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B.C.A. (Third Semester)
Examination, 2023

Paper : II

Software Engineering

Paper : BCA 302

Time : Three Hours] | Maximum Marks : 70

Note : Attempt questions from all sections as per instructions. Use of calculator is allowed.

Section-A

(Very Short Answer Type Questions)

Note : Attempt **all** parts of this section. Give answer of each part in about **50** words. 1.5×10=15

1. (a) Write the need of software.

(b) What is Software and Software Engineering?

P.T.O.

(2)

(c) What is Software Prototype?

(d) What is Software Specification?

(e) What do you mean by problem partitioning?

(f) What is functional dependency?

(g) What is structured programming?

(h) What is the need of test plan?

(i) What do you mean by cost efficient software?

(j) What is staffing in software management?

Section-B

(Short Answer Type Questions)

Note : Attempt **all** questions. Give answer of each question in about **200** words. 7×5=35

2. Write and explain the features of a Software.

OR

Write about the software development phases.

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3. Explain the Incremental model of software design with suitable diagram.

OR

Write about the spiral model of software development.

4. Write and differentiate top-down and bottom-up approaches of software design.

OR

Define and explain about software architecture.

5. Write and differentiate functional testing and unit testing of software.

OR

What is black box testing and white box testing? Explain in detail.

6. What do you mean by software project management spectrum? Explain.

OR

Differentiate structured and unstructured maintenance of software.

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P.T.O.

(4)

Section-C
(Long Answer Type Questions)

Note : Attempt any two questions of this section. Give answer of each question in about **500** words. $10 \times 2 = 20$

7. Briefly explain about the usages of software in our daily life with suitable example.

8. Write about the role of monitoring and control in software requirement specification.

9. Brief some design principles of a good software.

10. Write short notes on the following :
    (a) Structural testing
    (b) Verification and Validation

11. What do you mean "THE PEOPLE, THE PRODUCT, THE PROCESS, THE PROJECT Spectrum"? Explain in brief.

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