(3 Hours) Total Marks: 80M

Please note: 1. Q.1 is compulsory.
2. Attempt any 3 out of remaining 5 questions.
3. Use of calculator is allowed.

Q.1	a	Consider a software project with 5 tasks T1- T5. Duration of the 5 tasks in days are 10, 10, 30, 40, 90 respectively. Task T2, T3 and T4 can start after T1, T5 can start after T2, T3 and T4. Draw the critical path and calculate slack time for non-critical activities.	10
	b	Define requirements engineering. Explain requirement elicitation techniques.	10
Q.2	a	Define degree of rigor. Explain how degree of rigor is calculated based on TSS.	10
	b	Explain project selection decision procedure. Also define project charter.	10
Q.3	a	Explain RAD model in detail. Compare it with incremental model.	10
	b	Explain the procedure of project procurement.	10
Q.4	a	Assume that size of an organic software product has been estimated to be 28,000 LOC. Determine the efforts required to develop software product and development time.(Assume the constants: a1= 2.4, a2=1.05, b1=2.5 and b2 = 0.38)	10
	b	Define staffing level estimation. Explain Rayleigh Curve.	10
Q.5	a	Define software quality. Explain how FTR helps in software quality assurance.	10
	b	Define project. Explain project phases with project life cycle.	10
Q.6	a	An application has the following: 15 low external inputs, 16 high external outputs, 20 low internal logical files, 15 high external interface files, 10 average external inquiries, and a value of complexity adjustment factor of 1.10. What are the unadjusted and adjusted function point counts? Assume following constants: low EI=3, high EO = 7, low ILF = 7, high EIF = 10.	10
	b	Write a short note on (any two): i. Prototyping model ii. Reliability metrics iii. Tools and techniques for quality control	10
