Question Paper

MANIPAL ACADEMY OF HIGHER EDUCATION

SCHOOL OF INFORMATION SCIENCE (SOIS)
SECOND SEMESTER Master of Science - M.Sc (INFORMATION SCIENCE)
DEGREE EXAMINATION - APRIL 2018
Wednesday, 25 April 2018
Time : 10:00 am to 1:00 pm
Software Engineering [MIS 504]

Marks: 100   **Duration: 180 mins.**

Answer all the questions.

1) Explain in detail the following aspects of software engineering.   (10)
   a. Maintenance Aspect
   b. Team Programming Aspects
   c. Design and Programming Aspects

   (Marks 3+3+4)

2) What is Software? What is a good software?What is software engineering?What is the difference between software engineering and computer science?   (Marks 2.5 X 4)   (2.5)

3) Briefly discuss the below with an example   (3)
   a) As-is scenario b) Visionary scenario   c) Evaluation scenario d)Training scenario

   (Marks 2.5 X 4)

4) Give brief description of UML modeling elements in class diagrams given below   (3)
   a. Association, aggregation, dependency.   (Marks 6)
   b. Inheritance relationships   (Marks 4)

5) Give the software architecture diagram of a system with 5 important contributing factors?How we can segregate Software Architecture and Design into two distinct phases? What is software architecture discuss in detail?   (Marks 4+2+4)   (3)

6) Why we need layout in user interface design? Give standard windows or Macintosh approach for screen layout? Name different properties or purposes of the layout?

    (Marks 4+4+2) (3)

7) List five major parts of the ISO 9001:2000 document Requirements and briefly explain them? (10)

8) Discuss Equivalence class partitioning and Boundary value analysis approaches used to design black box test cases for the following requirement.
    For a function that computes the square root of integer values in the range between 0 and 5000. (10)

9) Name 4 unit testing approaches at organizational level? Explain Isolation testing in detail?Discuss advantages and disadvantages of isolation testing?   (Marks 2+6+2) (10)

10) Discuss at least 6 coding standard Guide lines (10)

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