**ASSIGNMENT -1 : SOFTWARE ENGINEERING & PROJECT MANAGEMENT**

**M.M. : 20**

**The Assignment has to submitted online and will be checked for plagiarism.**

**Q.1) Comment on the statement “The Spiral model is considered to be a Meta Model”. Justify with proper explanation. How does the risk factor affect the spiral model of software development?**

**Q.2) What is the advantage of using prototype software development model instead of waterfall model? Also explain the effect of defining a prototype on the overall cost of the software project?**

**Q.3) What is SRS? Discuss the important issues that a SRS must address.**

**Q.4) Under what situations do we USE the RAD Model? Explain RAD model with the aid of a diagram Also discuss the pros and cons of this model.**

**Q.5) A store is in the business of selling paints and hardware items. A number of reputed companies supply items to the store. New suppliers can also register with the store after providing necessary details. The customer can place the order with the shop telephonically. Or personally. In case items are not available customers are informed. The detail of every new customer is stored in the company’s database for future reference. Regular customers are offered discounts. Additionally details of daily transactions are also maintained. The suppliers from time to time also come up with attractive schemes for the dealers.**

**In case, scheme is attractive for a particular item, the store places order with the company. Details of past schemes are also maintained by the store. The details of each item i.e. item code, quantity available etc. is also maintained. Draw a level 1 DFD for the above requirement.**

**Q6. Consider a system for Office Automation. There are 4 major modules – Data Entry (0.6 KLOC), Data Update (0.6 KLOC), Query (0.8 KLOC) and Reports (1.0 KLOC). Assuming Product Complexity & Storage is High, Experience & Programmer Capability is Low. Respective ratings are 1.15, 1.06, 1.13 and 1.17 respectively.   
Compute the Effort and Development time using Intermediate COCOMO (Organic mode).**

**Q7. Draw a DFD for borrowing a book in a library which is explained below: “A borrower can borrow a book if it is available else he/she can reserve for the book if he/she so wishes. He/she can borrow a maximum of three books”.**

**Q8. A project size of 200 KLOC is to be developed. Software development team has average experience on similar type of projects. The project schedule is not very tight. Calculate the effort, development time, average staff size and productivity of the project.**