Program: Master of Computer Applications

Curriculum Scheme: CBCGS

Examination: MCA <2021> SEMESTER <I>

Course Code: MCA102 and Course Name: MCA

Time: 2 HRS Max. Marks: 80

Section I - MCQS (40 Marks) – 40 Minutes

Section II – Subjective (40 Marks) – 80 Minutes

**The timings**

**If the Examination Time is 10:00 am to 12:00 noon**

**Section I – 10:00 am – 10:40 am**

**Section II – 10:40 am – 12:00noon**

**If the Examination Time is 2:00 pm to 4:00 pm**

**Section I – 2 :00 pm – 2:40 pm**

**Section II – 2 :40 pm to 4:00 pm**

==============================================================================

**SECTION II**

**Q2 Solve any two out of three (10 Marks each)**

**a)** Define requirements engineering phase. Explain any two requirements elicitation techniques in detail.

**b)** Consider a software project with 5 tasks T1- T5. Duration of the 5 tasks in days are 15, 10, 12, 25 and 10 respectively. T2 and T4 can start when T1 is complete. T3 can start when T2 is complete. A T5 can start when both T3 and T4 are complete. Determine the critical path and calculate slack time for non critical activities.

**c)** Explain spiral model in detail.

**Q3 Solve any two out of three (10 Marks each)**

**a)** Explain any two techniques used for software quality control with suitable example.

**b)** Define concept of pair programming. Distinguish between incremental model and spiral model.

**c)** Consider the ERP application project with following features:

i. The application has 5 screens with 2 views with 9 tables.

ii. The application has 3 reports of 3 sections with 9 tables.

ii. The application has 3 3GL components.

There is 30% reuse of object points.

The developers’ experience and capability is HIGH in similar environment. Calculate the object point count, NOP, effort to develop such project. (PROD=25)