

SE

QP Code : 14676

(2½ Hours)

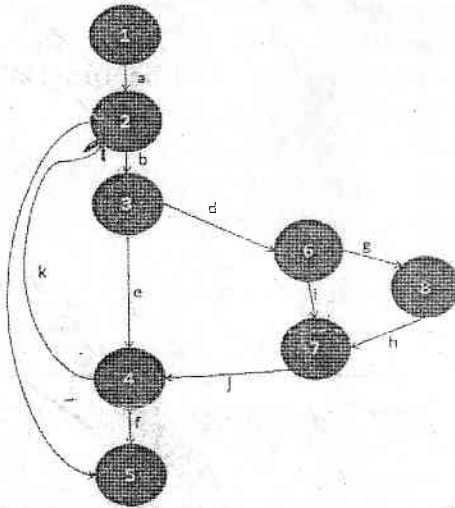
[Total Marks : 75

- N.B. : (1) All questions are compulsory.
(2) Figures to the right indicate full marks.
(3) Illustrations, in-depth answers and diagrams will be appreciated.
(4) Mixing of sub-questions is not allowed.

- Q1. Attempt the following (any THREE): 15
(A) State and Explain types of metrics used for software development.
(B) Describe in brief role and responsibilities of project manager.
(C) Define change management process. List out the steps followed at the time of change management process.
(D) What is function point? State the types of components used for calculating function point.
(E) Elaborate on COCOMO model in brief.
(F) Explain the concept of LOC with example.
- Q2. Attempt the following (any THREE): 15
(A) What is unified process? List out six main UP development disciplines. List additional support discipline needed for planning and controlling the project.
(B) State and explain core values of XP.
(C) Describe in short: Use case Estimation.
(D) What is CMM? State and explain levels of CMM.
(E) What is CASE TOOL? Explain what it contains?
(F) Elaborate on - RISK identification step of Risk assessment. State and explain any two risk item along with its risk management technique.
- Q3. Attempt the following (any THREE): 15
(A) Briefly explain objectives of software Testing.
(B) Write a short note on Static testing.
(C) Define Quality Assurance. State and explain any four elements required for software Quality assurance.
(D) State and explain three core steps of Six Sigma. Also state two additional steps for the improvement of the existing process which are suggested by Six Sigma.
(E) Write a short note on defect logging and tracking.
(F) Distinguish between Alpha testing and Beta testing.
- Q4. Attempt the following (any THREE): 15
(A) What is black box testing? State advantages and disadvantages of black box testing.
(B) Explain in detail with suitable example: conditional coverage statement.

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- (C) What is graph matrix? Draw a graph matrix for following flow graph.



- (D) Define Cause effect graph. Draw a cause effect graph for following:
- If A then B
 - If(A and B) then C
 - If(not(A and B)) then C
 - If(not A) then B
- (E) Explain with suitable example guidelines needed to follow for the condition of 'range' and 'specific values' condition at the time of defining equivalence classes.
- (F) Elaborate on several steps follow at the time of applying testing on web site.

Q5. Attempt the following (any THREE):

- List the challenges in software testing. Suggest the solution to meet these challenges.
- Write a short note on Gantt chart.
- Elaborate Localization and Information hiding for object oriented metrics.
- Describe in brief Agile development practices
- Distinguish between Unit testing and Integration testing.
- Write a short note on mutation testing.