ANNA UNIVERSITY – 2006
B.E/B.TECH V SEMESTER DEGREE EXAMINATION
SOFTWARE QUALITY MANAGEMENT
(INFORMATION TECHNOLOGY)

ANSWER ALL QUESTIONS

PART A (10 * 2 = 20)

1. What do Software Quality and Software Quality Management mean?

2. Name any eight relationships between criteria, after Perry?

3. Define Integrity as given by Gilb's?

4. Classify reliability criteria as given by Dickson's?

5. What does Software Process Paradigm mean?

6. What are the phases in the Waterfall lifecycle model?

7. How does ISO define a Quality Management System?

8. Name the elements of QMS?

9. 'The increase in the role of CMM is attributed a number of factors', what are they?

10. What are the Capability levels within SPICE?

PART B (5 * 16 = 80)

11.i) Discuss the dilemma that Gavin's Product-Based view versus Value-Based view of quality, present software developers?

ii) 'A software metric is a measurable property which is an indicator of one or more of the quality criteria that we are seeking to measure' Discuss.

12.a) Discuss in detail about the work of Gilb's and his Quality attributes?
                    (OR)
12.b) Explain about contribution of Fenton in Measuring Quality?

13.a)i) How does Software Engineering impact upon quality?

ii) How widely have rigorous Software Engineering Practises have been adopted?
                    (OR)
13.b) Discuss the alternative approaches to Software Development?

14.a) Explain ISO 9000 Series?
                    (OR)
14.b) Explain about the historical perspective elements of QMS?

15.a) Describe some practices that can be said to promote a quality culture within the organization?
                    (OR)
15.b) What do you understand by the Software Capability Maturity Model (SW-CMM)? Name the five stages of the SW-CMM? What are the characteristics of each of the five stages of the SW-CMM?