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294405

NBC405

(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 294405

Roll No.

MCA-DUAL DEGREE
(SEM. IV) THEORY EXAM. 2014-15
SOFTWARE ENGG

Time : 3 Hours] [Total Marks : 100

Note : Attempt the questions as indicated.

Q1. Attempt any ***four*** parts from the following : 5x4=20

(a) What is software development life cycle? Discuss the generic waterfall model.

(b) Define the term "Software Engineering". Explain the major differences between software engineering and other traditional engineering disciplines.

Q5. Attempt any ***two*** parts from the following : 10x2=20

(a) Explain all levels of COCOMO model. Assume that the size of an organic software product has been estimated to be 32,000 lines of code. Determine the effort required to develop the software product and the nominal development time. What is software project estimation? What is COCOMO model? Explain.

(b) What are the benefits of using CASE tools? Explain in detail.

(c) Define the following :

(i) Information hiding

(ii) Integration testing

(iii) Black-box testing

(iv) Structural programming

(v) Regression testing

(c) Distinguish between generic and customized software products. Which one has larger share of market and why?

(d) Discuss different components of the Software Engineering involved in the development process.

(e) Discuss software process and product metrics with the help of examples.

Q2. Attempt any ***four*** parts from the following : 5x4=20

(a) List advantages of software requirement specification. Describe characteristics of a good software requirement specification.

(b) Discuss various key process areas of CMM at various maturity levels.

(c) What do you understand with the term "requirement elicitation"? Discuss any two techiniques.

(d) How does reliability and correctness are interrelated? Explain.

(e) Explain various types of coupling and define module coupling.

Q3. Attempt any ***two*** parts from the following : 10x2=20

(a) What is black-box testing? List its advantages and disadvantages.

(b) What is bottom up design? Discuss its benefits and limitations.

(c) Define the S/W metrics and distinguish the term Measured, Metrics and Indicators.

Q4. Attempt any ***two*** parts from the following : 10x2=20

(a.) Why project scheduling is required? Write three techniques of software project scheduling.

(b) What is software project estimation? What is COCOMO model? Explain.

(c) What are the various debugging approaches? Discuss them will the help of examples.