QUESTION 2015

GROUP – A
(Multiple Choice Type Questions)

1. Choose the correct alternatives for the following:

i) Which of the following is not a SQA plan for a project?
   - ✓a) Evaluations to be performed
   - b) Amount of technical work
   - c) Audits and reviews to be performed
   - d) Documents to be produced by the SQA group

ii) Who identifies, documents and verifies that corrections have been made to the software?
   - a) Project manager
   - b) Project team
   - c) SQA group
   - ✓d) All of the above

iii) The primary objective of formal technical reviews is to find _____ during the process so that they do not become defects after release of the software.
   - ✓a) errors
   - b) equivalent faults
   - c) failure cause
   - d) none of the mentioned

iv) Which type of risk factor is most likely to cause problems for a software project developing commercial software?
   - a) Inadequate user documentation
   - b) Litigation expense
   - ✓c) Low productivity
   - d) Cancellation of project

v) Which form of software development model is most suited to a system where all the requirements are known at the start of a project and remain stable throughout the project?
   - ✓a) Waterfall model
   - b) Incremental model
   - c) Evolutionary model
   - d) Spiral model

vi) The number of people required for a software project is determined
   - ✓a) after an estimate development effort is made
   - b) by the size of the project budget
   - c) from an assessment of the technical complexity of the system
   - d) all of these

vii) Alpha testing is done by
   - a) customer
   - ✓b) developer
   - c) tester
   - d) all of these

viii) COCOMO is a
   - ✓a) heuristic estimation technique
   - b) empirical estimation technique
   - c) analytical estimation technique
   - d) none of these

ix) The testing process only reveals
   - ✓a) failures
   - b) errors in code
   - c) errors in logic
   - d) none of these

x) Which is the costliest phase of software development?
   - a) Analysis
   - ✓b) Maintenance
   - c) Coding
   - d) Testing

GROUP – B
(Short Answer Type Questions)

2. What are the roles of a team leader?
See Topic: PROJECT MANAGEMENT TOOLS & PLANNING, Short Answer Type Question No. 4.

3. What do you mean by feasibility study?
See Topic: TESTING, Short Answer Type Question No. 4.

B.SOFT.102

4. What do you know by stub and drivers in integration testing?
See Topic: TESTING, Short Answer Type Question No. 12.

5. What are the four P's of software project management?
See Topic: PROJECT MANAGEMENT TOOLS & PLANNING, Short Answer Type Question No. 9.

6. State the advantages and disadvantages of LOC.
See Topic: S/W PROJECT LIFE CYCLE, Short Answer Type Question No. 10.

GROUP – C
(Long Answer Type Questions)

7. a) State the different phases of SDLC.
b) Distinguish between Quality Control and Quality Assurance.
c) What are McCall's Quality Factor?
a) See Topic: S/W PROJECT LIFE CYCLE, Short Answer Type Question No. 1.
b) See Topic: QUALITY & RISK MANAGEMENT TOOLS, Long Answer Type Question No. 1(c).
c) See Topic: QUALITY & RISK MANAGEMENT TOOLS, Short Answer Type Question No. 1.

8. a) What are the different categories of software development projects according to the COCOMO estimation model?
b) A project size of 350 KLOC is to be developed. Software development team has a moderate experience in developing similar type of projects and the project schedule is not very tight. Compute the effort, nominal development time, productivity and average staff size of the project.
c) What is the difference between intermediate and advanced COCOMO?
a) See Topic: TESTING, Long Answer Type Question No. 3(a).
b) See Topic: TESTING, Long Answer Type Question No. 10(a).
c) See Topic: TESTING, Long Answer Type Question No. 10(b).

9. Suppose you have the following set of activities and their predecessor, optimistic, pessimistic and most likely time are also given below.

Activity	Predecessor	Optimistic time	Pessimistic time	Most likely time
A	-	2	4	9
B	-	4	4	7
C	A	3	5	8
D	A	4	5	6
E	B, C	4	5	7
F	D	4	6	8
G	E	3	4	8

(i) Find the expected time in each activity and draw the PERT chart.
(ii) What are the earliest and latest start time and earliest completion time for the project?
(iii) Mark the critical path.
See Topic: PROJECT MANAGEMENT TOOLS & PLANNING, Long Answer Type Question No. 8.

10. For how many levels a software product is normally tested? Explain Equivalence Class Partitioning with proper example. Explain Control Flow Diagram with an example. What do you know by Cyclomatic Complexity?
1st part: See Topic: QUALITY & RISK MANAGEMENT TOOLS, Long Answer Type Question No. 8(c).
2nd part: See Topic: S/W PROJECT LIFE CYCLE, Long Answer Type Question No. 13(a).
3rd part: See Topic: S/W PROJECT LIFE CYCLE, Short Answer Type Question No. 13(b).

B SOFT-103

4th part: See Topic: TESTING, Long Answer Type Question No. 1.

11. Write short notes on any three of the following:
   a) Software Quality
   b) Function point Method
   c) Capability Maturity Model
   d) CPM
   e) Gantt Chart

a) See Topic: QUALITY & RISK MANAGEMENT TOOLS, Long Answer Type Question No. 11(i).
b) See Topic: PROJECT MANAGEMENT TOOLS & PLANNING, Long Answer Type Question No. 10(f).
c) See Topic: QUALITY & RISK MANAGEMENT TOOLS, Long Answer Type Question No. 11(b).
d) See Topic: PROJECT MANAGEMENT TOOLS & PLANNING, Long Answer Type Question No. 10(a).
e) See Topic: PROJECT MANAGEMENT TOOLS & PLANNING, Long Answer Type Question No. 10(b).