

# ADVANCED SOFTWARE ENGINEERING- MCS-21

Theory Paper – 100 Marks

Sessional – 50 Marks

Introduction, Software life –cycle models, software requirements specification, formal requirement, specification-axiomatic and algebraic specification,

Function –oriented software design ,object oriented design, UML, coding and unit testing, data design architectural styles & pattern architectural design ,assessment of alternate ,architectural design ,mapping data flow into software architecture Modeling component level design, S\W reuse, Software quality & testing—SEI CMM and ISO-9001,software reliability and fault –tolerance, computer aided software engg.(CASE),

Web Engg.. Formal Methods ,clean room software Engg, component based development ,software reengg,.

**Laboratory** :Development of requirements specification ,Function oriented design using SA\SD, Object Oriented design using UML test case design implementation using JAVA and TESTING

## Text/ References

Presman R.S.,3<sup>rd</sup> Edition,Software engg.-A practitioners Approach ,Mc Graw,Hill,International,Eddition 1992

Jalote,P.1<sup>st</sup> Eddition ,2<sup>nd</sup> Eddition is Shortly due from Springer verlag.AN Integrated Approach to software engg,Narossa,1991

S/W Testing techniques ,boris,beizer,2ndEddition, Van Nostrand reinhold

Measuring S\w reuse –principles practices and economid models ,J.S.Poutin Ediition Wesley