

**ET602M1 - Software Engineering and Project Management**

P. Pages : 1

Time : Three Hours



**GUG/S/23/13932**

Max. Marks : 80

- Notes :
1. All questions are compulsory.
  2. Assume suitable data wherever necessary.
  3. Illustrate your answers wherever necessary with the help of neat sketches.

1. a) Explain the term "Software engineering - A layered technology". **8**  
b) Explain spiral model in detail. State drawbacks of this model. **8**  
**OR**
2. a) Write note on following scope of software engineering. **8**  
i) Historical aspects ii) Maintenance aspects  
b) Define the term software, Explain software characteristics. **8**
3. a) Explain capability maturity model (CMM) Integration. **8**  
b) What is SDLC (Software Development Life Cycle)? Explain Planning Phase in detail. **8**  
**OR**
4. a) Define Design phase of SDLC? Explain top down and bottom up strategies of Design phase. **8**  
b) Write note on software prototyping. **8**
5. a) Write note on- **8**  
i) Validation testing ii) System testing  
b) Explain coding principles and concepts. **8**  
**OR**
6. a) Explain unit testing & Integration testing? What is flow graph notation. **8**  
b) What are characteristics of testable software? **8**
7. a) Discuss the term Maintenance with overview and types of it. **8**  
b) What do you mean by risk with respect to software? Explain risk management. **8**  
**OR**
8. a) Explain project management concepts. **8**  
b) Write note on- **8**  
i) W5HH principle ii) Risk Projection.
9. Explain computer aided software engineering tools (CASE tools) **16**  
**OR**
10. a) What is Project scheduling? Explain basic concepts of relation between people and efforts. **8**  
b) Discuss the term "Software Configuration Management". **8**

\*\*\*\*\*