SHRI VILEPARLE KELAVANI MANDAL'S
DWARKADAS J. SANGHVI COLLEGE OF ENGINEERING
(Autonomous College Affiliated to the University of Mumbai)
NAAC ACCREDITED with "A" GRADE (CGPA : 3.18)

Department of Computer Engineering
Academic Year 2021-2022
Term Test – I

Course Name: Software Engineering
Class: TE (A & B)
Date: 28/05/2022
Maximum Marks: 25

Course Code: DJ19CEC601
Sem: VI
Time: 09:00 am – 10:00 am

Instructions:
1. Please solve questions in order with clear and dark ink pens
2. Draw figures wherever required

Q. No	Questions	CO	Marks
1a	Draw a neat diagram of Docker Architecture.	6	02
1b	Explain top 3 high level Cohesion types with suitable example	2	06
	OR		
1b	Explain the different types of architectural styles.	2	06
2	Explain Risk Management with suitable diagram	4	08
	OR		
2	Explain change control with suitable diagram.	4	08

3a	For the following unit code, draw flow graph, identify independent paths and compute the cyclomatic complexity by all three formulas.
	
	`IF A = 10 THEN`
	`  IF B > C THEN`
	`  A = B`
	`  ELSE`
	`  A = C`
	`  ENDIF`
	`ENDIF`
	`Print A`
	`Print B`
	`Print C`
		5	05

3b	Explain the top down approach in integration testing.	5	04
	OR		
3b	Explain orthogonal array testing.	5	04

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1024

Department of Computer Engineering

Academic Year 2022-2023

Continuous Assessment: Term Test – II

T.E. (Semester VI) DIV-B

Course: Information Security (DCSC-604)

Duration: 1 hour **Maximum Marks: 25**

Instructions:

1. Draw neat labelled diagrams wherever necessary.
2. Read the questions carefully. Question 1 is compulsory. Solve any three question out of five (Q2 to Q6) Comp

Q.No.	Question	Max. Marks
1	Using Knapsack problem, a) Generate public key from private key {2,3,6,12,24} b) Convert following data into cipher text. 1) 1001 2) 1100 c) Convert Cipher Text into plain text. **OR** a) Discuss in details how man in middle attack is launch on Diffie Hellman techniques. b) Alice and Bob have agreed to use prime no n=17 and q (alpha)=3 1) If Alice choose random value if x=4 , what value Alice send to Bob 2) If Alice received the value 11 from Bob what is value of shared secret key.	[10]
2.	Explain properties of Hashing Techniques? Also discussed significance of chaining variable in Hashing Techniques.	[05]
3.	Explain in details how message digest is generated using SHA -512 technique.	[05]
4.	Explain significance of digital signature? Discuss the complete process digital signature generation and verification.	[05]
5.	Explain in details how digital certificate is created .	[05]
6.	Explain SYN Flooding attack along with its three mitigation techniques.	[05]

---------- All the Best ----------

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Department of Computer Engineering
Academic Year 2021-2022
Term Test – II

Course Name: Human Machine Interaction
Class: TE B
Date: 26/05/2022
Maximum Marks: 25

Course Code: DJ19CEEC6023
Semester: VI
Time: 09:00 – 10:00 AM

Instructions:

1. Please solve questions in order with clear and dark ink pens
2. Draw figures wherever required

Q. No	Questions	Bloom's Level	CO mapped	Max. Marks
1	What is goal directed design?	Understand	1	05
2	Differentiate between Implementation model vs. mental model.	Analyse	2	05
3	Write short note on statistical graphics	Remember	3	05
4	Explain how colours play a major role in human interface design.	Analyse	4	05
5	Design a logo and justify. (Assume suitable data)	Create	5	05

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Department of Computer Engineering
Academic Year 2021-2022
Term Test – II

Course Name: Advance Algorithm
Class: TE (A & B)
Date: 27/05/2022
Maximum Marks: 25

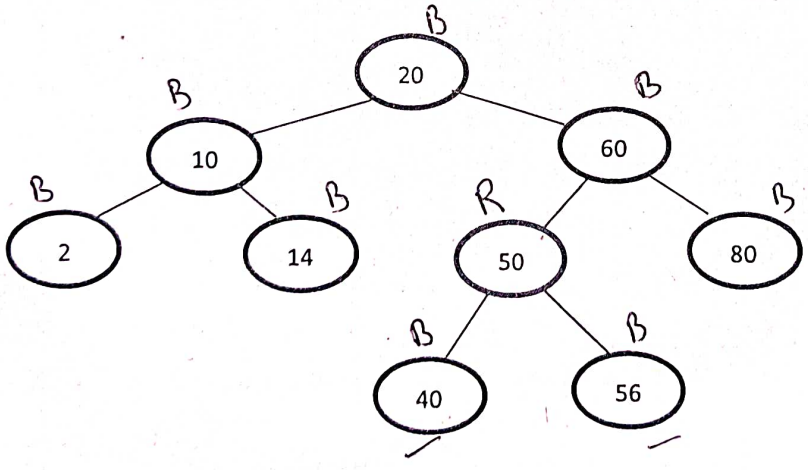
Course Code: DJ19CEC602
Semester: VI
Time: 10.30 am – 11.30 am

Set- I

network flow diag?

Instructions:

1. **Write Set number on the 1st page (right hand side upper corner) of answer sheet.**
2. **Question Number 1 is Compulsory.**
3. Attempt any **THREE** out of remaining questions.

Q. No	Questions	Max. Marks
1.	Write a Short Note on **ANY ONE** of the following: i. HyperLogLog ii. R Tree iii. KD Tree iv. Tango Tree	**04**
2.	Perform Deletion of node '40' and node '56' from following RedBlack Tree.  	**07**

P.T.O.

75

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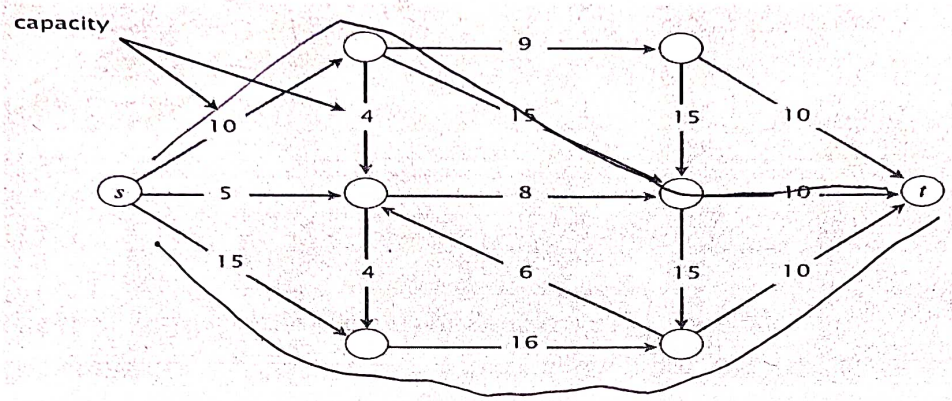
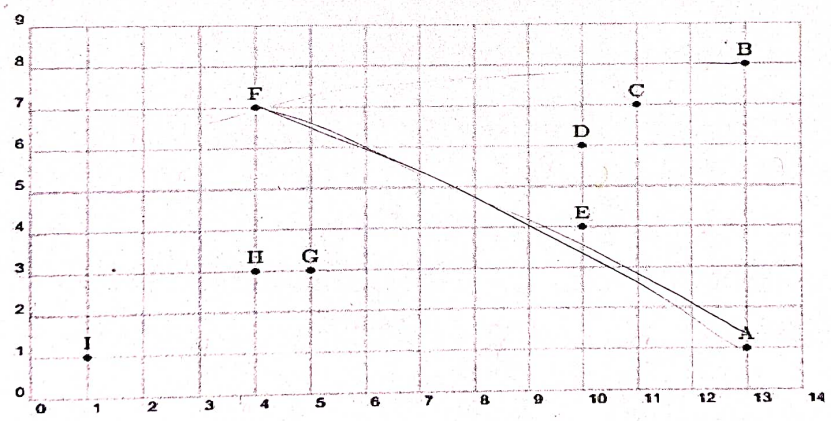
3.	Find Max-Flow in given Network Using Basic Ford Fulkerson algorithm. Starting from the following flow, perform **ONLY TWO** iterations of the Ford-Fulkerson algorithm to calculate its max flow. Choose a shortest augmenting path, i.e., the path with the fewest number of arcs.  Define and draw Residual Network of given graph after performing TWO iterations.	07
4.	What is Convex Hull? Run the Graham Scan algorithm to compute the Convex Hull of points below starting from A 	07
5.	What is K-Server problem? Provide a Greedy based solution for the same.	07

ALL THE BEST!

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Department of Computer Engineering
Academic Year 2021-2022
Term Test – II

Course Name: Business Analytics | **Course Code: DJ19CEEC6013**
Class: TE A, B | **Sem:** VI
Date: 26/05/2022 | **Time:** 10:30 am – 11:30 am
Maximum Marks: 25

Instructions:
(1) Assume suitable data wherever required, but justify it.
(2) Figure to the right indicates full marks.

Q. No	Questions	Bloom's Level	CO mapped	Max. Marks
1.	What are the different ways in which we can solve the problem of high cardinality of data in SAS Visual Analytics? Which filters can be edited with the Report Viewer? OR Discuss how a Text data source is analyzed in SAS.	Knowledge, Apply	CO4	10
2.	Explain the purpose of following panes available in SAS Visual Analytics Report Builder. a) Suggest Pane b) Roles Pane c) Action Pane d) Rules Pane OR Explain the following with relevant examples a) Calculated item b) Aggregated measure c) Custom Category c) Derived items	Knowledge, Apply	CO3	10
3	Justify which graph would help you determine whether a measure is normally distributed?	Knowledge, Apply	CO2	05

*** All the Best ***