Hall	Ticket Number :]		
ode:	: 1G143												R-11 / R-13	
					-			-				is N	1ay 2018	
		Des	ign			-			-	rithı	ms			
lax.	Marks: 70			·									Time: 3 Hour	S
	All	Que				,	•			arks (each)		
a)	Elaborate on asy	mpto	otic n	otatio	ons v	vith e	exam	ples.						7M
b)	What is weighting	g rule	€? Di	scus	s abo	out th	ne un	ion a	algori	thm	usiną	g we	eighting rule.	7M
a)	•				•	•			ne la	rges	t eler	nen	t in the given	7M
b)	Explain merge so	ort pr	oble	m us	ing d	ivide	and	cond	quer					7M
a)	Demonstrate with	h an	exan	nple	Prim	's an	d Kru	ıskal	's alg	gorith	nm			7M
b)												0)		7M
a)			•			•				gree	edy r	netl	hod. Justify the	7M
b)	•	-	•	•			ould	be s	olved	d usii	ng dy	/nar	nic programming	7M
a)								-		. Ho	w the	8 8	queens' problem	7M
b)														7M
a)	•			•			tion	poin	ts ai	nd te	o co	nstr	ruct biconnected	7M
b)	Explain in detail	DFS	grap	h tra	versa	al.								7M
a)	•	•		as te	o hov	w 0/1	kna	psac	k pr	obler	n is :	solv	ved using branch	7M
b)	Compare and co	ntras	t LC	-BB a	and F	FIFO	BB							7M
a)	Write and explain	n Coo	ok's t	theor	em.									7M
b)														7M
	 a) b) 	Aax. Marks: 70 All a) Elaborate on asy b) What is weighting a) Write the pseudo array of N number b) Explain merge so a) Demonstrate with b) $\begin{cases} \text{Sem: stra_iven fills} \\ \text{Solve he g} \\ n = 3 m = 20 (p) \\ n = 3 m $	bde: 1G143 II B.Tech. II Seme Des Aax. Marks: 70 All Que: a) Elaborate on asympto b) What is weighting rule a) Write the pseudo cod array of N numbers us b) Explain merge sort pr a) Demonstrate with an b) $\sum_{solve the g} ven_{k ar}^{itt ar}$ n = 3 m = 20 (p1, p2) a) Dynamic programming statement. Explain all b) Explain how travelling method. Explain with a) Write the control absic could be solved using b) Let $a the (5,7,10,12,15)$ sum $i = e$ quivalent to m a) Give an algorithm the components. Explain b) Explain in detail DFS a) Explain with an algor and bound technique. b) Compare and contrast a) Write and explain Cod	 a) Elaborate on asymptotic m b) What is weighting rule? Di a) Write the pseudo code for array of N numbers using b) Explain merge sort problet a) Demonstrate with an exam b) Serve the given fn: 35 ck n = 3 m = 20 (p1, p2, p3) a) Dynamic programming i statement. Explain all pair b) Explain how travelling per method. Explain with sam a) Write the control abstractic could be solved using bac b) Let a be {5,7,10,12,15,18,2 sum is equivalent to m. Dr a) Give an algorithm to id components. Explain with b) Explain in detail DFS grap a) Explain with an algorithm and bound technique. b) Compare and contrast LC a) Write and explain Cook's filling and contrast LC 	 a) Elaborate on asymptotic notation by What is weighting rule? Discus a) Elaborate on asymptotic notation by What is weighting rule? Discus a) Write the pseudo code for finding array of N numbers using divid by Explain merge sort problem us a) Demonstrate with an example of the gradient of the gra	 a) Elaborate on asymptotic notations with a rray of N numbers using divide and b explain merge sort problem using divide and b explain all pairs shortest for the g and and b explain all pairs shortest b explain how travelling person problem method. Explain with sample graph. a) Write the control abstraction for bac could be solved using backtracking b Let divide and to m. Draw the point of the explain with an example b explain in detail DFS graph traversation. a) Explain with an algorithm as to how and bound technique. b) Compare and contrast LC-BB and F a) Write and explain Cook's theorem. 	 a) Elaborate on asymptotic notations with e poeting and analy (Common flax. Marks: 70 Answer any fin All Questions carry equal ****** a) Elaborate on asymptotic notations with e b) What is weighting rule? Discuss about the b) What is weighting rule? Discuss about the b) What is weighting rule? Discuss about the b) Explain merge sort problem using divide and corr b) Explain merge sort problem using divide and corr b) Explain merge sort problem using divide and corr b) Explain merge sort problem using divide and corr b) Explain merge sort problem using divide and corr b) Explain merge sort problem using divide and corr b) Explain merge sort problem using divide and corr b) Explain merge sort problem using in = 3 m = 20 (p1, p2, p3) = (25,24,15) (2000) a) Dynamic programming is best comp statement. Explain all pairs shortest path b) Explain how travelling person problem c method. Explain with sample graph. a) Write the control abstraction for backtra could be solved using backtracking method. Explain with sample graph. a) Write the control abstraction for backtra could be solved using backtracking method. Explain with an example. b) Let a be {5,7,10,12,15,18,20} and m=35 sum and bound technique. b) Explain in detail DFS graph traversal. a) Explain with an algorithm as to how 0/1 and bound technique. b) Compare and contrast LC-BB and FIFO a) Write and explain Cook's theorem. 	 a) Elaborate on asymptotic notations with example Prim's and Krut sing of the gravitation of the gr	 a) Elaborate on asymptotic notations with examples. b) What is weighting rule? Discuss about the union a a) Elaborate on asymptotic notations with examples. b) What is weighting rule? Discuss about the union a a) Write the pseudo code for finding the position of the array of N numbers using divide and conquer. b) Explain merge sort problem using divide and conquer. b) Explain merge sort problem using divide and conquer. c) Explain merge sort problem using divide and conquer. a) Demonstrate with an example Prim's and Kruskal c) Compare int an example Prim's and Kruskal c) Compare int an example Prim's and Kruskal c) Compare and contrast LC-BB and FIFO BB a) Write and explain Cook's theorem. 	 a) Unite the pseudo code for finding the position of the la array of N numbers using divide and conquer. b) What is weighting rule? Discuss about the union algorit array of N numbers using divide and conquer. c) Explain merge sort problem using divide and conquer. a) Demonstrate with an example Prim's and Kruskal's algorithm array of N numbers using divide and conquer. b) Vite the pseudo code for finding the position of the la array of N numbers using divide and conquer. b) Explain merge sort problem using divide and conquer and the statement. Explain array are satisfied at the statement. Explain all pairs shortest path problem. b) Explain how travelling person problem could be solved method. Explain with sample graph. a) Write the control abstraction for backtracking method? Discuss. b) Let a base {5,7,10,12,15,18,20} and m=35. Find all the sum to dentify articulation points are components. Explain with an example. b) Explain in detail DFS graph traversal. a) Explain with an algorithm as to how 0/1 knapsack pre and bound technique. b) Compare and contrast LC-BB and FIFO BB a) Write and explain Cook's theorem. 	 a) Derign and Analysis of Algorithm (Common to CSE & IT) Answer any five questions All Questions carry equal marks (14 Marks of the second second	 a) Write and explain for the greedy network of the greedy network. a) Dynamic programming is best compared to the greedy network. b) Write and explain for the control abstraction for backtracking method. Explain with an example graph. a) Write and explain Cook's theorem. b) Write and explain Cook's theorem. 	 a) Units the control abstraction for backtracking method. Explain with sample graph. a) Write the control abstraction for backtracking method. How the 8 could be solved using backtracking method. Explain with an example graph. a) Write and explain Cook's theorem. b) What is weighting the prime to the the top set of top se	 R-11 / R-13 R-11 / R-13 II B.Tech. II Semester Supplementary Examinations May 2018 Design and Analysis of Algorithms (Common to CSE & IT) Time: 3 Hours Answer any five questions All Questions carry equal marks (14 Marks each) Time: 3 Hours Answer any five questions All Questions carry equal marks (14 Marks each) Time: 3 Hours Answer any five questions All Questions carry equal marks (14 Marks each) Time: 3 Hours Answer any five questions All Questions carry equal marks (14 Marks each) Time: 3 Hours Time: 3 Hours Answer any five questions All Questions carry equal marks (14 Marks each) Write the pseudo code for finding the position of the largest element in the given array of N numbers using divide and conquer Explain merge sort problem using divide and conquer Demonstrate with an example Prim's and Kruskal's algorithm Communic programming is best compared to the greedy method. Justify the statement. Explain all pairs shortest path problem. Dynamic programming is best compared to the greedy method. Justify the statement. Explain all pairs shortest path problem. Explain how travelling person problem could be solved using dynamic programming method. Explain with sample graph. Write the control abstraction for backtracking method? Discuss. Urite the control abstraction for backtracking method. How the 8 queens' problem could be solved using backtracking method? Discuss. Let ⁶/₂ ^{6/1}/₂, (5,7,10,12,15,18,20) and m=35. Find all the possible subsets of w whose sum^{1/4} – quivalent to m. Draw the portion of state space tree for this problem. Give an algorithm to identify articulation points

Hall	Tick	et Number :												
Code	: 1G	145								J				R-11 / R-13
		B.Tech. II S	eme	este	r Su	pple	eme	enta	iry E	xam	ninc	atior	ns N	1ay 2018
		Obje	ct C	Drie			-		-	-	rou	gh .	Jav	a
Max.	Mc	ırks: 70			(CC)	mm	ion t	0 C:	SE &	11)				Time: 3 Hours
							•		luest					
		All G	QUes	tions	s cai		qua *****		rks (14 M	ark	s eo	ich)	
1.	a)	Explain abou	ıt typ	e co	nvers	sion a	and c	castir	ng in	java				
	b)	•	•					•	e of	the	follo	owing	g me	ethods of the
		following me setChatAt(),			-			ass.						
			appe		, gou	onar	0()							
2.					•									
	b)	Explain abou	it abs	strac	t clas	s wi	th an	exa	mple	prog	ram	•		
3.	a)	How can we	achi	eve r	nultip	ole in	herit	ance	s in j	ava?	Wr	ite ex	kamp	ole program.
	b)	Explain the in	mpor	tanc	e of f	inal i	in jav	va pro	ograr	nmin	g.			
4.	a)	Distinguish b	etwe	en c	lasse	es an	nd int	erfac	e.					
	b)	Why we nee								in.				
5.	<i>a)</i>	What is an e	vcon	tion?	P Diet	inqui	ich h	otwo	on hi	uilt _	in a	ndu	sor _	- defined
0.	a)	exceptions.	лсер		DIS	ingu	1311 0	CIWC		ant	mα	nu u	501	defined
	b)	Discuss abo	ut the	e thre	ead p	oriorit	ies.							
6.	a)	What is appl	et? E	xpla	in life	е сус	le of	an a	pplet					
	b)	Explain boar	rder	and	grid	layo	ut m	anag	ger ty	/pes	with	n the	hel	p of example
		programs.												
7.		Explain the	steps	s inv	olved	d in	creat	ting .	JChe	ckBc)X, С	IRad	ioBu	itton, JButton,
		JLabel.												
8.		Write short no	otes	on th	e foll	owing	g:							
		(a) Datagran (b) URL coni		on.										
		(c) Java.net												
							**	*						

Hall Ti	icket Number :	
Code:	1GC42 R-11/R-1	3
	II B.Tech. II Semester Supplementary Examinations May 2018	
	Probability and Statistics	
	(Common to CE, ME & IT)	
Max. N	Marks: 70 Time: 3 Ho	Urs
	Answer any five questions All Questions carry equal Marks (14 Marks each)	

1. a)		
	Size of item: 6 7 8 9 10 11 12	
	Frequency: 3 6 9 13 8 5 4	7M
b)	Find the Correlation Coefficient between industrial production and export using the following data and comment on the result.	
	Production (in crore tons) 55 56 58 59 60 60 62	
	Export (in crore tons) 35 38 38 39 44 43 45	7M
2. a)		
,	What is the probability of getting two aces if	
	i) The first card is replaced before the second card is drawn;	
	ii) The first card is not replaced before the second card is drawn?	6M
,	State and Prove Baye's theorem.	8M
3. a)	A discrete random variable X has the following probability distribution given below:	
	Value of X 0 1 2 3 4 5 6 7	
	$P(X = x) 0 k 2k 2k 3k k^2 2k^2 7k^2 + k$	
	(i) Find the value of 'k'. (ii) Find $P(X < 6)$, $P(0 < X < 4)$ and $P(X \ge 6)$.	7M
b)	Find the value of k and the distribution function $F(x)$ given the probability	
	density function of a random variable X as: $f(x) = \frac{k}{x^2 + 1}$, $-\infty < x < \infty$.	
	density function of a fandom variable X as: $f(x) = \frac{1}{x^2 + 1}$, $-\infty < x < \infty$.	7M
4. a)	Find the mean and variance for the Poisson distribution.	7M
b)		
	candidates. The average score is 42 and the standard deviation of score is 24. Assuming normal distribution for the scores, find	
	(i) The number of candidates whose scores exceed 60;	
	(ii) The number of candidates whose scores lie between 30 and 60.	7M
5.	A population consists of five numbers 2, 3, 6, 8 and 11. Consider all possible	
	samples of size 2 that can be drawn with replacement from this population. Find	
	a) The mean of the population.	
	b) The standard deviation of the population.	
	c) The mean of the sampling distribution of means and	
	 d) The standard deviation of the sampling distribution of means 	14M

- 6. a) Explain the following:
 - i) Point estimation
 - ii) Interval estimation
 - b) Determine a 95% confidence interval for the mean of a normal distribution with variance $\uparrow^2 = 0.25$, using a sample of n = 100 values with mean $\overline{x} = 212.3$.
- 7. a) Two samples of sodium vapor bulbs were tested for length of life and the following results were returned :

	Size	Sample mean	Sample S.D.		
Type I	8	1234 hrs	36 hrs		
Type II	7	1036 hrs	40 hrs		

Is the difference in the means significant to generalize that type I is superior to type II regarding length of life? Use a 0.05 level of significance.

- b) In a random sample of 100 tube lights produced by company A, the mean life time of tube light is 1190 hours with standard deviation of 90 hours. Also in a random sample of 75 tube lights from company B the mean life time is 1230 hours with standard deviation of 120 hours. Is there a difference between the mean lifetimes of the two brands of tube lights at a significance level of 0.05?
- 8. a) Transceivers provide wireless communication among electronic components of consumer products. Responding to a need for a fast, low-cost test of Bluetooth-capable transceivers, engineers developed a product test at the water level. In one set of trails with 60 devices selected from different wafer lots, 48 devices passed. Test the null hypothesis p = 0.70 against the alternative hypothesis p > 0.70 at the 0.95 level of significance.
 - b) To determine whether there really is a relationship between an employee's performances in the company's training program and his or her ultimate success in the job, the company takes a sample of 400 cases from its very extensive files and obtains the results shown in the following table:

Performance in training program									
		Below Average	Average	Above Average	Total				
	Poor	23	60	29	112				
Success in job (employer's rating)	Average	28	79	60	167				
(employer s rating)	Very good	9	49	63	121				
	Total	60	188	152	400				

Use the 0.01 level of significance to test the null hypothesis that performance in the training program and success in the job are independent.

8M

8M

6M

6M

7M