

CORE COURSE – XIII (CC) - SOFTWARE QUALITY ASSURANCE

UNIT I

Introduction to software quality – Software modeling – Scope of the software quality program – Establishing quality goals – Purpose, quality of goals – SQA planning software – Productivity and documentation.

UNIT II

Software quality assurance plan – Purpose and Scope, Software quality assurance management – Organization – Quality tasks – Responsibilities – Documentation

UNIT III

Standards, Practices, Conventions and Metrics, Reviews and Audits – Management, Technical review – Software inspection process – Walk through process – Audit process – Test processes – ISO, cmm compatibility – Problem reporting and corrective action

UNIT IV

Tools, Techniques and methodologies, Code control, Media control, Supplier control, Records collection, Maintenance and retention, Training and risk management.

UNIT V

ISO 9000 model, cmm model, Comparisons, ISO 9000 weaknesses, cmm weaknesses, SPICE – Software process improvement and capability determination.

TEXT BOOK

1. Mordechai Ben – Meachem and Garry S.Marliss, “Software Quality – Producing Practical, Consistent Software”, International Thompson Computer Press, 1997.

REFERENCES

1. Watt. S. Humphrey, “Managing Software Process”, Addison – Wesley, 1998.
2. Philip.B.Crosby, “Quality is Free : The Art of making quality certain”, Mass Market, 1992.