

Roll No. ....

Total No. of Sections : 3

Total No. of Printed Pages : 4

**Annual Online Examination 2021**

**Code No. : A.B.C-396**

**B.C.A. Part III**

**SOFTWARE ENGINEERING**

**BCA-304**

**Paper I**

[Software Engineering]

Time : Three Hours ]

[ Maximum Marks : 100

*Note : Section 'A' containing 10 very short answer type questions, is compulsory. Section 'B' consists of short answer type questions and Section 'C' consists of long answer type questions. Section 'A' has to be solved first.*

**Section 'A'**

*Answer the following Very Short Answer Type Questions in one or two sentences : 2×10=20*

1. Define software product.
2. What is spiral model ?
3. Define phase management.
4. What is function oriented matrix ?
5. What do you mean by SRS ?

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6. Define structured analysis.
7. What is coupling ?
8. What do you mean by software design ?
9. Define Black box testing.
10. Define Integration.

**Section 'B'**

*Answer the following Short Answer Type Questions in about 150-200 words : 6×5=30*

1. What do you mean by software engineering ? Explain software engineering problems.

**Or**

Explain life cycle of software.

2. Explain size oriented matrix in detail.

**Or**

How is software matrix helpful in project management ? Explain.

3. Explain data flow diagram with example.

**Or**

Explain context diagram with example.

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4. Explain the principles of software designs.

Or

Explain structured chart in detail.

5. What is White box testing ? Explain with example.

Or

Explain software maintenance in detail.

### Section 'C'

*Answer the following Long Answer Type Questions  
in about 300-350 words : 10×5=50*

1. What are the principles of software engineering ?  
Explain in brief.

Or

Draw neat diagram of water fall model and explain it  
along with its advantages and disadvantages.

2. Explain project management techniques and list out  
its various phases.

Or

What are the various function oriented matrix used in  
project management ? How it is different from size  
oriented matrix ? Explain.

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3. What is SRS ? Explain various characteristics of SRS  
and needs of SRS.

Or

What is data dictionary ? Explain data dictionary of  
library management system.

4. Justify the statement : "A software module should have  
low degree of coupling and high degree of cohesion."

Or

Write short notes on : (any **two**)

(a) Partitioning,

(b) Abstraction,

(c) Code verification and validation.

5. What do you mean by software testing ? Discuss the  
objective of software testing along with its principle.

Or

Explain different types of maintenance practices that  
may appear in software product.

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