

Hall Ticket Number :										
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R-19

Code: 19A55IT

III B.Tech. I Semester Regular Examinations February 2022

Cloud Computing

(Computer Science & Engineering)

Max. Marks: 70

Time: 3 Hours

Answer any five full questions by choosing one question from each unit (5x14 = 70 Marks)

	Marks	CO	Blooms Level
UNIT-I			
1. a) Define Network centric computing and network centric content.	6M	CO1	L1
b) What are the various types of services provided by the cloud computing?	8M	CO1	L1
OR			
2. a) Compare Network centric computing and network centric content.	6M	CO1	L2
b) Write short note on Microsoft Azure cloud infrastructure.	8M	CO1	L2
UNIT-II			
3. a) Bring out the differences between original Map Reduce model and Map Reduce line frameworks.	8M	CO2	L4
b) Discuss the cloud computing applications and paradigms in brief.	6M	CO2	L2
OR			
4. a) What is Map Reduce programming model? Describe the kinds of problems that MapReduce can solve.	8M	CO2	L1
b) Discuss the role of state machine model for coordination in cloud.	6M	CO2	L2
UNIT-III			
5. a) Explain the different levels of virtualization implementation	7M	CO3	L2
b) Explain virtual machine monitors. What are the characteristics of virtualized environment?	7M	CO3	L2
OR			
6. a) Explain vBlades paravirtualization in x86-64 Itanium processor.	7M	CO3	L2
b) Give the difference between CPU virtualization and memory virtualization	7M	CO3	L4
UNIT-IV			
7. a) Explain how big tables are stored on a distributed file systems such as GFS.	7M	CO4	L2
b) Explain the stability of a two level resource allocation architecture in cloud resource management.	7M	CO4	L2
OR			
8. Discuss the role of Coordination of specialized autonomic performance managers in cloud computing	14M	CO4	L2
UNIT-V			
9. a) Discuss the risk factors of network level of cloud infrastructure.	7M	CO5	L2
b) What is AWS? What type of service does it provide?	7M	CO5	L1
OR			
10. a) What are EC2 instances? State the types of EC2 instance. How it works?	7M	CO5	L1
b) Describe in brief 'Operating System Security'.	7M	CO5	L1

****END****

Hall Ticket Number :

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R-19**Code: 19A552T**

III B.Tech. I Semester Regular Examinations Jan/Feb 2022

Computer Networks

(Computer Science & Engineering)

Max. Marks: 70

Time: 3 Hours

Answer any five full questions by choosing one question from each unit (5x14 = 70 Marks)

		Marks	CO	Blooms Level
UNIT-I				
1.	a) Discuss about OSI Model with neat sketch.	7M	CO1	L2
	b) Describe the Transmission Media. What are the types of Transmission Media?	7M	CO1	L2
OR				
2.	a) What is Internet? List out the applications of Internet.	7M	CO1	L1
	b) Illustrate TCP/IP reference model with a neat diagram.	7M	CO1	L4
UNIT-II				
3.	a) Calculate Error detecting using CRC codes with an example.	7M	CO2	L3
	b) Describe the Selective Repeat Automatic Repeat Request.	7M	CO2	L2
OR				
4.	Discuss about Framing and Transition phases in Point to Point Protocol.	14M	CO2	L2
UNIT-III				
5.	a) Analyze the transition from IPV4 to IPV6.	7M	CO3	L4
	b) Demonstrate Link State Routing algorithm with suitable example.	7M	CO3	L3
OR				
6.	a) Distinguish the Classful and Classless addressing with an example.	7M	CO3	L2
	b) Explain in detail about IGMP Operation.	7M	CO3	L2
UNIT-IV				
7.	Discuss in detail about the TCP connection-oriented transmission phases.	7M	CO4	L2
OR				
8.	Analyze the Scheduling and Traffic Shaping techniques to improve QoS.	14M	CO4	L4
UNIT-V				
9.	a) Explain about in Name Servers in DNS.	7M	CO5	L2
	b) Draw the Architecture of the email system, services and explain.	7M	CO5	L4
OR				
10.	a) What is HTTP? Describe about HTTP request methods.	7M	CO5	L2
	b) Explain in detail about Multipurpose Internet Mail Extensions.	7M	CO5	L2

*****END*****

Code: 19A55CT

III B.Tech. I Semester Regular Examinations February 2022

Cryptography and Network Security

(Computer Science and Engineering)

Max. Marks: 70

Time: 3 Hours

Answer any five full questions by choosing one question from each unit (5x14 = 70 Marks)

	Marks	CO	Blooms Level
UNIT-I			
1. a) Denial-of-service is a threat on which data property and why? Justify your answer.	7M	1	2
b) Is an attack tree a threat model? If yes, elaborate your answer with suitable diagram and examples.	7M	1	3
OR			
2. a) State differences between Information access threats and Service threats.	7M	1	1
b) Discuss the role of security services and mechanism. Also define the relation between services and mechanisms.	7M	1	2
UNIT-II			
3. a) Modern symmetric block ciphers are designed on the principle of spreading (widening) the non-linearity introduced by an S-Box. Which component (operation) in the AES Cipher achieves this principle? Describe the working of this component and how does it propagate the non-linearity?	7M	2	4
b) Consider a Diffie-Hellman Scheme with a common prime $q = 11$ and a primitive root $p = 3$.			
i. If user Alice has a public key $Y_A = 7$, what is Alice's private key X_A ?			
ii. If user Bob has public key $Y_B = 9$, what is shared secret key K ?	7M	2	3
OR			
4. a) Describe RSA algorithm steps.	7M	2	4
b) Perform encryption and decryption using the RSA algorithm for the following: $P=3$; $q=11$; $e=7$; $M=5$.	7M	2	4
UNIT-III			
5. a) Compare the hashing algorithms SHA1, and SHA-512 on the parameters of Maximum allowed message size, Block size, Message digest size, Number of rounds in the hashing algorithm, and Word size.	7M	3	1

- b) Explain in detail about the two way challenge response and three way challenge response for entity authentication with symmetrical algorithm. 7M 3 2

OR

6. a) Discuss the requirements for message authentication codes 7M 3 3
b) What are the deficiencies of Kerberos V4. 7M 3 2

UNIT-IV

7. a) For SSH packets, what is the advantage, if any, of not including the MAC in the scope of the packet encryption? 7M 4 2
b) Give reasons why each of the following symmetric encryption algorithms is suitable or unsuitable for PGP: DES, two-key triple DES, and AES. 7M 4 2

OR

8. a) In the PGP scheme, what is the expected number of session keys generated before a previously created key is produced? 7M 4 2
b) Is it possible in SSL for the receiver to reorder SSL record blocks that arrive out of order? If so, explain how it can be done. If not, why not? 7M 4 1

UNIT-V

9. a) Explain about Host based Intrusion Detection Systems in brief. 7M 5 1
b) Briefly explain Encapsulating IP Security Payload? 7M 5 1

OR

10. a) Describe the architecture of IPSec. 7M 5 2
b) Explain Anomaly-primarily based Intrusion Detection System? 7M 5 2

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Hall Ticket Number :									
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R-19

Code: 19A553T

III B.Tech. I Semester Regular Examinations February 2022

Data Warehousing and Data Mining

(Computer Science and Engineering)

Max. Marks: 70

Time: 3 Hours

Answer any five full questions by choosing one question from each unit (5 x 14 = 70Marks)

	Marks	CO	Blooms Level
UNIT-I			
1. a) Write a short note on Data Cleaning, Data Integration and Transformation as a part of Preprocessing the Data.	9M	CO1	L2
b) Explain about Data Reduction with suitable example.	5M	CO1	L1,L2
OR			
2. a) Describe about Major issues in Data Mining.	6M	CO1	L1,L2
b) Explain about Fundamentals of data mining and Data Mining Functionalities.	8M	CO1	L2
UNIT-II			
3. a) Briefly discuss about Data Warehouse and OLAP Technology for Data Warehouse.	7M	CO2	L1
b) Analyze about Multidimensional Data Model with neat diagram.	7M	CO2	L2
OR			
4. a) Explain about Data Warehouse Architecture.	7M	CO2	L2
b) Discuss about From Association Mining to Correlation Analysis.	7M	CO2	L4
UNIT-III			
5. a) What are the issues Regarding Classification and Prediction?	7M	CO3	L1,L2
b) Explain the role of attribute subset selection measure used in decision tree?	7M	CO3	L2
OR			
6. a) Interpret about Classification by Bayesian Classification with appropriate example.	7M	CO3	L3
b) Explain about Prediction and Classifier Accuracy measures.	7M	CO3	L2
UNIT-IV			
7. a) Briefly discuss about types of Data in Cluster Analysis and Major Clustering Methods.	8M	CO4	L2,L3
b) Discuss about Partitioning Methods.	6M	CO4	L2
OR			
8. a) Explain Model-Based Clustering Method with example.	7M	CO4	L2
b) Write a short note on Outlier Analysis Method.	7M	CO4	L2
UNIT-V			
9. a) Describe Mining the World Wide Web with appropriate illustration.	7M	CO5	L2,L3
b) What is Mining Spatial Databases and explain it with example.	7M	CO5	L2,L3
OR			
10. a) Explain Data Mining Applications with appropriate illustrations.	7M	CO5	L2,L3
b) Differentiate between Mining Multimedia Databases and Mining Text Databases.	7M	CO5	L2

END

Hall Ticket Number :

R-19

Code: 19A55GT

III B.Tech. I Semester Regular Examinations February 2022

Linux Programming

(Computer Science and Engineering)

Max. Marks: 70

Time: 3 Hours

Answer any five full questions by choosing one question from each unit (5x14 = 70 Marks)

UNIT-I

- | | Marks | CO | Blooms Level |
|--|-------|-----|--------------|
| 1. a) Describe the issues with creating, copying, moving and deleting the directory file in Linux with examples. | 7M | CO1 | L2 |
| b) Illustrate the file filter commands with examples | 7M | CO1 | L2 |
| OR | | | |
| 2. a) Explain a linux command to find the sum of bytes (size of file) of all files in a directory. | 7M | CO1 | L2 |
| b) Describe an awk script to find the number of characters, words and lines in a file. | 7M | CO1 | L2 |

UNIT-II

- | | | | |
|--|----|-----|----|
| 3. a) Outline different directory functions to perform create, update, modify and remove, close, rewind with example | 7M | CO2 | L3 |
| b) Differentiate symbolic link instead of a hard link. | 7M | CO2 | L5 |
| OR | | | |
| 4. a) Describe about Low Level File I/O System Calls. | 7M | CO2 | L2 |
| b) Compare usage of dup(), dup2() system calls with example? | 7M | CO2 | L3 |

UNIT-III

- | | | | |
|--|----|-----|----|
| 5. a) Illustrate about child process creation using fork(), vfork() and Exec() | 7M | CO3 | L3 |
| b) Solve a problem to find sum of odd numbers by child process and sum of even numbers by parent processes of given range numbers using fork function. | 7M | CO3 | L3 |
| OR | | | |
| 6. a) What Is A Daemon? and Describe Some of the most common daemons | 7M | CO3 | L1 |
| b) Write a program to create a child process and get the processed of child and parent | 7M | CO3 | L2 |

UNIT-IV

- | | | | |
|---|----|-----|----|
| 7. a) Define Semaphore? Write about Semaphore system calls? | 7M | CO4 | L1 |
| b) Summarize file locking mechanism with Semaphores? | 7M | CO4 | L2 |
| OR | | | |
| 8. a) Explain the following functions with syntax:
(i) stat() (ii) read() (iii) open() (iv) fstat() | 7M | CO4 | L2 |
| b) Explain about memory management functions malloc(), calloc(), realloc(), free() with suitable example. | 7M | CO4 | L2 |

UNIT-V

- | | | | |
|--|----|-----|----|
| 9. a) Define Shared memory? Write about Shared memory system calls? | 7M | CO5 | L2 |
| b) Draw the structure of TCP/IP for exchange information between client and server. | 7M | CO5 | L3 |
| OR | | | |
| 10. a) Demonstrate client and server programming using UDP protocol with Neat diagram? | 7M | CO5 | L3 |
| b) Illustrate about Semaphores with examples? | 7M | CO5 | L3 |

END

Hall Ticket Number :

R-19

Code: 19A55LT

III B.Tech. I Semester Regular Examinations February 2022

R Programming

(Computer Science and Engineering)

Max. Marks: 70

Time: 3 Hours

Answer any five full questions by choosing one question from each unit (5 x 14 = 70Marks)

Marks CO Blooms Level

UNIT-I

- | | | | | |
|-------|---|----|-----|----|
| 1. a) | Explain the history and features of R | 7M | CO1 | L2 |
| b) | Demonstrate the Help functions in R with example code | 7M | CO1 | L3 |

OR

- | | | | | |
|-------|---|----|-----|----|
| 2. a) | Discuss about NA and NULL values in R with examples. | 6M | CO1 | L4 |
| b) | Write a R program to create a vector of a specified type and length | 8M | CO1 | L1 |

UNIT-II

- | | | | | |
|-------|---|----|-----|----|
| 3. a) | Compare and contrast Matrices, Arrays and Lists | 6M | CO2 | L5 |
| b) | Write R program to create two 2x3 matrix and add, subtract, multiply and divide the matrixes. | 8M | CO2 | L1 |

OR

- | | | | | |
|-------|---|----|-----|----|
| 4. a) | Explain the General list operations in R with example code. | 7M | CO2 | L2 |
| b) | Describe about Factors and Tables | 7M | CO2 | L2 |

UNIT-III

- | | | | | |
|-------|--|----|-----|----|
| 5. a) | Explain data frame, create data frame of student details and display summary of data in data frame | 7M | CO3 | L2 |
| b) | Write a R program for Recursion | 7M | CO3 | L1 |

OR

- | | | | | |
|-------|--|----|-----|----|
| 6. a) | Write a R program to extract specific column from a data frame using column name | 8M | CO3 | L1 |
| b) | Explain Environment and Scope issues | 6M | CO3 | L2 |

UNIT-IV

- | | | | | |
|-------|------------------------------------|----|-----|----|
| 7. a) | Explain in detail about S4 Classes | 7M | CO4 | L2 |
| b) | Explain how to manage your objects | 7M | CO4 | L2 |

OR

- | | | | | |
|-------|--|----|-----|----|
| 8. a) | Explain about Input/output operations | 6M | CO4 | L2 |
| b) | Write R program for creating three-dimensional plots | 8M | CO4 | L1 |

UNIT-V

- | | | | | |
|----|--|-----|-----|----|
| 9. | Explain in detail various types of creating Graphics in R with suitable examples | 14M | CO5 | L2 |
|----|--|-----|-----|----|

OR

- | | | | | |
|--------|---|----|-----|----|
| 10. a) | Explain in detail interfacing R to other languages. | 8M | CO5 | L2 |
| b) | Explain the steps to calling R from Python. | 6M | CO5 | L1 |

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Hall Ticket Number :									
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R-19

Code: 19A55HT

III B.Tech. I Semester Regular Examinations February 2022

Software Project Management
(Computer Science and Engineering)

Max. Marks: 70

Time: 3 Hours

Answer any five full questions by choosing one question from each unit (5x14 = 70 Marks)

Marks	CO	Blooms Level
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UNIT-I

- | | | | | |
|-------|---|----|-----|----|
| 1. a) | Discuss about conventional software management performance? | 7M | CO1 | L2 |
| b) | Explain pragmatic software cost estimation with necessary examples? | 7M | CO1 | L2 |

OR

- | | | | | |
|-------|---|----|-----|-------|
| 2. a) | Write about three levels of process and their attributes. | 6M | CO1 | L1 |
| b) | List and explain any four Staffing principles offered by Boehm for improving team effectiveness | 8M | CO1 | L1,L2 |

UNIT-II

- | | | | | |
|----|---|-----|-----|-------|
| 3. | List and explain the 10 principles of modern software management? | 14M | CO2 | L1,L2 |
|----|---|-----|-----|-------|

OR

- | | | | | |
|-------|--|----|-----|----|
| 4. a) | Explain the various phases of life cycle process? | 6M | CO2 | L2 |
| b) | Explain about Release Specification and Software development plan in management artifacts? | 8M | CO2 | L2 |

UNIT-III

- | | | | | |
|----|--|-----|-----|----|
| 5. | State out the different aspects of architecture from management perspective? | 14M | CO3 | L2 |
|----|--|-----|-----|----|

OR

- | | | | | |
|----|--|-----|-----|----|
| 6. | Discuss on typical minor milestones in the life cycle of an iteration with a neat diagram? | 14M | CO3 | L2 |
|----|--|-----|-----|----|

UNIT-IV

- | | | | | |
|-------|---|-----|-----|----|
| 7. a) | Differentiate the conventional and Evolutionary WBS approaches. | 10M | CO4 | L4 |
| b) | Explain about Top-Down Cost and Schedule estimating process. | 4M | CO4 | L2 |

OR

- | | | | | |
|----|---|-----|-----|----|
| 8. | Explain in detail on default roles in a software-line-of business organization with a diagram | 14M | CO4 | L2 |
|----|---|-----|-----|----|

UNIT-V

- | | | | | |
|----|---|-----|-----|----|
| 9. | With a neat table, Explain seven core metrics used to manage projects and organization with their purpose and perspectives? | 14M | CO5 | L2 |
|----|---|-----|-----|----|

OR

- | | | | | |
|--------|---|----|-----|----|
| 10. a) | Discuss about the culture shifts in modern process transitions? | 8M | CO5 | L2 |
| b) | Explain about the nine best practices for software process framework. | 6M | CO5 | L2 |

END

*Choose the correct Answer.**100 X 1 = 100 Marks*

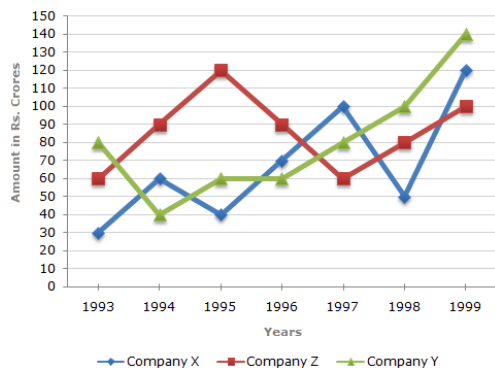
- Two taps A and B can fill a tank in 4 hrs. and 5 hrs respectively. If both the pipes are opened simultaneously. How much time will be taken to fill the tank?
a) $2\frac{2}{9}$ hrs b) $3\frac{1}{2}$ c) $2\frac{1}{2}$ d) $5\frac{1}{2}$
- A Certain number when divided by 95 leaves a remainder 30. What is the remainder if, the same number be divided by 19?
a) 8 b) 9 c) 10 d) 11
- With what least number should 1250 be multiplied to make it a perfect cube?
a) 5 b) 10 c) 25 d) 100
- Which three numbers in the ratio 3:2:5 have the sum of their squares as 1862?
a) 30, 20, 50 b) 21, 14, 35 c) 18, 21, 30 d) 24, 16, 40
- Find the smallest number which when divided by 24, 36, & 60 leaves 20, 32, & 56 as remainders respectively?
a) 256 b) 356 c) 456 d) 556
- If a merchant estimates his loss as 25% on the S.P, what is his actual loss %?
a) same b) 20% c) 15% d) 30%
- The cost price of 4 articles is equal to the selling price of 5 articles. Find the profit or loss percentage.
a) 20% loss b) 25 % loss c) 25% profit d) 33.33% profit
- On selling for Rs.600 a man loses 25%, at what price should it be sold to gain 25%?
a) 800 b) 900 c) 1000 d) 1200
- One man and four boys can do a work in 26 days and two men and two boys can do the same work in 16 days. A man is how many times efficient than a boy?
a) 1.5 b) 4.6 c) 8 d) 12
- 2 men can dig a 2 m canal in 2 days. Then 8 men can dig 8 m canal in how many days?
a) 1 b) 2 c) 4 d) 8
- The average age of an adult class is 40 years. Twelve new students with an average age 32 years join the Class, thereby decreasing the average of the class by 4 years. The original strength of the class was
a) 10 b) 11 c) 12 d) 15
- The Average of 13 results is 68. The average of first 7 is 63 and that of the last 7 is 70. What is the seventh result?
a) 27 b) 37 c) 47 d) 57
- Anita can type a 3200 pages typing job in 10 days, while Beena can type 1600 pages in 5 days. If both work together, in how many days can they complete a 1920 pages typing job?
a) 3 b) 4 c) 5 d) 6
- Pipe A can fill a tank in 6 hrs. Due to a leak in the bottom, it takes 8 hrs to fill the tank. If pipe A can fill the tank at the rate of 6 lts/minute, find the capacity of the tank.
a) 1080 b) 2160 c) 3200 d) 4210

15. The population of bacteria decreases by 20% every hour. If the population of the bacteria after one hour from now is calculated to be 1200, what would be its population before one hour from now?
 a) 1875 b) 1700 c) 1500 d) 1660
16. A person crosses a 600 m long street in 5 minutes. What is his speed in km per hour?
 a) 3.6 b) 7.2 c) 8.4 d) 10
17. Excluding stoppages the speed of a bus is 54 kmph and including stoppages it is 45 kmph. For how many minutes does the bus stop per hour?
 a) 9 b) 10 c) 12 d) 20
18. A train running at the speed of 60 km/hr crosses a pole in 9 seconds. What is the length of the train?
 a) 120 metres b) 180 metres c) 324 metres d) 150 metres
19. A group of friends goes for dinner and gets bill of Rs 2400. Two of them says that they have forgotten their purse so remaining make an extra contribution of Rs 100 to pay up the bill. Find the number of persons in that group?
 a) 8 persons b) 7 persons c) 6 persons d) 5 persons
20. There are seven books one each on Psychology, Hindi, English, Sociology, Economics, Education and Accountancy lying on the table one above the other. Sociology is on the top of all the books. Accountancy is immediate below Education which is immediately below Sociology. Economics is immediately above Psychology but not in the middle. Hindi is immediately below Psychology. Which three books are between Accountancy and Hindi?
 a) Education, English, Economics b) Education, Economics, Psychology
 c) English, Economics, Psychology d) none of the above
21. If $6 \text{ and } 2 = 22$, $4 \text{ and } 3 = 1$, $8 \text{ and } 2 = 46$ then find the value of $7 \text{ and } 2$?
 a) 26 b) 33 c) 42 d) 45
22. Replace each letter by a digit from 1 to 9. Each letter represents the same digit whenever it occurs.
- $$\begin{array}{r} X \ X \ X \ X \\ Y \ Y \ Y \ Y \\ + Z \ Z \ Z \ Z \\ \hline Y \ X \ X \ X \ Z \end{array}$$
- What are the values for the alphabets X, Y and Z?
 a) X=2, Y=3, Z=5 b) X=3, Y=5, Z=7 c) X=7, Y=2, Z=5 d) X=9, Y=1, Z=8
23. Six girls P, Q, R, S, T and V are sitting in a circle facing to the center of the circle. Three queries are: T is not in between Q and S but some other one. P is next to the left of V. R is fourth to the right of P. Who is sitting just right to the V?
 a) P b) T c) R d) S/Q

DIRECTIONS FOR Q.No: (24 – 28)

Study the following line graph and answer the questions.

Exports from Three Companies Over the Years (in Rs. crore)



24. For which of the following pairs of years the total exports from the three Companies together are equal?
 a) 1995 and 1998 b) 1996 and 1998 c) 1977 and 1998 d) 1995 and 1996
25. Average annual exports during the given period for Company Y is approximately what percent of the average annual exports for Company Z?
 a) 87.12% b) 89.64% c) 91.21% d) 93.33%
26. What was the difference between the average exports of the three Companies in 1993 and the average exports in 1998?
 a) Rs. 15.33 crores b) Rs. 18.67 crores c) Rs. 20 crores d) Rs. 22.17 crores
27. In how many of the given years, were the exports from Company Z more than the average annual exports over the given years?
 a) 2 b) 3 c) 4 d) 5
28. In which year was the difference between the exports from Companies X and Y the minimum?
 a) 1994 b) 1995 c) 1996 d) 1997

DIRECTIONS FOR Q.No: (29 – 32): In each question below are given two statements followed by two conclusions numbered I and II. You have to take the given two statements to be true even if they seem to be at variance from commonly known facts. Read the conclusion and then decide which of the given conclusions logically follows from the two given statements, disregarding commonly known facts.

29. **Statements:** All the locks are keys.

All the keys are bats.

Some watches are bats.

Conclusions: 1. Some bats are locks. 2. Some watches are keys.

3. All the keys are locks.

- a) Only (1) and (2) b) Only (1)
 c) Only (2) d) Only (1) and (3)

30. **Statements:** Some keys are staplers.

Some staplers are stickers.

All the stickers are pens.

Conclusions: 1. Some pens are staplers. 2. Some stickers are keys.

3. No sticker is key. 4. Some staplers are keys.

- a) Only (1) and (2) b) Only (2) and (4)
 c) Only (2) and (3) d) Only (1) and (4) and either (2) or (3)

31. **Statements:** Some questions are answers.

Some answers are writers.

All the writers are poets.

Conclusions: 1. Some writers are answers. 2. Some poets are questions.

3. All the questions are poets. 4. Some poets are answers.
- a) Only (1) and (2) b) Only (1) and (4) c) Only (1) and (3) d) Only (2) and (4)
32. **Statements:** Some envelopes are gums.
Some gums are seals.
Some seals are adhesives.
Conclusions: 1. Some envelopes are seals. 2. Some gums are adhesives.
3. Some adhesives are seals. 4. Some adhesives are gums.
- a) Only (3) b) Only (1) c) Only (2) d) Only (4)
33. A+B means A is the son of B; A - B means A is the wife of B; A x B means A is the brother of B; A / B means A is the mother of B and A = B means A is the sister of B. Then what does P x R / Q mean?
- a) P is the brother of R b) P is the father of Q
c) P is the uncle of Q d) P is the nephew of Q
34. 80, 10, 70, 15, 60, ... What number should come next?
- a) 20 b) 25 c) 30 d) 50
35. 2, 6, 18, 54, ... What number should come next?
- a) 108 b) 148 c) 162 d) 201
36. 5.2, 4.8, 4.4, 4, ... What number should come next?
- a) 3.2 b) 3.6 c) 3.8 d) 3.4
37. 1000, 200, 40, ... What number should come next?
- a) 8 b) 10 c) 15 d) 5
38. 544, 509, 474, 439, ... What number should come next?
- a) 404 b) 414 c) 420 d) 445
39. SCD, TEF, UGH, _____, WKL
- a) CMN b) UJI c) VIJ d) IJT
40. ELFA, GLHA, ILJA, _____, MLNA
- a) OLPA b) KLMA c) LLMA d) KLLA
41. CMM, EOO, GQQ, _____, KUU
- a) GRR b) GSS c) ISS d) ITT
42. In a certain code, '37' means 'which class' and '583' means 'caste and class'. What is the code for 'Caste'?
- a) 3 b) 7 c) 8 d) Either 5 or 8
43. If ROSE is coded as 6821, CHAIR is coded as 73456 and PREACH is coded as 961473, what will be the code for SEARCH?
- a) 246173 b) 214673 c) 214763 d) 216473
44. In a language A is coded as 1, B is coded as 2, then FACE is coded as
- a) 1356 b) 6135 c) 6315 d) 6134
45. In a certain code FLOWER is coded as 36 and SUNFLOWER is coded as 81, then how to code FOLLOWS?
- a) 42 b) 49 c) 63 d) 36
46. In a code language, A is written as B, B is written as C, C is written as D and so on, then how will SMART be written in that code language?
- a) TLBSU b) SHBSU c) TNBSU d) SNBRU
47. If Go = 32, SHE = 49, then SOME will be equal to

- a) 56 b) 58 c) 62 d) 64
48. **Question:** On which date of the month was Anjali born in February 2004?
Statements: I. Anjali was born on an even date of the month.
 II. Anjali's birth date was a prime number.
 a) I alone is sufficient while II alone is not sufficient
 b) II alone is sufficient while I alone is not sufficient
 c) Either I or II is sufficient
 d) Both I and II are sufficient
49. **Statements:** All the harmoniums are instruments. All the instruments are flutes.
Conclusions: 1. All the flutes are instruments. 2. All the harmoniums are flutes.
 a) Only (1) conclusion follows b) Only (2) conclusion follows
 c) Either (1) or (2) follows d) Neither (1) nor (2) follows
50. **Statements:** Some papers are pens. All the pencils are pens.
Conclusions: 1. Some pens are pencils. 2. Some pens are papers.
 a) Only (1) conclusion follows b) Only (2) conclusion follows
 c) Either (1) or (2) follows d) Both (1) and (2) follow

Directions (51-55) In each of the following questions, out of the given alternatives, choose the one which best expresses meaning of the given word.

51. Wrath
 a) Jealousy b) Hatred c) Anger d) Violence
52. Lethargy
 a) Laxity b) Impassivity c) Serenity d) Listlessness
53. Diligent
 a) Intelligent b) Energetic c) Modest d) industrious
54. Bounty
 a) Donation b) Gift c) Pleasure d) Reward
55. Mystique
 a) Fame b) Reputation c) Admirable Quality d) Popularity

Direction (56-60) In each of the following questions, choose the word opposite in meaning to the given word.

56. Fraternity
 a) Hospitability b) Hostility c) Brotherhood d) Enmity
57. Mawkish
 a) Sentimental b) Intelligent c) Certain d) Carefree
58. Magnify
 a) Induce b) Diminish c) Destroy d) Shrink
59. Vanquish
 a) Surrender b) Debase c) Destroy d) Ruin
60. Malicious
 a) Boastful b) Indifferent c) Kind d) Generous

Directions (61-65) In each of the following questions, and Idiomatic expression is given followed by alternatives, choose the one which best expresses the meaning of the given idiom.

61. To turn over a new leaf

- a) To change completely one's course of action
 b) To shift attention to new problems after having studied the old ones thoroughly
 c) To cover up one's faults by wearing new marks
 d) To change the old habits and adopt new ones
62. To talk one's head off
 a) To talk loudly b) To talk in whispers c) To talk to oneself d) To talk excessively
63. To throw down the glove
 a) To resort to wrong tactics b) To give a challenge
 c) To accept defeat d) To reject the prize
64. To flog a dead horse
 a) To act in a foolish way b) To waste one's efforts
 c) To revive interest in an old subject d) To revive old memories
65. To play fast and loose
 a) To beguile others b) To be winning some times and losing at other times
 c) To play with someone's feelings d) To play tricks

Directions (66-70): In each of the following questions, out of the four alternatives, choose the one which can be substituted for the given words/sentences

66. Bringing about gentle and painless death from incurable disease
 a) Suicide b) Euphoria c) Gallows d) Euthanasia
67. Large scale departure of people
 a) Migration b) Emigration c) Immigration d) Exodus
68. One who always runs away from danger
 a) Escapist b) Timid c) Coward d) Shirker
69. Simplest and smallest form of plant life, present in air, water and soil; essential to life but may cause disease
 a) Virus b) Amoeba c) Bacteria d) Toxin
70. One who loves mankind
 a) Anthropologist b) Philanthropist c) Seismologist d) Optometrist

Directions (71-75) In each of the following questions, a word has been written in four different ways out of which only one is correctly spelt. Find the correctly spelt word.

71. a) Alienate b) Allienate c) Alienat d) Alienatte
72. a) Accommodetion b) Accomodation c) Accommodtion d) Accommodation
73. a) Leisure b) Leissure c) Leasure d) Lesiure
74. a) pasanger b) pessenger c) pesanger d) passenger
75. a) comitment b) comitment c) commitment d) comitmant

Direction (76-80): In the questions given below, some of the sentences have errors and some have none. Find out which part of a sentence has an error. If there is no mistake, the answer is 'No error'.

76. Man needs (a)/ security and leisure. (b) / of free thinking. (c) / No error (d)
77. I am not wealthy,(a)/so I cannot afford (b)/to buy a expensive car(c) no error(d)
78. The man (a)/ cannot live (b) / by bread alone. (c) / No error (d)
79. A person I met (a) / in the theatre (b) / was the playwright himself. (c) / No error (d)
80. To perform this experiment, (a) / drop little sugar (b) / into a glass of water. (c) / No error (d)

Directions (81-85):: in each question, a part of sentence is printed in italics. Bellow each sentence, some phrases are given which can substitute the italicized part of the sentence. Find out the phrase which can correctly substitute that part of the sentence. if sentence is correct as it is, the answer is 'No correction is required' or No improvement.

- 81 The police broke away the meeting as it turned violent.
a) Broke up b) Broke off c) broke through d) No improvement
- 82 They are working for the upliftment of their village.
a) uplift of b) uplifting of c) uplifting d) No improvement
- 83 My mother asked me when would I have a glass of milk.
a) I will b) I would c) I shall d) No improvement
- 84 The teacher asked, "why you are late?"
a) why you were late b) why late you are c) why are you late d) No correction required
- 85 The train left before we reached the station.
a) had left b) would have left c) has had left d) No improvement

Directions (86-90) Rearrange the given sentences A,B,C,D ,and E in the proper sequence so as to form a meaningful paragraph and then answer the questions given below them.

- A. As he got up, a frightened native told him about the man –eater.
B. When he approached the thick bush, he saw the lion running towards him.
C. To m was awakened by the fearful screams of the villagers.
D. I n a stage of fright, a shot was fired accidentally by Tom, but it hit the Lion.
E. Tom decided to chase the lion and took out his gun.

86. Which of the following should be the first sentence?
a) A b) B c) C d) D
87. Which of the following should be the second sentence?
a) A b) B c) C d) D
88. Which of the following should be the third sentence?
a) A b) B c) C d) E
89. Which of the following should be the fourth sentence?
a) A b) B c) C d) D
90. Which of the following should be the last sentence?
a) A b) B c) C d) D

Directions (91-100): Read the following passage carefully and answer the questions given below it.

Amnesty International's charge that 'tens of thousands' of political prisoners, including prisoners of conscience, are languishing in India jails and that prisoners are routinely tortured in this country has to be seen in a much wider context than the organization's annual report cares to do. In its overall appraisal of 151 countries, Amnesty has accused 112 of torturing prisoners, 63 of harboring prisoners of conscience, 61 of resorting to political killings and 53 of detaining people without a trial. Of these apparently overlapping categories, India seems to have been excluded from the list of the 61 which undertake political killings. The report has however, pointed out that scores of people in India die of torture in police and military custody and that many also simply disappear. Clearly, only a thin line separates the 61 charged with political murder from the rest. Before coming to such conclusions, however, it may also be necessary to classify the various countries according to their political systems. Torture by the security forces and killings at the behest of the government make no difference to the victims whether they are in a democratic country or a totalitarian one. It is also nobody's case that a democratic country is less culpable than a dictatorship in the event of human rights violations. But the point perhaps still needs to be made that torture of the system in a democracy in contrast to being an integral part of state policy in a country ruled by an autocrat who is answerable to no one.

91 In the report, India has been excluded from which of the following categories of violating human rights?

- 3-1 B.Tech Reg General Aptitude SET-A

Hall Ticket Number :

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R-19**Code: 19A551T**

III B.Tech. I Semester Regular Examinations February 2022

Advanced Java Programming

(Computer Science and Engineering)

Max. Marks: 70

Time: 3 Hours

Answer any five full questions by choosing one question from each unit (5x14 = 70 Marks)

Marks	CO	Blooms Level
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UNIT-I

- | | | | |
|--|----|-----|------|
| 1. a) Examine the methods defined in GraphicsContext that draw shapes, text, images, and support effects and transforms. | 7M | CO1 | BL-3 |
| b) Show the skeleton of a JavaFX application and describe the methods used. | 7M | CO1 | BL-1 |

OR

- | | | | |
|---|----|-----|------|
| 2. a) Choose a suitable program and demonstrate the procedure related to event handling and button. | 7M | CO1 | BL-5 |
| b) Design a Java program to explain the mechanism of a JavaFX label. | 7M | CO1 | BL-6 |

UNIT-II

- | | | | |
|---|----|-----|------|
| 3. a) List out the built-in effects. Show the syntax for each effect and explain the application of each effect on the node in a scene graph. | 8M | CO2 | BL-1 |
| b) How to add Tooltip and disable a control in JavaFX? Discuss with an example. | 6M | CO2 | BL-2 |

OR

- | | | | |
|--|----|-----|------|
| 4. a) Explain how to create main menu and add mnemonics and accelerator to menu items with an example. | 8M | CO2 | BL-2 |
| b) Develop a Java program that loads an image and displays the image via ImageView | 6M | CO2 | BL-6 |

UNIT-III

- | | | | |
|--|----|-----|------|
| 5. a) Assess the mechanism related to processing the result sets and making changes to a result set. | 8M | CO3 | BL-5 |
| b) How to handle multiple results from a statement interface? Discuss. | 6M | CO3 | BL-2 |

OR

- | | | | |
|---|----|-----|------|
| 6. a) Define driver. Illustrate different types of drivers in JDBC with a suitable program. | 8M | CO3 | BL-3 |
|---|----|-----|------|

- b) Discuss how to set auto-commit mode and rolling back data into database with a suitable JDBC program? 6M CO3 BL-2

UNIT-IV

7. a) Generate a servlet code that allows you to read the names and values of parameters that are included in a client request. 6M CO4 BL-6
- b) Summarize and describe the core classes that are provided in the javax.servlet package. 8M CO4 BL-2

OR

8. a) Compose a servlet that handles an HTTP GET request. 8M CO4 BL-6
- b) Interpret the procedure to create and compile the servlet source code. 6M CO4 BL-2

UNIT-V

9. a) Demonstrate the procedure for calling bean from a JSP page and making a bean available. 8M CO5 BL-3
- b) Evaluate the process of setting a property value from a request using a suitable example. 6M CO5 BL-5

OR

10. a) What's wrong with the servlets? Compare JSP and servlets. 6M CO5 BL-5
- b) Analyze the task of accessing properties using jsp:getProperty and jsp:setProperty. 8M CO5 BL-4

END

Code: 19A55BT

III B.Tech. I Semester Regular Examinations February 2022

Artificial Neural Networks

(Computer Science and Engineering)

Max. Marks: 70

Time: 3 Hours

Answer any five full questions by choosing one question from each unit (5x14 = 70 Marks)

		Marks	CO	Blooms Level
UNIT-I				
1.	a) "Neuron inhibition depends on activation function" Justify this statement with different types of activation functions.	7M	CO1	L5
	b) Discuss the basic functional units of an Artificial Neural Network.	7M	CO1	L2
OR				
2.	a) "Artificial neuron is resembling the functionalities of biological neuron"- Justify this statement in all functional aspects.	8M	CO1	L5
	b) What is Dynamic model? Discuss different types of Dynamic models.	6M	CO1	L4
UNIT-II				
3.	a) Discuss in detail about the analysis of pattern association networks.	7M	CO2	L2
	b) Describe Stochastic Networks in detail.	7M	CO2	L2
OR				
4.	a) Explain Simulated Annealing in Feed Back Neural Networks.	6M	CO2	L2
	b) What are different types of classification networks?	8M	CO2	L4
UNIT-III				
5.	a) Write about the usage of Radial Basis Function networks to perform complex pattern classification task.	7M	CO3	L1
	b) Explain How to find maximal hyper planes to solve two class classification problem with Support Vector Machine When data is a) Linearly separable b) Linearly Inseparable	7M	CO3	L2
OR				
6.	a) What is radial basis function network (RBFN)? Explain the training algorithm used for RBFN with fixed centers.	7M	CO3	L4
	b) How to build a Support Vector Machine for pattern recognition problem? Explain in detail.	7M	CO3	L1
UNIT-IV				
7.	a) Explain in detail about Brain State in a Box neural Network.	7M	CO4	L2
	b) Discuss Linear Associative Memory.	7M	CO4	L2
OR				
8.	a) Write the application of Hopfield Network.	5M	CO4	L1
	b) Explain Bidirectional Associative Memory in detail.	9M	CO4	L2
UNIT-V				
9.	a) What are the applications of SOM.?	7M	CO5	L4
	b) Explain Principal Component Analysis with a suitable diagram.	7M	CO5	L2
OR				
10.	a) Discuss the self-organization feature maps.	7M	CO5	L2
	b) What are Generalized Learning Laws? Explain in detail	7M	CO5	L4

*****END*****