QUESTION 2017

GROUP – A
(Multiple Choice Type Questions)

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

i) To allocate resource to activities we use
a) Gantt Chart b) PERT chart ✓c) CPM d) none of these

ii) Different phases of risk management are
a) Risk identification b) Risk analysis c) Risk monitoring ✓d) All of these

iii) The next major step before system designing and after feasibility studies is
✓a) Analysis activity b) Equipment selection activity
c) Implementation activity d) none of these

iv) Project planning does not include
a) Risk identification b) Design c) Cost estimation ✓d) Configuration

v) The main goal of quality assurance is to
a) set coding standards ✓b) improve software project management
c) reduce the technique and programmatic risk in developing software
d) specify correcting action

vi) The algorithm cost modeling is
a) MTTF ✓b) COCOMO
c) McCabe Cyclometric Measurement Analysis d) none of these

vii) The combination of the top-down and the bottom-up approach may be referred to as an
✓a) Integrative approach b) Interpretive approach
c) Interactive approach d) both (b) and (c)

viii) Schedule slippage is a type of
a) Business risk ✓b) Project risk c) Technical risk d) none of these

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

The maximum percentage of error lies in the
a) Design b) Maintenance c) Coding ✓d) Specifications

PERT stands for
✓a) Project Evaluation and Review Technique
b) People Evaluation and Review Technique
c) Project Estimation and Review Technique
d) Product Evaluation and Review Technique

Group – B
(Short Answer Type Questions)

What are the important activities that are carried out during Feasibility study?
See topic: **TESTING, Short Answer Type Question No. 4.**

What are McCall's quality factors? Distinguish between verification and validation.
1st part: See topic: **QUALITY & RISK MANAGEMENT TOOLS, Short Answer Type Question no.1.**
2nd part: See topic: **S/W PROJECT LIFE CYCLE, Short Answer Type Question No. 4.**

What is the difference between Classical and Iterative Waterfall model?
See topic: **S/W PROJECT LIFE CYCLE, Short Answer Type Question No. 12.**

What is software documentation? What are its uses?
See Topic: **QUALITY & RISK MANAGEMENT TOOLS, Short Answer Type Question No. 1.**

What is software maintenance? What are the different types of software maintenance?
See topic: **TESTING, Short Answer Type Question No. 13.**

Group – C
(Long Answer Type Questions)

7. a) What is SDLC model?
b) What is called Meta model and why? Describe the different activities involved in this model.
c) State the advantages and disadvantages of evolutionary model. Why is it called incremental model?
d) What is phase containment of errors?
See topic: **S/W PROJECT LIFE CYCLE, Long Answer Type Question no.4.**

8. a) What is COCOMO model?
b) What are the different categories in which a product can be classified based on its development complexity?
c) Assume that the size of an organic software product has been estimated to be 32,000 lines of source code. Assume that the average salary of each of software engineers is Rs. 15,000 per month. Determine the effort required to develop the software product and the nominal development time.
d) Explain ISO 9000 Series of standards
a) See topic: **TESTING, Long Answer Type Question no.5 (a).**
b) See topic: **TESTING, Long Answer Type Question no.5 (b).**
c) See topic: **TESTING, Short Answer Type Question no.10.**
d) See topic: **QUALITY & RISK MANAGEMENT TOOLS, Long Answer Type Question no.4(c).**

9. a) What is software testing? What are the different types of software testing?
b) Differentiate between black-box testing and white-box testing.
c) Consider the following code and calculate the no. of independent paths using McCabe's cyclomatic complexity metric. Also design test cases

```
void main ( )
{int a, b = 0"
For (a = 1; a<=10; a++)
    If (a%2==0)
        b++;
    Else
        b+=2;
printf ("b=%d", b);}
```

a) See topic: TESTING, Short Answer Type Question no.14.
b) See topic: TESTING, Short Answer Type Question no.8.
c) See Topic: S/W PROJECT LIFE CYCLE, Long Answer Type Question No. 9.

10.

Activity	Preceding activity	Optimistic time	Pessimistic time	Most Likely time
A	–	2	6	4
B	–	3	10	5
C	A	3	8	7
D	A	4	10	7
E	B,C	3	8	7
F	D	3	8	4
G	E	3	8	7

Calculate the Earliest Starting Time (EST), Latest Starting Time (LST), Earliest Finishing Time (EFT), Latest Finishing Time (LFT) for each activity. Also draw the PERT chart, GANTT chart and calculate the critical path

See Topic: PROJECT MANAGEMENT TOOLS & PLANNING, Long Answer Type Question No. 9.

11. Write the short notes any three of the following:
a) Reliability metrics
b) ISO vs. CMM
c) FTR
d) Risk management
e) SRS

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