Hall Ticket Number :						P-17
Code: 7P2B34						K-17

M.C.A. III Semester Supplementary Examinations April/May 2019

Web Component Development with J2EE Max. Marks: 60 Time: 3 Hours Answer all five units by choosing one question from each unit ($5 \times 12 = 60$ Marks) **UNIT-I** 1. a) Describe the Multi-tier architecture of J2EE. 6M b) Write short note on various types of JDBC drivers. 6M OR Explain the mechanism for associating the JDBC/ODBC connection. 6M 2. a) Discuss the procedure for inserting data in to the table with an example. 6M b) UNIT-II 3. a) With a neat sketch explain the life cycle of Servlet. 6M Explain the procedure for updating data in a table with an example. 6M OR a) Describe the mechanism for joining tables in SQL. 6M b) What is Servlet? Write short notes on Servlet API. 6M **UNIT-III** 5. a) Discuss the concept of Servlet Request Dispatcher. 6M b) Write short note on Single Thread Model. 6M 6. a) Explain the concept of Multi-tier Applications using Database Connectivity. 6M b) Write short note on Filter API. 6M UNIT-IV 7. a) Write about Custom Tags in JSP with an example. 6M b) Explain how to declare variables and methods in JSP. 6M OR 8. Explain the procedure for developing JSP application with an example. 6M Describe Standard Action in JSP. 6M b) UNIT-V 9. a) What is java Bean? Write the advantages of Java Beans. 6M b) Write short notes on Event Descriptor with an example. 6M OR Explain Java Beans API. 10. a) 6M b) Write procedure for accessing java Beans using JSP. 6M

Hall Ticket Number :						R-17

Code: 7P2B35

M.C.A. III Semester Supplementary Examinations April/May 2019

Design & Analysis of Algorithms

Max. Marks: 60 Time: 3 Hours Answer all five units by choosing one question from each unit ($5 \times 12 = 60$ Marks)

UNIT-I

- 1. a) Explain briefly about the Algorithm design and analysis process. 6M
 - b) Describe Recurrence equations with a suitable example.

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- 2. a) How to prove the Algorithm's Correctness? Explain in detail. 6M
 - b) Discuss in detail about the different asymptotic notations with suitable examples. 6M

UNIT-II

3. Discuss about the Binary tree traversal using divide and conquer technique?

OR

- 4. a) Explain divide and conquer approach and discuss it with the Merge sort? 6M
 - b) Write about quick sort method with example.

5. a) Give brief description about the All pairs shortest paths problem. 6M

UNIT-III

b) Write short notes on the general method of the greedy technique.

OR

6. Explain in detail about the Bellman and Ford algorithm to compute the shortest paths with a suitable example.

UNIT-IV

- 7. a) Give a brief note on general method of Backtracking.
 - b) Explain in detail about the Hamiltonian Cycles.

OR

8. Explain the concept of Branch and Bound technique with a suitable example? 12M

UNIT-V

OR

- 9. a) Explain how the Connected Components of a graph can be obtained.
 - b) Write short notes on COOKS Theorem

6M

6M

6M

6M

6M

12M

6M

6M

10. What is a NP hard problem? Explain.

12M

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Co	de:	7P2B31		<u>I</u>	1		1					<u>I</u>	I	R	-17
	M.C.A. III Semester Supplementary Examinations April/May 2019														
	Database Management Systems														
	-	Marks: 60 er <i>all five</i> units k	oy ch	1008	sing	one			n fror	n ed	ach	unit			3 Hours Marks)
							****	**** NIT-							
1.		Explain the Dat	abas	e Ard	chite	cture		11111	1						12M
			0.10 0.0					R							
2.	a)	Write about Dat	ta Mo	odels	?										6M
	b)	Illustrate the Vie													6M
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							U	NIT-							
3.		Discuss about t	he D	oma	in Re	elatio									12M
							C	R							
4.		Describe the di	iffere	nce	betw	een	Dom	ain F	Relati	ional	Cal	culus	and Re	elation	al
		Algebra with an	Exa	mple	?										12M
								NIT-I							
5.		Explain the four	r Ope	eratio	ns E	XCE			XIST	S, S	OME	?			12M
							_	R							
6.	a)	Write about the	Norr	naliz	ation	and	FD?)							6M
	b)	Describe the 5N	NF?												6M
_	,	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\			OID.	` -		NIT–I	V						014
7.	a)	What is the Cor	•			•		20							6M
	b)	Write about Re	covei	ry Sy	stem	ın L									6M
			_					R			_				
8		How the Lock N	/lana	ger li	mple	men	ts Lo	ck ar	id Ur	nlock	Req	uest	s? Expla	nık	12M
9.	a)	What are the Po	orfor	manr	na im	nlico		NIT-		truct	ure?				6M
Э.	а) b)	Discuss the Co				•	110118	5 OI D	ion C	, ii ucl	ui C !				6M
	D)	DISCUSS THE CO	повр	. Oi I		•	_	R							OIVI
10.	a)	Compare Linea	r Had	shino	ı and	Fyte			ashir	าต?					6M
10.	b)	Describe what i			•				aoriii	·9 ·					6M

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Hal	I Tic	ket Number :														D 17	,
Cod	e: 7	P2B36								_						R-17	
		M.C.A. III S	eme	este							ninc	ation	ns M	1ay	20	19	
		Marks: 60 er all five units	by c	hoc		•			on fro		each	n uni	† (5	x 1:			Hours arks)
								UNIT	Γ – Ι								
1	 a) Distinguish between client server and peer to peer models of distributed systems. 									outed	6M						
	b)	, ,												6M			
								OR									
2	a)	With a neat sk users, process						ices 1	that a	an op	erati	ng sy	yster	n pr	ovid	les to	6M
	b)	What are the interface for m			_				_		usii	ng s	ame	sys	stem	n call	6M
					_		<u> </u>	UNIT									
3	a)	Consider the f burst time) wit		lenç	gth o	f CP	J bui	rst in	millis	seco	nds.	roce	ss, a	ırriva	al tim	ne,	
		Using preemp			non	-	-					•					GN4
	b)	(i) Draw Gantt How the proce			rasai	` ,	Calcu			•		•					6M 6M
	D)	riow the proce	33 13	тері	CSCI	iteu		OR	0033	COIN	101 0	IOCK:					Olvi
4	a)	What is critica	l sect	ion i	probl	em?			plain	Pet	ersoı	า'ร รด	olutio	on.			6M
	b)												6M				
5	a)	What is the usage of resource allocation graph? Draw an example resource															
	,	allocation gra	-						•					-			6M
	b)	Explain the tw	o solı	ution	ns of	reco	very	from	dead	dlock							6M
								OR									
6.		Execute Bank and Resource Max [2 0 1 2, safe sequence	s A to 2 7 t	D . 5 0,	Alloo 23	cation 5 6,	n [2 (0 7) 1 2, 5 2 ,	10	0 0, 5 6]	13 Ava	5 4, ilable	0 6 2 4 <u>=</u>	3 2, 2 1	, 0 (] fin	0 1 4] d the	
		granted?								•							12M
								JNIT									
7.	a)	With a neat dia	agran	n ex	plain	how	seg	ment	ation	wor	ks?						6M
	b)	What is a direct	ctory	? Ex	plain	in d			t imp	leme	entati	on o	f dire	ecto	ry.		6M
•	,	14/1 (' D				۰ -		OR									
8.	a)	What is Bela algorithm for t 4, 3, 2, 3, 4, 7.	he giv	ven	refer	ence	strir	ng 2,	3, 4,		•	•	_	•			8M
	b)	Discuss in det	ail ab	out	diffe	rent f	ile a	cces	s met	thods	S.						4M
							U	NIT-\	/								
9.	a)	Explain the fla	ws in	one	e-way	enc	rypti	on of	pass	swor	d stra	ategy	/ .				6M
	b)	Illustrate vario	us pa	ISSW	ord s	selec	tion	strate	egies								6M
								OR									
10.	a)	Explain how a					-			netw	ork.						6M
	b)	Compare prog	ıram t	threa	ats a	nd sy	/sten	n thre	eats.								6M