**SRI RAMAKRISHNA MISSION VIDYALAYA**

**COLLEGE OF ARTS & SCIENCE- COIMBATORE - 641 020**

For candidates admitted from academic year 2013 – 2014onwards under New CBCS

**PART III Core Subject 12**

**SOFTWARE ENGINEERING**

**Year : III Semester : VI**

**Hours / Week : 5 Subject Code : 6CT14**

**Credits : 4**

**UNIT I**

Introduction — software engineering the software process software process models — the linear sequential model — the proto type model — the RAD model — evolutionary software process models — component based development — the formal methods model — fourth generation techniques.

**UNIT II**

Requirements analysis — requirements elicitation for software — analysis principles -- software prototyping specification — the software requirements — specification — specification review.

**UNIT III**

Software design and software engineering — the design process — design principles — design concepts — effective modular design — design heuristics for effective modularity — the design model — design documentation.

**UNIT IV**

Quality concepts. — the quality movement — software quality assurance — software reviews — formal technical reviews — formal approaches to SQA — statistical software quality assurance — software reliability — mistake proofing for software — the ISO 9000 quality standards — the SQA plan.

**UNIT V**

Software testing fundamentals — test case design - white box testing — basis path testing — control structure testing — black box testing — unit testing — Integration testing — validation testing — system testing.

**TEXT BOOK:**

1. Software Engineering a Practical Approach, Roger S Pressman, McGraw Hill International Edition, Fifth Edition, 2001.