CS/BCA(N)/EVEN/SEM-2/BCAN-202(N)/2018-19

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Paper Code : BCAN-202(N)

SOFTWARE ENGINEERING

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) SRS stand for

        a) Software Requirement Specification

        b) Software Requirement Solutions

        c) System Requirement Specification

        d) None of these.

ii) Waterfall model is not suitable for

   a) small projects

   b) accommodating changes

   c) complex project

   d) none of these.

iii) The nature of tasks of DSS is

   a) highly structured   b) semi-structured

   c) unstructured   d) both (b) and (c).

iv) Which phase is not available is Software life cycle ?

   a) Coding   b) Testing

   c) Maintenance   d) Abstraction.

v) MIS considers

   a) only qualitative factors

   b) only quantitative factors

   c) both (a) and (b)

   d) none of these.

vi) Regression testing is a major part of which of the following life cycle ?

   a) Waterfall model   b) V model

   c) Iterative model   d) All of these.

vii) Operational Feasibility examines

    a)   cost related with the software development

    b)   whether the proposed method can fit in with existing operations

    c)   risk assessment

    d)   none of these.

viii) Which level of DFD is also known as Context Level Diagram ?

    a)   1-level   b)   0-level

    c)   2-level   d)   None of these.

ix) Cost benefit analysis is also known as

    a)   Social feasibility

    b)   Technical feasibility

    c)   Economical feasibility

    d)   None of these.

x) A decision table is

    a)   a truth table

    b)   a table that facilitates taking decisions

    c)   a table listing conditions and actions to be taken based on the testing of conditions

    d)   a table in a decision support system.

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

    a) closed system   b) logical system

    c) open system   d) hierarchical system.

xii) Functional testing is also known as

    a) white box testing   b) black box testing

    c) regression testing   d) none of these.

GROUP – B

(Short Answer Type Questions)

Answer any *three* of the following.   3 × 5 = 15

2. Write the advantages and disadvantages of prototype model.

3. What is black box testing ? How does it differ from white box testing ?   3 + 2

4. What are the different levels of CMM ?

5. Define decision table. Write down the steps to built-up decision table.   2 + 3

6. Explain the importance of CASE tools with example.

GROUP – C

(Long Answer Type Questions)

Answer any *three* of the following. 3 × 15 = 45

7. a) What is DFD ? Discuss different symbols used in DFD.

b) Differentiate between Logical DFD and Physical DFD.

c) Draw the E-R diagram showing the cardinality for the following problem :

A store has different counters managed by different employees. A counter has different items but no two counters have common items. Customer buys from different counters. Bills are prepared from bill counter only.

d) Explain generalization and specialization.

3 + 2 + 6 + 4

8. a) Distinguish between software verification and software validation. http://www.makaut.com

b) The discount policy has following conditions for the customers. If orders for 6 or more copies per book tile.

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If customer is from 'Libraries and individual' :

5% allowed on order of 6-19 copies per book title
10% on orders for 20 copies per book title and
15% on order for 50 copies per book title. Develop
a process description in $\bar{N}$:

i) Structured English

ii) Decision Table

iii) Decision Tree.

9. a) What are the functions of Quality Assurance Group (QAG) ?

b) List five salient features for awarding the ISO 9001 certificate to a software development organization.

c) Differentiate between ISO 9001 and CMM.

10. a) What is SRS and what should be the contents of SRS ?

b) Explain Work Breakdown Structure with suitable diagram.

c) What is activity network ? Explain with suitable diagram.

11. Write short notes on any *three* of the following :   3 × 5

   a)   ERP

   b)   System testing

   c)   Decision table and decision tree

   d)   CRM

   e)   E-Business.

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