SARDAR PATEL UNIVERSITY
External Examinations
M.Sc. (Information Technology) Semester – II
PS02CINT02: SOFTWARE ENGINEERING
Monday, 4th April, 2016

Time: - 10:30 A.M. to 1:30 P.M.　　　　　　　　　Max Marks: 70

Q-1　Choose the most appropriate option for each question.　　　　[8]

i)　The goal of _____ process model is to counter the first two limitations of the waterfall model.
　　[A] Iterative　　　　　　　　　　　　[B] Prototype
　　[C] Spiral　　　　　　　　　　　　　[D] Time-Boxing

ii)　__ refers to the difference between actual output and ideal output.
　　[A] Mistakes　　　　　　　　　　　　[B] Fault
　　[C] Error　　　　　　　　　　　　　[D] Failure

iii)　____ of a process determines how accurately the outcome of following that process in a project.

　　[A] Portability　　　　　　　　　　　[B] Predictability
　　[C] Prototyping　　　　　　　　　　　[D] All of these

iv)　____ is example of dynamic view modeling in UML.
　　[A] Class Diagram　　　　　　　　　　[B] Deployment Diagram
　　[C] Sequence Diagram　　　　　　　　 [D] None of These

v)　____ is known as functional or behavioral testing.
　　[A]Black Box Testing　　　　　　　　 [B]White Box Testing
　　[C] Enhancive Testing　　　　　　　　[D] State Based testing

vi)　___ requirements are the constraints imposed and deal with issues like maintainability, security, etc.
　　[A] Functional　　　　　　　　　　　 [B] Non-functional
　　[C]　Domain　　　　　　　　　　　　[D] None of These

vii)　Which of the following is not a type of cohesion?
　　[A] Logical　　　　　　　　　　　　 [B] Communicational
　　[C] Temporal　　　　　　　　　　　　[D] None of These

viii)　___ is an element of work done during project having an expected duration, cost and resource requirements.
　　[A] Program　　　　　　　　　　　　 [B] System
　　[C] Task　　　　　　　　　　　　　 [D] None of these

Q-2　Answer the following questions (Any Seven).　　　　[14]

i)　List challenges of software engineering.

ii)　Define software requirement. List types of requirements.

iii)　What is software design? What are the levels of software design?

iv)　What is test database?

v)　List various components of DFD.

vi)　Discuss the role of system analyst in brief.

vii)　State any four primary duties performed by the project manager.

viii)　Explain in brief any two project management activities.

ix)　Give for names of popular commercial testing modes.

Q-3

[A] Explain Waterfall model with its advantages and disadvantages. [06]

[B] What is SRS? Explain general structure of SRS given by IEEE. [06]

OR

[B] What is software process? List and explain desired characteristics of software process.

Q-4

[A] Write a note on COCOMO model taking suitable example. [06]

[B] Explain risk management process in detail. [06]

OR

[B] List out different activities in requirement engineering process. Explain any two of them in detail.

Q-5

[A] What is coupling? Briefly explain types of coupling. List solutions to reduce the coupling. [06]

[B] List and briefly explain common coding errors. [06]

OR

[B] What is UML? Explain any two UML diagrams by giving suitable example.

Q-6

[A] What is coding? List different coding processes, and explain any two of them. [06]

[B] Write note on software re-engineering. [06]

OR

[B] What is software maintenance? Briefly explain different types of software maintenance.

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