OR

(b) Explain all the levels of COCOMO model. Assume that the size of an organic software product has been estimated to 32,000 lines of code. Determine the effort required to developed the software product and the nominal development time. (CO2)

5. (a) Explain the purpose of SRS. Also explain the functional and non-functional requirements of software. List few other documents available in different phases of SDLC. (CO2)

OR

(b) Difference between DFD and flowchart. Draw the DFD for any shopping website/application upto level 1. (CO2)

H Roll No. .....

TMC–206

M. C. A. (SECOND SEMESTER)
MID SEMESTER
EXAMINATION, 2021-22

SOFTWARE ENGINEERING AND PROJECT MANAGEMENT

Time : 1½ Hours

Maximum Marks : 50

Note : (i) Answer all the questions by choosing any ***one*** of the sub-questions.

(ii) Each sub-question carries 10 marks.

1. (a) Define Software Engineering. "Software does not wear out." Justify. What are the symptoms of software crisis ? What are the possible solutions to it ? (CO1)

OR

(b) Compare the iterative enhancement model and evolutionary process model. (CO1)

P. T. O.

2. (a) Draw and explain spiral model in detail. List out all the advantages and disadvantages of using this model in. (CO1)

OR

(b) Compute the function point value for a project with the following information domain characteristics : (CO1)

Functional Units	Weighting factors		
	Low	Average	High
External Inputs (EI)	3	4	6
External Output (EO)	4	5	7
External Inquiries (EI)	3	4	6
External Logical Files (ILF)	7	10	15
External Interface Files (EIF)	5	7	10

Number of user inputs = 30
Number of user output = 42
Number of user enquiries = 8
Number of files = 7
Number of external interfaces = 6
Assume that all complexity adjustment values are moderate calculate it for high and average.

3. (a) Write short notes on CMM, ISO, FEASIBILITY, MAINTENANCE, Six sigma. (CO1 & CO2)

OR

(b) The size of a software product to be developed has been estimated to be 22000 LOC. Predict the manpower cost (effort) by Walston-Felix Model and SEL model. (CO1 & CO2)

4. (a) Explain the two models for size estimation used by the organizations. Also explain reliability, non-availability and availability of software. (CO2)