

BCA 3rd SEMESTER EXAM. 2014
SOFTWARE ENGINEERING CODE- 303304

Time: 3 hours

Full Marks: 60

Instructions:

- i. The Marks are indicated in the right -hand margin.
- ii. There are **SEVEN** questions in this paper.
- iii. Attempts **FIVE** question in all.
- iv. Question Nos. **1** and **2** are compulsory.

1. Answer the following as directed (any six).

6*2=12

(a) What is the main concern of software engineering area?

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|-----------------------------|---------------------------|
| (I) Hardware configuration | (II) Software Production |
| (III) Network Configuration | (IV) Software Reusability |

(b) The worst type of coupling is

- | | |
|----------------------|-----------------------|
| (I) Data coupling | (II) Control coupling |
| (III) Stamp coupling | (IV) Content coupling |

(c) All the modules of the system are integrated and tested as complete system

In the case of

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|------------------------|------------------------|
| (I) Bottom-up testing | (II) Bing-band testing |
| (III) top-down testing | (IV) Sandwich testing |

(d) SRS in also known as specification of

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|-------------------------|-------------------------|
| (I) White-box testing | (II) Stress testing |
| (III) Black-box testing | (IV) Integrated testing |

(e) COCOMO stands for _____.

(f) Abstract data type does not allow inheritance.

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|----------|------------|
| (I) True | (II) False |
|----------|------------|

(g) The too that supports different stage of software development life cycle are called

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|-----------------|----------------|
| (I) CASE tool | (II) CAME tool |
| (III) CAQE tool | (IV) CARE tool |

(h) Change the made to the system to reduce the future system failure change is called ___.

(i) Requirement can be refined using

(I) Waterfall model (II) Prototyping model

(III) Evolutionary model (IV) Spiral model

(j) The main purpose of integration testing is to find

(I) Design errors (II) Analysis errors

(III) Procedure errors (IV) Interface errors

2. Answer any three of the following: 3*4=12

(a) What is the prototype? Under what circumstances it is beneficial to construct Prototype?

(b) List of the important shortcoming of LOC for use as a software size metric.

(c) What do you mean by balancing a DFD? Illustrate with example.

(d) What is the difference between Black -box and white-box testing?

(e) How can you determine the number of latent defects in a software product during the testing phase?

Answer any three of the following: 3*12=36

3. (a) During the software testing process why is the reliability growth initially high but Shows down later on? 6

(b) What is the six-sigma quality initiative? Explain. 6

4. (a) What do you mean by side effects of a function call? Give example. 6

(b) What is regression testing? When is it done? Why it is necessary? How is it performed? 6

5. (a) Distinguish between DFD and flow –chart.

6 (b) What is the main shortcoming of DFD as a tool for performing structured analysis? 6

6. (a) What do you understand by siding window planning? Give example and its advantage. 6

(b) What are the different categories of software development projects according to the COCOMO estimation model? Give example for each. 6

7. (a) How are risks associated with a project handed in the spiral mode of software development? 6

(b) Why is it not prudent to use the iterative waterfall model for developing very large software products. 6