

Reg. No.

--	--	--	--	--	--	--	--	--	--	--	--	--

Question Paper Code : 27471

5 Years M.Sc. DEGREE EXAMINATION, MAY/JUNE 2016

Ninth Semester

Software Engineering

XSE 591 / 10677 SW 901 – SOFTWARE METRICS

(Regulations 2003/2010)

Time : Three Hours

Maximum : 100 Marks

Answer ALL questions.

PART – A (10 × 2 = 20 Marks)

1. State the scope of software metrics.
2. What are the benchmark values for software metrics for validation ?
3. Give the steps to carry out a formal experiment.
4. Model a sample failure report.
5. What are the types of structural measures ?
6. What are the four types of complexity ?
7. What is software quality ?
8. How do you assess the progress of software maintenance ?
9. “The software metrics program indirectly contributed to better staff motivation.”
Justify the statement.
10. Enlist the software metrics hierarchy.

PART – B (5 × 16 = 80 Marks)

11. (a) Explain the measurements in software engineering and discuss the scope of software metrics. (16)

OR

- (b) How are the metrics classified and discuss their measurement validation ? (16)

12. (a) Describe few empirical investigation techniques for data collection and how they are analyzed. (16)

OR

- (b) Explain any three statistical methods for data analysis and how they are compared. (16)

13. (a) Explain the use of software size measures in prediction models. (16)

OR

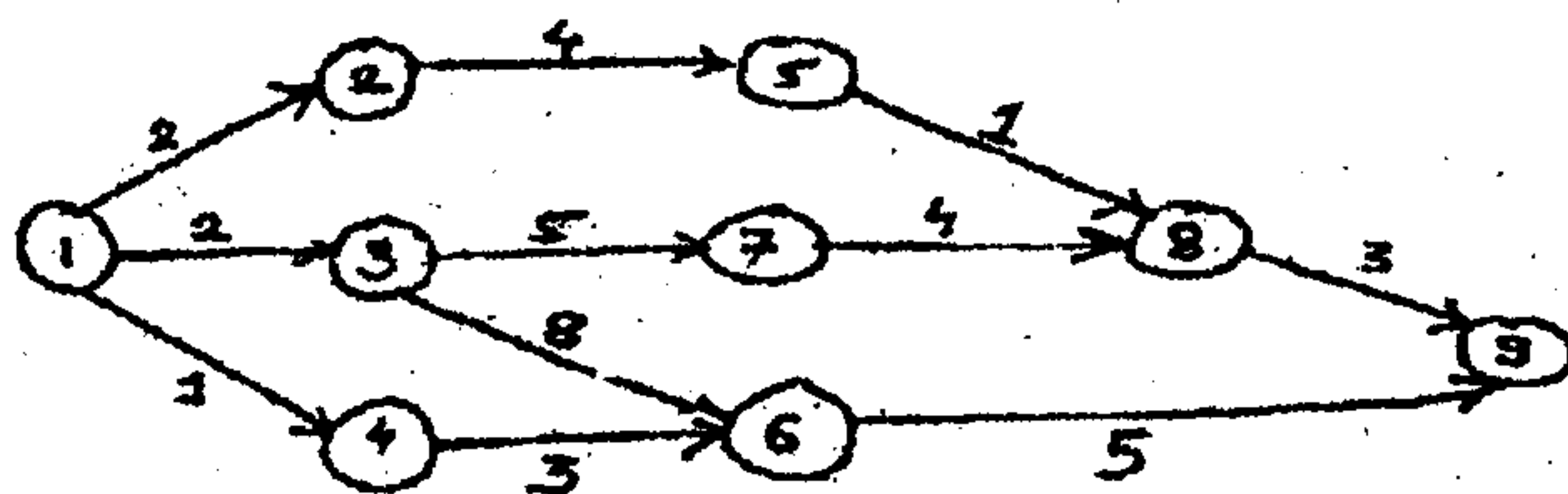
- (b) Explain the various types of structural measures and their computation. (16)

14. (a) Explain the McCall software quality model with a neat diagram. (16)

OR

- (b) Write the steps to measure the quality factor “Usability”. Explain with an example. (16)

15. (a) (i) Discuss the merits and demerits of Rayleigh model. (8)
 (ii) Find out the critical path and critical activities for a given network. (8)



OR

- (b) Write a short note on the following :

- (i) Reliability, growth model (8)
 (ii) Orthogonal defect classification. (8)