

KATHMANDU UNIVERSITY
End Semester Examination
August, 2018

Marks scored:

Level : B.Sc.
Year : IV

Course : COMP 421
Semester : I

Exam Roll No. :

Time: 30 mins.

F. M. : 10

Registration No.:

Date **AUG 19 2018**

SECTION "A"

[20 Q × 0.5 = 10 marks]

1. Which is true for SRS?
 SRS is the main input of the software product design process
 SRS is the main output to the engineering design process
 SRS is also the main output of the requirements specification activity
 All of the above
2. Which of these are non-technical requirements?
 Functional Requirements Non-Functional Requirements
 Developer's Requirements Data Requirements
3. Which of these does not belong to the qualities of operational requirements?
 Memory usage Portability
 Reusability Portability & Reusability
4. What is Software architecture?
 It is the structure or structure of systems It comprises of software components
 Relationship among components All of the mentioned
5. Activity diagram, use case diagram, collaboration diagram and sequence diagram are considered as types of _____.
 non-behavioral diagrams non structural diagrams
 structural diagrams behavioral diagrams
6. Which of the following is true?
 The input of architectural design process is SAD
 The output of architectural design process is SRS
 The input of architectural design process is SRS
 All of the above
7. What would happen if different organization were given same set of requirements?
 It will produce same architecture
 It will produce different architecture
 It may or may not produce same architecture
 None of the above
8. _____ can be defined as data that has been processed into a form that is meaningful to the recipient and is of real or perceive value in current or prospective decisions.
 System Information Technology Service
9. Which one is the time-line diagram of Software Architecture and Development?
 Activity diagram Sequence diagram
 System diagram Class diagram

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SECTION "B"

[6 Q × 4 = 24 marks]

Attempt *ANY SIX* questions.

1. Explain the Goals and Limitations of Software Architecture.
2. Explain the Basic Architecture Design Process along with several steps.
3. What is Use Case Diagram? Develop a Use Case Diagram of Super Market Prize Scheme.
4. What do you understand by Pipe and Filter Architecture? Explain about the Active and Passive Filter with an example.
5. Write short notes on:
 - a. Repository Style
 - b. Blackboard Architecture Style
6. Define seventh common review methodologies.
7. Develop a block diagram which shows the hierarchical architecture.

SECTION "C"

[2 Q. × 8 = 16 marks]

Attempt *ALL* questions.

8. What are the main principles of component-based design? Explain with an example.
9. What is Object Modeling? Explain about the Dynamic Modeling and Functional Modeling with their process.

