B.E.(with Credits)-Regular-Semester 2012-Information Technology Sem V IT504 - Software Engineering

P. Pages : 2 Time : Three Hours		2 ree Hours	GUG/W	GUG/W/16/3777 Max. Marks : 80	
	Note	es: 1. 2. 3. 4.	All questions carry marks as indicated. Due credit will be given to neatness and adequate dimensions. Assume suitable data wherever necessary. Illustrate your answers wherever necessary with the help of neat sketches.		
1.	a)	Explain	Waterfall model with neat diagram write its drawbacks.	8	
	b)	Explain	the common process framework with help of diagram. OR	8	
2.	a)	Explain	with diagram the spiral model an evolutionary software process model.	8	
	b)	What do	o you understand by Generic View of Software Engineering. Comment.	8	
3.	a)	What an	re the attributes of effective software's Metrics. Explain each in detail.	8	
	b)	Explain object o	class oriented metrics in detail. Also explain six class based design metrics for priented systems. OR	or 8	
4.	a)	Conside for Mec 1) Us 2) Tw 3) Th 4) Da 5) Cc 6) Pe 7) De 7) De 7) De 7) De 7) De 7) Th 16 Th 23 Th 28 A sys Fin	er a software package to be developed for computer aided design (CAD) applic chanical components. The major software functions are identified as follows. See interface and control facilities. vo-dimensional Geometric Analysis. uree-dimensional Geometric Analysis. atabase Management. omputer Graphics display facilities. ripheral control. esign Analysis Modules. ne optimistic values of LOC for the above function are: 00, 3500, 4600, 2200, 3410, 1535 and 6165 respectively. ne most likely values of LOC for the above function are: 50, 5400, 6900, 3375, 5015, 2105 and 8600 respectively. ne passimestic values of LOC for the above function are: 00, 6700, 8600, 4400, 6230, 2645 and 9835 respectively. review of historical data indicates that the organizational average productivit stem of this type is 620 LOC / PM and Labour Rate of \$8000 per month nd:-	ation y for	
		i)	Estimated LOC	4	
		iii)) Estimated Efforts	3 1	

	b)	For the above software package for a CAD application for mechanical components the information domain values are:		
		no: of inputs, no: of outputs,		
		no: of enquires, no: of files and		
		no: of external interface The optimistic values for information domain values are		
		20. 12. 16. 4. 8 and 2 respectively.		
		The most likely values for information domain are 20, 15, 22, 4 and 2 respectively.		
		The passimistic values for the information domain are 30, 22, 28, 5 and 3 respectively. The complexity weighting factor is assumed to be average for values are 4, 5, 4, 10 and 7 respectively.		
		The complexity adjustment factor value is 1.17.		
		Historical data normalized using FP indicates the organizational productivity for system of		
		this type is 6.5FF/month and Labour rate of \$8000 per month. Find:-		
		1) Estimated FP.	3	
		2) Estimated Project Cost.	3	
		3) Estimated Effort.	2	
5		Write short note on	16	
5.		i) Data objects.	10	
		ii) Data attributes.		
		iii) Relationships.		
		iv) Data Design Elements. OR		
6.	a)	What are differents points of views can be used to describe the requirement model ? Explain each in detail.		
	h)	Write short note on:	8	
	0)	1) Association.	U	
		2) Dependencies.		
7		Write short note on:	16	
7.		i) Ouality control.	10	
		ii) Quality Assurance.		
		iii) Inspection.		
		iv) Walk through.		
Q		OR Exploin structure coding Technique in detail	16	
0.		Explain structure coding Technique in detail.	10	
9.		Explain RMMM (Risk Mitigation, Monitoring and management) plan in detail.	16	
		OR		
10.		Write short note on:	16	
		i) Known Risk.		
		ii) Predictable Risk.		
		iv) Cost Risk		
		ivj Cost Mok.		
