

Total No. of printed pages = 4

CS 131702 NR

Roll No. of candidate

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Halki Wapara,
Wahat, 517

B.Tech. 7th Semester End-Term Examination

CSE

SOFTWARE ENGINEERING

(New Regulation)

Full Marks – 70

Time – Three hours

The figures in the margin indicate full marks
for the questions.

Answer question No. 1 and any *four* from the rest.

1. Answer the following (Multiple choice) : (10 × 1 = 10)

- (i) Software consists of
- (a) Set of instructions + operating procedures
 - (b) Programs + documentation + operating procedures
 - (c) Programs + hardware manuals
 - (d) Set of programs
- (ii) Which of the following is also known as "Behavioural" testing?
- (a) Black-box testing
 - (b) White-box testing
 - (c) Both (a) and (b)
 - (d) None of the above
- (iii) Which of the following is not true about Software Validation?
- (a) Validation ensures the product under development is as per the user requirements
 - (b) Validation do not emphasizes on user requirements
 - (c) Validation emphasizes on user requirements
 - (d) Validation is carried out at the end of the SDLC

[Turn over

- (iv) Which diagram of UML represent Interaction modeling?
(a) Use Case (b) Sequence
(c) State Chart (d) Both (a) and (b)
- (v) Choose the option that does not define Function Oriented Software Design
(a) It consists of module definitions
(b) Modules represent data abstraction
(c) Modules support functional abstraction
(d) None of the above
- (vi) Which of the following defines the degree of intra-dependability within elements of a module?
(a) Cohesion (b) Coupling
(c) Design Verification (d) None of the above
- (vii) When multiple modules share common data structure and work on different part of it, it is called _____
(a) Common coupling (b) Share coupling
(c) Data coupling (d) Stamp coupling
- (viii) Which of the following is true about Software Verification?
(a) Verification ensures the product being developed is according to design specifications
(b) Verifications concentrates on the design and system specifications
(c) Both (a) and (b)
(d) None of the above
- (ix) Which of the following is not project management goal?
(a) Keeping overall costs within budget
(b) Delivering the software to the customer at the agreed time
(c) Maintaining a happy and well-functioning development team
(d) Avoiding customer complaints
- (x) Which of the following is not a type of maintenance?
(a) Adaptive Maintenance (b) Preventive Maintenance
(c) Perfective Maintenance (d) Performative Maintenance

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2. (a) Write the desirable characteristics of a good SRS document. (4)
- (b) Why SRS document is also known as the black-box specification of a system? (2)
- (c) Write notes on:(any three) (3 × 3 = 9)
- (i) CASE Tools
- (ii) Use case
- (iii) Reverse Engineering
- (iv) TQM.
3. (a) What is a Prototype model? What are the major advantages of first developing the prototype of a system? Does the construction of a prototype model always increase the overall cost of the Software development? (2+1+1=4)
- (b) What is risk? How risk management plays a major role in software development? (2+3=5)
- (c) What do you mean by Verification and Validation? (2)
- (d) What is coupling? (1)
- (e) What is meant by software configuration management? What is the relationship between software configuration management and software maintenance? (1+2=3)
4. (a) What is the aim of Software Engineering? Mention five important desirable characteristics of a good Software Engineer. (1+5=6)
- (b) Distinguish between a Program and a Software Product. (2)
- (c) Compare the relative advantages of the Gantt chart and the PERT chart representations of a schedule. (7)
5. (a) Explain why the Spiral model is considered to be a meta model. (2)
- (b) Compare the relative advantages of using the Water Fall model and the Spiral model of Software development. (4)
- (c) How is cost estimate done using the COCOMO model? Describe. (6)
- (d) What is sliding window planning? What are its advantages over conventional planning? (3)

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6. (a) What is black box and white box testing? "Without both, testing is incomplete." Justify or contradict. (2+5=7)
- (b) How cohesion can affect software? Explain about various cohesions. (2+6=8)
7. (a) Describe waterfall life cycle model. Can you relate this to CMM model? Justify your reason. (5+3=8)
- (b) What are the shortcomings of ISO 9000 certification? (4)
- (c) Explain SEI CMM model in brief. (3)

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