

SYIT/SEM IV/Reg/Software Engineering

Time: 2½ hrs.

Marks:75

Note:

1. All questions are compulsory with internal choice.
2. Draw neat diagrams wherever necessary.
3. Figures to the right indicate full marks.

- Q.1 Answer the following (any three) (15)**
- (a) Define software engineering. Explain the advantages for Software Engineering.
 - (b) Explain the Software Development Life Cycle (SDLC) with the help of a diagram.
 - (c) Write a short note on RAD model.
 - (d) What is the component of software process? Explain.
 - (e) Differentiate between functional and nonfunctional requirements?
 - (f) List and explain the principles of the agile Model?
- Q.2 Answer the following (any three) (15)**
- (a) Write short note on Context model.
 - (b) Define the critical system and explain the types of the critical system.
 - (c) Describe the system engineering process in detail.
 - (d) What is legacy system? Explain it with the help of a diagram.
 - (e) Explain the layered approach in socio-technical systems.
 - (f) State and explain the emergent system properties with example.
- Q.3 Answer the following (any three) (15)**
- (a) What is the User interface? Explain Principles of it.
 - (b) Explain software project management briefly.
 - (c) Define architectural design and explain the functions of architectural design.
 - (d) Write a short note on Risk Management Process.
 - (e) What is Quality assurance? What are the quality standards types? Explain.
 - (f) Write a short note on Risk Planning.
- Q.4 Answer the following (any three) (15)**
- (a) Explain software inspection in V & V model.
 - (b) Define Testing. Explain Black box and White box testing.
 - (c) Explain test case design with example.
 - (d) Describe automated testing.
 - (e) Explain the types of system testing.
 - (f) Explain four levels of testing.
- Q.5 Answer the following (any three) (15)**
- (a) Write a short note on COTS i.e. Commercial off the shelf.
 - (b) Write a short on Software as a service.
 - (c) What are the benefits and problems of reusing software?
 - (d) Explain Service oriented software engineering.
 - (e) Describe the classification of process.
 - (f) Explain the CMMI process.

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