NEW

2015

MBA 3rd Semester Examination

DECISION SCIENCE AND SOFTWARE ENGINEERING

(Specialisation : Operations and Systems Management)

PAPER—OS-301

Full Marks : 100

Time : 3 Hours

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

1. Answer any *eight* questions out of following : 5×8

(a) What are functions of data architecture ?

(b) Distinguish varification and validation.

(c) What are the differences between a model-oriented specification method and a property-oriented specification method ?

(d) Define the term software reliability and software quality.

(e) Write advantages of PERT.

(f) State and explain important attributes of software quality.

(g) Explain why the spiral life cycle model is considered to be a Meta model ?

(h) State System Engineering Hierarchy.

(i) What is black box testing, discuss it.

(j) What do you understand by a code walkthrough ?

(k) What do you understand by performance technique of a software product ?

(l) State and briefly explain the concept of TQM.

2. Answer any *four* questions of the following : 10×4

(a) State and explain the concept of Product Development Life Cycle (PDLC).

(b) What is the difference between black-box testing and white-box testing ?

(c) (i) What do you understand by system testing ?

(ii) What are different kinds of system testing for software ?

(d) The followings are the details of estimated times of activity of a certain project.

Activity	Immediate Preceding Activity	Duration (Weeks)
A	—	3
B	—	3
C	—	3
D	A	4
E	B	8
F	C	4
G	D	2
H	E, F	5
I	G, H	4

(i) Find the critical path and expected number of weeks for completion of project.

(ii) Find out the slack for each activity. 6+4

(e) Explain how a software development process is initiated and terminated in the spiral model ?

(f) Write short notes upon any *two* of the following :

(i) Software Myths ;

(ii) Gwatt chart ;

(iii) Quality Control Tool. 5+5

[Internal Assessment : 20]

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