CS/BCA/EVEN/SEM-4/BCA-403/2015-16

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Paper Code : BCA-403

SOFTWARE PROJECT MANAGEMENT AND QUALITY ASSURANCE

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 :

$10 \times 1 = 10$

i) The four icons used in building DFDs are

   a) flow, process, source/destination, store

   b) flow, source, store, process

   c) flow, process, source, store

   d) source, process, destination, store.

ii) White Box testing is also known as

   a) Procedure Testing   b) Performance Testing

   c) Structural Testing   d) All of these.

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iii) Data Dictionary keeps details of the contents of

    a) data flow   b) data store

    c) both (a) and (b)   d) neither (a) and (b).

iv) Which one is not a strategy for design ?

    a) bottom up design   b) top down design

    c) embedded design   d) hybrid design.

v) Alpha testing is done by

    a) Programmer   b) User

    c) Both (a) and (b)   d) None of these.

vi) A system that does not interact with external environment is called

    a) closed system   b) logical system

    c) open system   d) hierarchical system.

vii) The most important feature of Spiral model is

    a) Quality management

    b) Maintenance

    c) Risk Assessment

    d) None of these.

viii) Real time system is

    a) Distributing System

    b) Operating System

    c) Maintaining System

    d) Requirement System.

ix) In the analysis and presentation of logic, which of the following techniques will ensure that all the combinations of conditions have been considered ?

    a) HIPO chart   b) Decision table

    c) Pseudo code   d) DFD.

x) Documentation package includes

    a) Flowcharts   b) Test brochures

    c) Cover letters   d) All of these.

GROUP – B
(Short Answer Type Questions)
Answer any *three* of the following   3 × 5 = 15

2. What is the difference between ISO 9001 and SEI/CMM ?

3. What are the different types of risks ? Briefly explain each of them.

4. What is the difference between validation and verification ?

5. What is SPMP ? Why is it essential in software engineering ?   2 + 3

6. What is 4Ps of software project management ?

GROUP – C
(Long Answer Type Questions)
Answer any *three* of the following.   3 × 15 = 45

7. What do you mean by software quality ? Briefly describe McCall's quality factors ? What is SQA ? Briefly describe it.   5 + 5 + 5

8. Assume that the size of an organic type software product has been estimated to be 32,000 lines of source code. Assume that the average salary of software engineers be Rs. 15,000/- per month. Determine the effort required to develop the software product and the nominal development time.

9. Define stakeholder. Write down the reasons of failure of waterfall model ? What are the drawbacks of RAD model ?   2 + 6 + 7

10. List the process maturity model of CMM. What is the difference between cohesion and coupling ? What is the need of modularity ?   6 + 6 + 3

11. Write short notes on any *three* of the following :

                                                                3 × 5

    a)   Static testing tools

    b)   CASE tools

    c)   4GT

    d)   SCM

    e)   CRC modeling.

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