
c) Run chart
d) Scatter diagram.
- xii) What is the preferred order for performing testing of IT projects ?
- a) Unit testing, integration testing, system testing & user acceptance testing
b) Unit testing, system testing, integration testing, user acceptance testing
c) Unit testing, system testing, user acceptance testing, integration testing
d) Unit testing, integration testing, user acceptance testing, system testing.
- xiii) What type of diagram shows planned and actual project schedule information ?
- a) Network diagram b) Gantt Chart
c) Tracking Gantt chart d) Milestone chart.



- xiv) What approach to developing a Work Break-down Structure is considered to be conventional ?
- a) Top-down
 - b) Bottom-up
 - c) Analogy
 - d) Mind-mapping.

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. For a team development, how the project performance improvement can be accomplished ?
3. List the tools and techniques for performing the Risk monitoring & Control.
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 various stages of SDLC. What are the various types of process models found in SDLC ?
- b) How does a Project Life Cycle differ from Product Life Cycle ?
9. a) Describe 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 eight independent activities.

Activity	Predecessor	Optimistic time	Most likely time	Pessimistic time
A	-	1	3	5
B	-	2	3	4
C	-	3	4	5
D	A	2	9	10
E	C	4	5	6
F	B,D,E	5	6	13
G	A	2	4	6
H	C	1	3	6



- 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) Rational Unified Process
 - b) Gantt charts
 - c) CMMi/P-CMM
 - d) Function point & Object point
 - e) Work Break-down Structure.
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