

REG: A22



SREENIDHI INSTITUTE OF SCIENCE AND TECHNOLOGY
Autonomous Institution
Yamnampet, Ghatkesar, Hyderabad - 501 301.

FIRST MID EXAMINATION, APRIL 2024

Course: B. Tech II Year II SEM

Branch: CSE, IT, ECM, CS & IOT

Subject: Python Programming - 9FC02

Time : 2 Hours

Date : ~~06/05/2024 (FN)~~ 06/05/2024 (FN)

Max Marks: 30

Part - A

(Compulsory Short answers)

6X 2 = 12 Marks

S.No	Coverage		BCLL	CO(s)	Marks
1	From Unit-I	List out membership operators in python with examples?	L1	CO1	2
2	From Unit-I	Write the syntax to create a file "file1.txt" in read, write and append modes	L1	CO1	2
3	From Unit-II	Develop the string s="SNIST" in reverse order without using string method	L4	CO2	2
4	From Unit-II	Differences between list and tuple	L4	CO2	2
5	From Unit-III	Write any four methods from random module with example	L1	CO3	2
6	From Unit-III	Define package and write about how to create a package in python	L1	CO3	2

Part - BAnswer any **THREE** out of the **FOUR** questions 3X 6 = 18 Marks

S.No	Coverage		BCLL	CO(s)	Marks
7	From Unit-I	a) Write a python program to display all lines of file which start with T(Alphabet)	L1	CO1	3
		b) Demonstrate history and feature of python programming language	L3	CO1	3
8	From Unit-II	a) Discuss the following list methods i) insert ii) pop iii) append iv) extend	L2	CO2	3
		b) Design a python program to swap keys and values in dictionary	L6	CO2	3
9	From Unit-III	a) Develop a python program to generate 5-digit OTP and 10-digit password by using random module	L4	CO3	3
		b) Write a python program to demonstrate try-except-else and finally	L1	CO3	3
10 a)	From Unit-I	Write a python program demonstrates the division obtained by students in 6 subjects	L1	CO1	2
b)	From Unit-II	Develop a python program that calculates the sum of all elements in a list using list methods	L4	CO2	2
c)	From Unit-III	Write short note on math module	L1	CO3	2

List - 6

V. Anand



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Autonomous Institution
Yamnampet, Ghatkesar, Hyderabad – 501 301.

FIRST MID EXAMINATION, APRIL 2024

Course: B.Tech II Year II SEM
Subject: Probability and Statistics
Date : 25.04.2024 (AN)

Branch: (CSE, IT & EEE)
Time : 2 Hours
Max Marks: 30

Part – A
(Compulsory Short answers)

6X 2 = 12 Marks

S.No	Coverage		BCLL	CO(s)	Marks
1	Unit-I	Write the properties of normal distribution.	L1	CO-1	2
2	Unit-I	If a Poisson distribution is such that $\frac{3}{2}P(X=1) = P(X=3)$, find $P(X \geq 1)$.	L2	CO-1	2
3	Unit-II	Find the value of the finite population correction factor for $N = 2000$, $n=28$	L1	CO-2	2
4	Unit-I	A random sample of 400 items is found to have mean 82 and S.D of 18. Find the Maximum error of estimation at 95% confidence.	L1	CO-2	2
5	Unit-III	Explain types of error	L2	CO-3	2
6	Unit-III	The average mark scored by 32 boys is 72 with a Standard deviation of 8, While that for 36 girls is 70 with a Standard deviation of 6. Find the test statistic Z_{cal} for concerned test of hypothesis. <i>1.15</i>	L3	CO-3	2

Part – B

Answer any **THREE** out of the **FOUR** questions

3X 6 = 18 Marks

S.No	Coverage		BCLL	CO(s)	Marks																		
7	Unit-I	A random variable X has the following probability function <table><tr><td>X</td><td>0</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td></tr><tr><td>P(X)</td><td>0</td><td>K</td><td>2K</td><td>2K</td><td>3K</td><td>K^2</td><td>$2K^2$</td><td>$7K^2+K$</td></tr></table> Find (i) the value of K (ii) Mean (iii) Variance	X	0	1	2	3	4	5	6	7	P(X)	0	K	2K	2K	3K	K^2	$2K^2$	$7K^2+K$	L3	CO-1	6
X	0	1	2	3	4	5	6	7															
P(X)	0	K	2K	2K	3K	K^2	$2K^2$	$7K^2+K$															
8	Unit-II	a) Explain briefly the types of estimation. b) Construct the possible samples of size 2 by without replacement from the population 2, 3, 6, 8 and 11 (i) The population mean and standard deviation (ii) The mean of sampling distribution of means	L2 L3	CO-2 CO-2	3 3																		
9	Unit-III	a) Explain the procedure for testing of hypothesis for single mean. b) A coin was tossed 400 times and returned heads 216 times. Test the hypothesis that the coin is unbiased. Use a 0.05 Level of significance.	L2 L4	CO-3 CO-3	3 3																		
10	Unit-I	The mean of Binomial distribution is 3 and the variance is 9/4. Find $P(x \geq 7)$	L3	CO-1	2																		
a)	Unit-II	A random sample of size 144 is taken from an infinite population having the mean 75 and variance 225. Find the probability that the sample mean will lie between 72 and 77.	L2	CO-2	2																		
b)	Unit-III	A sample of 400 items is taken from a population whose standard deviation is 10. The mean of the sample is 40. Test whether the sample has come from a population with mean 38.	L3	CO-3	2																		



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REG: A22

FIRST MID EXAMINATION, APRIL 2024

Course: B. Tech II Year ~~ISEM~~

Branch: CSE/IT/CS/DS/AI/ML/IoT

Subject: Database Management Systems

Time : 2 Hours

Date : 30.04 .2024 (FN)

Max Marks: 30

Part – A

(Compulsory Short answers) 6X 2 = 12 Marks

S.No	Coverage		BCLL	CO(s)	Marks
1	From Unit-I	List out ACID properties. Explain Atomicity.	L1	CO1	2
2	From Unit-I	Differentiate between Procedural DML and Non-Procedural DML.	L4	CO1	2
3	From Unit-II	Define the following terms i. Relational Schema ii. Relational Instance iii. Relational degree iv. Relational cardinality.	L1	CO2	2
4	From Unit-II	Describe Generalization and specialization in Class hierarchy of ER Models	L2	CO2	2
5	From Unit-III	List and explain different types of OUTER JOIN operations in SQL	L2	CO2	2
6	From Unit-III	Write the different ways to stop the insertion of NULL values in database table. Also write how to compare NULL values.	L1	CO2	2

Part – B

Answer any THREE out of the FOUR questions 3X 6 = 18 Marks

S.No	Coverage		BCLL	CO(s)	Marks
7	From Unit-I	Explain the different Levels of Abstraction. What is Data Independence? Explain the types of Data Independence.	L2	CO1	6
8	From Unit-II	With suitable examples explain various operations in relational algebra.	L2	CO2	6
9	From Unit-III	For the given relations Sailors (Sid:Integer, Sname:String, age: Float, rating:Float) Reserves(Sid:Integer, Bid:Integer, Rdate:Date) Boats(Bid:Integer, Bname:String, color:String) Write the queries in SQL 1. Find the color of boat named 'Interlake' 2. Find the name of sailor who has reserved red boat but not the green boat. 3. Find the name of sailor who have reserved at least two boats.	L3	CO2	6
10 a)	From Unit-I	What is Database Model? List out different database Models.	L1	CO1	2
b)	From Unit-II	Write the syntax for enforcing primary key and foreign key constraints in SQL.	L1	CO2	2
c)	From Unit-III	Explain different Aggregate functions in SQL.	L2	CO2	2



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FIRST MID EXAMINATION, MAY 2024

Course: B.Tech II Year II SE Branch: CSE/IT/ECM/CS/AIML/DS/IOT

Subject: BEFA

Date : 06.05.2024 (AN)

Time : 2 Hours

Max Marks: 30

Part – A
(Compulsory Short answers)

6X 2 = 12 Marks

S.No	Coverage		BCLL	CO(s)	Marks
1	From Unit-I	List out any 5 demand determinants.	L1	CO1	2
2	From Unit-I	Mention the different types of elasticity of demand.	L1	CO1	2
3	From Unit-II	Write a note on isoquants and isocosts.	L2	CO2	2
4	From Unit-II	What is marginal cost? <i>MC</i>	L2	CO2	2
5	From Unit-III	Mention the different types of competition.	L1	CO3	2
6	From Unit-III	Bring out the difference between market penetration and market skimming strategy.	L4	CO3	2

Part – B

Answer any **THREE** out of the **FOUR** questions

3X 6 = 18 Marks

S.No	Coverage		BCLL	CO(s)	Marks
7	From Unit-I	Explain the different demand forecasting methods.	L2	CO1	6
8	From Unit-II	Explain the different internal and external economies of scale.	L2	CO2	6
9	From Unit-III	Discuss the features of a perfect market.	L2	CO3	6
10 a)	From Unit-I	Describe the scope of business economics.	L2	CO1	2
b)	From Unit-II	Explain the different types of costs.	L2	CO2	2
c)	From Unit-III	List out the pricing strategies.	L1	CO3	2

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Price, Quantity, Demand, Cost

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Specific Information

Conclusion

24/4/24





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REG: A22

FIRST MID EXAMINATION, APRIL 2024

Course: B.Tech II Year II SEM

Branch: CSE, IT, DS

Subject: CO

Time : 2 Hours

Date : 25.04.2024 FN

Max Marks: 30

Part – A

(Compulsory Short answers)

6X 2 = 12 Marks

S.No	Coverage		BCLL	CO(s)	Marks
1	Unit-4	Draw the flag format of 8086 and mention control flags. <i>61161</i>	L1	CO-4	2
2	Unit-4	Generate physical address for the given <i>4222</i> CS=6005h, IP=1111h & SS=4005h, SP=2222h	L4	CO-4	2
3	Unit-5	Distinguish between Procedures and macros.	L1	CO-5	2
4	Unit-5	Develop an ALP for subtracting 03h from 05h and find the Square of the Result.	L1	CO-5	2
5	Unit-6	Define ALE, identify multiplexing pins of 8086 for address and data	L2	CO-6	2
6	Unit-6	Define HOLD, HLDA, mention any two features of 8086.	L3	CO-6	2

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Part – B

Answer any THREE out of the FOUR questions 3X 6 = 18 Marks

S.No	Coverage		BCLL	CO(s)	Marks
7	Unit-4	Explain about addressing modes of 8086 <i>S.L</i>	L3	CO-4	6
8	Unit-5	a) Expand DB, DW, DD, DT, define INT3h <i>C.T</i> 2M b) Write an ALP for average of series of numbers 4M	L5	CO-5	6
9	Unit-6	a) Draw the Pin diagram of 8086. 3M b) Explain about minimum mode operation for Read cycle. 3M	L2	CO-6	6
10 a)	Unit-4	Draw the architecture of 8086 with neat diagram.	L3	CO-4	2
b)	Unit-5	Develop an ALP for Adding 03h, 04h, and find the Square of the Result	L2	CO-5	2
c)	Unit-6	Define CLK, RESET, READY, pins of 8086.	L3	CO-6	2

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FIRST MID EXAMINATION, APRIL 2024

Course: B.Tech II Year II SEM

Branch: ALL

Subject: Environmental Science (9HC04)

Time : 2 Hours

Date : 30-04-2024(AN)

Max Marks: 30

Part – A

(Compulsory Short answers)

6X 2 = 12 Marks

S.No	Coverage		BCLL	CO(s)	Marks
✓ 1	Unit-I	What is biological nitrogen fixation?	L1	CO-1	2
2	Unit-I	Predict the path of biomagnifications.	L4	CO-1	2
3	Unit-II	Outline over-exploitations of natural resources.	L1	CO-2	2
4	Unit-II	Compare exhaustible and inexhaustible resources.	L3	CO-2	2
5	Unit-III	List various biodiversity conservation methods.	L2	CO-3	2
6	Unit-III	Why is biodiversity so important and worthy of protection?	L3	CO-3	2

Part – B

Answer any THREE out of the FOUR questions 3X 6 = 18 Marks

S.No	Coverage		BCLL	CO(s)	Marks
✓ 7	Unit-I	What is ecosystem? Discuss structure of forest ecosystem.	L1	CO-1	6
✓ 8	Unit-II	Illustrate about alternate energy resources.	L2	CO-2	6
✓ 9	Unit-III	Interpret various levels of biodiversity. <i>genetic species ecosystem</i>	L5	CO-3	6
10a	Unit-I	How do plants absorb nitrogen?	L1	CO-1	2
b	Unit-II	Differentiate renewable resources from non-renewable resources.	L2	CO-2	2
c	Unit-III	Summarize hot spots of biodiversity.	L2	CO-3	2

Set - 1

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SECOND MID EXAMINATION, JULY 2024**Course:** B. Tech II Year II SEM**Branch:** IT, CSE, ECM, CS, IoT**Subject:** Python Programming (9FC02)**Time :** 2 Hours**Date :** 24.07.2024 (FN)**Max Marks:** 30**Part – A****(Compulsory Short answers)****6X 2 = 12 Marks**

S. No	Coverage		BCLL	CO(s)	Marks
1	From Unit-IV	Demonstrate the difference between overloading and overriding in Python.	L3	CO4	2M
2	From Unit-IV	Differentiate between searching and matching.	L4	CO4	2M
3	From Unit-V	Write a command to copy contents of one file to a different file.	L3	CO5	2M
4	From Unit-V	Mention few methods related to the concept of Directories in Python.	L1	CO5	2M
5	From Unit-VI	Explain the difference between Numpy and Scipy libraries and which is the best out of them?	L2	CO6	2M
6	From Unit-VI	Write a simple GUI program in Python to display a text using Tkinter module.	L3	CO6	2M

Part – B**Answer any THREE out of the FOUR questions****3X 6 = 18 Marks**

S.No	Coverage		BCLL	CO(s)	Marks
7	From Unit-IV	a) Write Python script to Store Students Details using Class. The students' attributes are RollNo, Name, Date_of_Birth, Mobile_Number, E_MailID and Address. Also, define functions in class to count number of students and to display all students' details.	L4	CO4	3M
		b) Explain regular expressions in Python. Elaborate any 4 Modifiers mostly used in Regular Expressions with examples.	L3	CO4	3M
8	From Unit-V	a) Develop python program to count number of alphabets, digits and special symbols from input file data.	L4	CO5	3M
		b) Discuss any 5 directory methods present in the os module.	L2	CO5	3M
9	From Unit-VI	a) List out any 5 functions of Numpy in Python with examples.	L1	CO6	3M
		b) Elaborate importance of PlotPy with the development of any application using PlotPy in Python.	L3	CO6	3M



10 a)	From Unit-IV	a) Explain about the types of attributes with an example.	L2	CO4	2M
b)	From Unit-V	b) Do you think it is mandatory to call close () method after using the file? Justify.	L5	CO5	2M
c)	From Unit-VI	c) Write a Python GUI program to add a button in your application using Tkinter module.	L3	CO6	2M

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Yamnampet, Ghatkesar, Hyderabad – 501 301.

SECOND MID EXAMINATION, July 2024

Course: B.Tech II Year II SEM

Branch: CSE, IT&EEE

Subject: Probability and Statistics (9HC15)

Time : 2 Hours

Date : 22.07.2024 (AN)

Max Marks: 30

Part – A
(Compulsory Short answers)

6X 2 = 12 Marks

S.No	Coverage		BCLL	CO(s)	Marks
1	From Unit-IV	For an F-distribution, find (i) $F_{0.99}(28,12)$ (ii) $F_{0.05}(7,15)$	L3	CO-3	2
2	From Unit-IV	For t-distribution, find (i) $t_{0.025}$ (ii) $t_{0.995}$ if the degrees of freedom are 14 and 7 respectively. 2.145 7.415	L3	CO-3	2
3	From Unit-V	Define simple correlation and write about types of correlation.	L1	CO-4	2
4	From Unit-V	Given $n=10$, $\sigma_x = 5.4$, $\sigma_y = 6.2$ and sum of the product of deviation from the mean of X and Y is 66. Find the correlation coefficient.	L2	CO-4	2
5	From Unit-VI	Find mean of x and mean of y, if the regression lines y on x and x on y are $x + 6y = 6$; $3x + 4y = 10$.	L3	CO-5	2
6	From Unit-VI	To fit a regression plane $y = a + bx_1 + cx_2$, write its normal equations.	L1	CO-5	2

Part – B

Answer any THREE out of the FOUR questions

3X 6 = 18 Marks

S.No	Coverage		BCLL	CO(s)	Marks																						
7	From Unit-IV	From the following data, Use Chi squared test and state whether the two attributes i.e., condition of house and condition of child are independent. $0.5 = 5.991$ $0.025 = 7.378$ <table><tr><td></td><td colspan="2">Condition of House</td></tr><tr><td>Condition of child</td><td>Clean</td><td>Dirty</td></tr><tr><td>Clean</td><td>69</td><td>51</td></tr><tr><td>Fairly clean</td><td>81</td><td>20</td></tr><tr><td>Dirty</td><td>35</td><td>44</td></tr></table>		Condition of House		Condition of child	Clean	Dirty	Clean	69	51	Fairly clean	81	20	Dirty	35	44	L4	CO-3	6							
	Condition of House																										
Condition of child	Clean	Dirty																									
Clean	69	51																									
Fairly clean	81	20																									
Dirty	35	44																									
8	From Unit-V	Determine the rank correlation for the following data which shows the marks obtained in two mid examinations in mathematics <table><tr><td>Mid-1</td><td>6</td><td>5</td><td>8</td><td>8</td><td>7</td><td>6</td><td>10</td><td>4</td><td>9</td><td>7</td></tr><tr><td>Mid-2</td><td>8</td><td>7</td><td>7</td><td>10</td><td>5</td><td>8</td><td>10</td><td>6</td><td>8</td><td>6</td></tr></table>	Mid-1	6	5	8	8	7	6	10	4	9	7	Mid-2	8	7	7	10	5	8	10	6	8	6	L3	CO-4	6
Mid-1	6	5	8	8	7	6	10	4	9	7																	
Mid-2	8	7	7	10	5	8	10	6	8	6																	
9	From Unit-VI	Estimate the chlorine residual parts per million in a swimming pool after 5 hours(x) it has been treated with chemicals by an exponential curve of the form $y=ab^x$ to the following data. <table><tr><td>No. of hours</td><td>2</td><td>4</td><td>6</td><td>8</td><td>10</td><td>12</td></tr><tr><td>Chlorine residual</td><td>1.8</td><td>1.5</td><td>1.4</td><td>1.1</td><td>1.1</td><td>0.9</td></tr></table>	No. of hours	2	4	6	8	10	12	Chlorine residual	1.8	1.5	1.4	1.1	1.1	0.9	L4	CO-5	6								
No. of hours	2	4	6	8	10	12																					
Chlorine residual	1.8	1.5	1.4	1.1	1.1	0.9																					
10 a)	From Unit-IV	Write the test statistic (t_{cal}) formula for a small-sample test concerning to difference between two means.	L1	CO-3	2																						
b)	From Unit-V	Evaluate the correlation coefficient to the following data points (2,18) (4,12), (5,10), (6,8) (8,7) and (11,5)	L5	CO-4	2																						
c)	From Unit-VI	Find a least square straight line for the following data <table><tr><td>x</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td></tr><tr><td>y</td><td>6</td><td>4</td><td>3</td><td>5</td><td>4</td><td>2</td></tr></table>	x	1	2	3	4	5	6	y	6	4	3	5	4	2	L3	CO-5	2								
x	1	2	3	4	5	6																					
y	6	4	3	5	4	2																					

$-7 \times 3585 \times 10^{-3}$



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SECOND MID EXAMINATION, JULY 2024

Course: B.Tech II Year II SEM

Branch: CSE, IT, ECM, AI&ML, DS, CS & IOT.

Subject: DATABASE MANAGEMENT SYSTEMS

Time : 2 Hours

Date : 31.07.2024 (FN)

Max Marks: 30

Part – A

(Compulsory Short answers)

6X 2 = 12 Marks

S.No	Coverage		BCLL	CO(s)	Marks
1	From Unit-IV	Write about lossless join decomposition?	L3	CO4	2M
2	From Unit-IV	Explain Multi Valued Dependency?	L2	CO4	2M
3	From Unit-V	List out the properties of Transaction. Explain?	L2	CO5	2M
4	From Unit-V	Draw and explain the state diagram of a Transaction.	L2	CO5	2M
5	From Unit-VI	Why do we need Indexing. Explain Primary Indexing with the suitable diagram.	L3	CO6	2M
6	From Unit-VI	Differentiate between dense Index and Sparse Index?	L2	CO6	2M

Part – B

Answer any THREE out of the FOUR questions

3X 6 = 18 Marks

S.No	Coverage		BCLL	CO(s)	Marks
7	From Unit-IV	What is Normalization. Explain Second Normal Form (2NF) Third Normal Form (3NF) with an example?	L2	CO4	6M
8	From Unit-V	Illustrate the concept of Validation Based Protocol?	L4	CO5	6M
9	From Unit-VI	Build the B ⁺ tree index structure of order four with the following search key values: 2, 4, 7, 10, 17, 21, 28, 30, 34, 35.	L6	CO6	6M
10 a)	From Unit-IV	Discuss the Functional Dependency with an example?	L2	CO4	2M
b)	From Unit-V	Differentiate between Serial and Concurrent Schedules in the Transaction.	L4	CO5	2M
c)	From Unit-VI	Give an over view of Secondary Indexing?	L3	CO6	2M

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SECOND MID EXAMINATION, JULY 2024

Course: B.Tech II Year II SE Branch: CSE/IT/ECM/CS/AIML/DS/IOT

Subject: BEFA

Time : 2 Hours

Date : 24.07.2024 (FN)

Max Marks: 30

Part – A

(Compulsory Short answers)

6X 2 = 12 Marks

S.No	Coverage		BCLL	CO(s)	Marks
1	From Unit-IV	Bring out the difference between capital and revenue expenditure. <i>Rev Acc</i>	L1	CO4	2
2	From Unit-IV	Write a note on business entity concept. <i>Debit</i>	L1	CO4	2
3	From Unit-V	Bring out the difference between Trading account and Profit & Loss account. <i>Profit</i>	L2	CO5	2
4	From Unit-V	What are the two effects of outstanding salaries given in adjustment?	L2	CO5	2
5	From Unit-VI	What are the types of ratios? What do they measure?	L1	CO6	2
6	From Unit-VI	Write the formulas any two ratios.	L2	CO6	2

Part – B

Answer any **THREE** out of the **FOUR** questions

3X 6 = 18 Marks

Answer any THREE out of the FOUR questions			5X3 = 15 marks	BCLL	CO(s)	Marks																																													
S.No	Coverage			L2	CO4	6																																													
7	From Unit-IV	Journalize the following transactions: Jan1 Purchased goods for cash 20,00Rs Jan2 Paid Salaries 3,00,000 Jan 10 Interest Paid 1,000 Jan12 Sold goods to Ram & Co 75,000	Per cash deb Salaries A/c deb Interest deb																																																
8	From Unit-IV	From the following Trial Balance prepare final accounts: <table><thead><tr><th>Particulars</th><th>Debit</th><th>Credit</th></tr></thead><tbody><tr><td>Capital</td><td></td><td>25,000</td></tr><tr><td>Bank Loans</td><td></td><td>5,000</td></tr><tr><td>Sales</td><td></td><td>35,000</td></tr><tr><td>Bills Payable</td><td></td><td>4,000</td></tr><tr><td>Creditors</td><td></td><td>5,000</td></tr><tr><td>Purchase Returns</td><td></td><td>2,000</td></tr><tr><td>Dividend received</td><td></td><td>3,000</td></tr><tr><td>Machinery</td><td>13,000</td><td></td></tr><tr><td>Buildings</td><td>17,000</td><td></td></tr><tr><td>Bills Receivable</td><td>9,650</td><td></td></tr><tr><td>Purchases</td><td>18,000</td><td></td></tr><tr><td>Discount Allowed</td><td>1,200</td><td></td></tr><tr><td>Wages(factory)</td><td>7,000</td><td></td></tr><tr><td>Salaries</td><td>3,000</td><td></td></tr></tbody></table>	Particulars	Debit	Credit	Capital		25,000	Bank Loans		5,000	Sales		35,000	Bills Payable		4,000	Creditors		5,000	Purchase Returns		2,000	Dividend received		3,000	Machinery	13,000		Buildings	17,000		Bills Receivable	9,650		Purchases	18,000		Discount Allowed	1,200		Wages(factory)	7,000		Salaries	3,000		Loss deb	L3	CO5	6
Particulars	Debit	Credit																																																	
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		Travelling 750 Expenses Freight(factory expense) 200 Insurance 300 Commission Paid 100 Bank 1,700 Repairs 500 Interest on Loans 600 Opening Stock 6,000 79,00079,000 Adjustments: Closing Stock Rs 8,000 Depreciation on Buildings 10% Prepaid Insurance Rs 50 Outstanding Rent Rs 100 wages (factory)																																							
9	From Unit-V	Following is the Balance Sheet of ABC Co as on 31/03/2015 <table><thead><tr><th>Liabilities</th><th>Amount</th><th>Assets</th><th>Amount</th></tr></thead><tbody><tr><td>Share Capital</td><td>4,00,000</td><td>Goodwill</td><td>20,000</td></tr><tr><td></td><td></td><td>Buildings</td><td>2,50,000</td></tr><tr><td>General Reserve</td><td>20,000</td><td>Machinery</td><td>1,75,000</td></tr><tr><td>Profit</td><td>15,000</td><td>Furniture</td><td>10,000</td></tr><tr><td>5% Debentures</td><td>1,00,000</td><td>Stock</td><td>90,000</td></tr><tr><td>Creditors</td><td>28,000</td><td>Debtors</td><td>21,000</td></tr><tr><td>Bills Payable</td><td>12,000</td><td>Cash at Bank</td><td>9,000</td></tr><tr><td></td><td>5,75,000</td><td></td><td>5,75,000</td></tr></tbody></table> Calculate: (a)Fixed Assets to Proprietary Fund Ratio (b)Current Ratio ©Quick Ratio	Liabilities	Amount	Assets	Amount	Share Capital	4,00,000	Goodwill	20,000			Buildings	2,50,000	General Reserve	20,000	Machinery	1,75,000	Profit	15,000	Furniture	10,000	5% Debentures	1,00,000	Stock	90,000	Creditors	28,000	Debtors	21,000	Bills Payable	12,000	Cash at Bank	9,000		5,75,000		5,75,000	L3	CO5	6
Liabilities	Amount	Assets	Amount																																						
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	5,75,000		5,75,000																																						
10 a)	From Unit-V	Explain any two accounting concepts.	L2	CO4	2																																				
b)	From Unit-VI	What are the items shown in a Balance Sheet?	L2	CO5	2																																				
c)	From Unit-VI	Explain any two ratios.	L1	CO6	2																																				



SCREENIDHI INSTITUTE OF SCIENCE AND TECHNOLOGY
Autonomous Institution
Yamnapet, Ghatkesar, Hyderabad – 501 301.

SECOND MID EXAMINATION, JULY 2024

Course: B.Tech II Year II SEM

Branch: CSE, IT, DS

Subject: CO

Time : 2 Hours

Date : 22.07.2024(FN)

Max Marks: 30

Part – A
(Compulsory Short answers)

6X 2 = 12 Marks

S.No	Coverage		BCLL	CO(s)	Marks
1	Unit-1	Discuss about functional units of a computer	L1	CO-1	2
2	Unit-1	Draw the IEEE format for single precision floating point representation and mention the types of computers.	L4	CO-1	2
3	Unit-2	Define micro operation, mention few micro operations.	L1	CO-2	2
4	Unit-2	Mention the advantages of stack organized CPU	L1	CO-2	2
5	Unit-3	Explain about mapping b/w computer instruction and microinstruction in control unit	L2	CO-3	2
6	Unit-3	Draw the microinstruction format and computer instruction format	L3	CO-3	2

Part – B

Answer any **THREE** out of the **FOUR** questions 3X 6 = 18 Marks

S.No	Coverage		BCLL	CO(s)	Marks
7	Unit-1	a) Distinguish b/w Multiprocessors and Multicomputer. b) Perform arithmetic operations on (25 +15), (33-25) using 2's complement method.	L3	CO-1	3 3
8	Unit-2	a) Explain about instruction cycle using neat diagram and flow chart b) List few types of computer instructions	L5	CO-2	4 2
9	Unit-3	a) Explain about address sequencer with neat diagram. b) Draw and explain the flow chart for Booths multiplication	L2	CO-3	3 3
10	Unit-1	Explain basic operational concept of computers	L3	CO-1	2
a)	Unit-2	Draw the hardware implementation diagram for logical operations	L2	CO-2	2
b)	Unit-3	Differences between Hardwired and Micro programmed control unit	L3	CO-3	2
c)					



SREENIDHI INSTITUTE OF SCIENCE AND TECHNOLOGY
Autonomous Institution
Yamnampet, Ghatkesar, Hyderabad – 501 301.

REG: A22

THIRD MID EXAMINATION, AUGUST 2024

Course: B.Tech II Year II SEM
Subject: Computer Organization
Date : 20.08 .2024 (AN)

Branch: CSE and IT
Time : 2 Hours
Max Marks: 30

Part – A
(Compulsory Short answers)

6X 2 = 12 Marks

S.No	Coverage		BCLL	CO(s)	Marks
1	From Unit-I	Represent -13 in IEEE single precision format.	L5	CO1	2
2	From Unit-II	Draw 4 bit binary adder.	L2	CO2	2
3	From Unit-III	Represent the microinstruction format of a control unit.	L1	CO3	2
4	From Unit-IV	List the different segment registers in 8086.	L1	CO4	2
5	From Unit-V	Differentiate Procedure and Macro.	L3	CO5	2
6	From Unit-VI	Brief interrupt vector table	L2	CO6	2

Part – B

Answer any **THREE** out of the **SIX** questions

3X 6 = 18 Marks

S.No	Coverage		BCLL	CO(s)	Marks
7	From Unit-I	a) What is the role of software in a basic computer?	L2	CO1	3
		b) List the parameters which improve the performance of a computer.	L1	CO1	3
8	From Unit-II	With a neat flow chart discuss the steps involved in an instruction cycle.	L3	CO2	6
9	From Unit-III	a) Discuss in detail about microprogram sequencer.	L4	CO3	3
		b) Illustrate Booth's multiplication algorithm using numerical example.	L5	CO3	3
10	From Unit-IV	Explain in detail the architecture of 8086.	L2	CO4	6
11	From Unit-V	a) Write an assembly language program to find the square of a given number.	L3	CO5	3
		b) Write an assembly language program to reverse a string.	L3	CO5	3
12	From Unit-VI	Explain in detail the internal block diagram of 8255.	L2	CO6	6

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Autonomous Institution
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SECOND MID EXAMINATION, JULY 2024

Course: B.Tech II Year II SEM **Branch:** CE, EEE, ME, ECE, CSE, IT, CS, DS, AI&ML, IoT

Subject: Environmental Science

Time : 2 Hours

Date : 26.07.2024(AN)

Max Marks: 30

Part – A

(Compulsory Short answers)

6X 2 = 12 Marks

S.No	Coverage		BCLL	CO(s)	Marks
1	From Unit-IV	What are Gases that cause Green House effect?	L1	CO-4	2
2	From Unit-IV	Mention about soil degradation.	L2	CO-4	2
3	From Unit-V	Define sustainable Development	L1	CO-5	2
4	From Unit-V	What is the effect of over-exploitation of resources?	L3	CO-5	2
5	From Unit-VI	What are Environmental Protection acts?	L1	CO-6	2
6	From Unit-VI	Classify EIA.	L2	CO-6	2

Part – B

Answer any THREE out of the FOUR questions

3X 6 = 18 Marks

S.No	Coverage		BCLL	CO(s)	Marks
7	From Unit-IV	Define Air pollution? List out the differences between primary and secondary pollutants.	L4	CO-4	6
8	From Unit-V	Discuss sustainable Development and green building concept	L2	CO-5	6
9	From Unit-VI	What do you understand by hazardous waste management and its handling rules.	L2	CO-6	6
10 a)	From Unit-IV	Write any two impacts of global warming	L1	CO-4	2
b)	From Unit-V	Discuss Role of IT in Environment	L3	CO-5	2
c)	From Unit-VI	Explain Concept of EMP	L2	CO-6	2



H.T No 22311 A05LL

Sreenidhi Institute of Science and Technology
(An Autonomous Institution)Regulations:
A22

Code No:9FC02

Date: 08-August-2024 (FN)

B.Tech II-Year II- Semester External Examination, August-2024 (Regular)
PYTHON PROGRAMMING (CSE,IT,ECM,CS,IOT)

Time: 3 Hours

Max.Marks:60

Note: a) No additional answer sheets will be provided.
b) All sub-parts of a question must be answered at one place only, otherwise it will not be valued.
c) Missing data can be assumed suitably.

Bloom's Cognitive Levels of Learning (BCLL)

Remember	L1	Apply	L3	Evaluate	L5
Understand	L2	Analyze	L4	Create	L6

Part - A

Max.Marks: 6x2=12

ANSWER ALL QUESTIONS, EACH QUESTION CARRIES 2 MARKS.

- 1 List the various Data types in python.
- 2 Define a function.
- 3 Define a module.
- 4 Define Inheritance and its types.
- 5 Mention the use of chdir() method.
- 6 Describe few important aspects of Tkinter module.

BCLL	CO(s)	Marks
L1	CO1	[2M]
L1	CO2	[2M]
L1	CO3	[2M]
L1	CO4	[2M]
L1	CO5	[2M]
L2	CO6	[2M]

Part - B

Max.Marks: 6x8=48

ANSWER ALL QUESTIONS. EACH QUESTION CARRIES 8 MARKS.

7. Write a python code to find the roots of a quadratic equation.
OR
8. Explain the various conditional statements and control statements in python using example code.
9. Explain the concept of strings and its method in detail.
OR
10. Write a python code to count the number of occurrences of each number in a given list of numbers.
11. Explain the various keywords used for exception handling with example code.
OR
12. Explain few methods in Math module with example code.
13. Explain match function and search function in regular expressions with suitable examples.
OR
14. Write a Python code to illustrate concept of over loading and overriding with example.
15. List and Explain file functions in python.
OR
16. Write a python code to copy contents of one file to another.
17. Explain in detail the applications of Scipy and plotpy.
OR
18. Explain briefly Tkinter widgets with an example.

BCLL	CO(s)	Marks
L1	CO1	[8M]
L2	CO1	[8M]
L2	CO2	[8M]
L3	CO2	[8M]
L2	CO3	[8M]
L2	CO3	[8M]
L2	CO4	[8M]
L1	CO4	[8M]
L1	CO5	[8M]
L3	CO5	[8M]
L2	CO6	[8M]
L2	CO6	[8M]

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Code No:9HC15

Date: 06-August-2024 (FN)

B.Tech II-Year II- Semester External Examination, August-2024 (Regular)

PROBABILITY AND STATISTICS (EEE,CSE,IT)

Time: 3 Hours

Max.Marks:60

- Note:** a) No additional answer sheets will be provided.
 b) All sub-parts of a question must be answered at one place only, otherwise it will not be valued.
 c) Missing data can be assumed suitably.

Bloom's Cognitive Levels of Learning (BCLL)

Remember	L1	Apply	L3	Evaluate	L5
Understand	L2	Analyze	L4	Create	L6

Part - A

Max.Marks: 6x2=12

ANSWER ALL QUESTIONS, EACH QUESTION CARRIES 2 MARKS.

- | | BCLL | CO(s) | Marks |
|--|------|-------|-------|
| 1 Define Discrete and Continuous random variables. | L1 | CO1 | [2M] |
| 2 Define interval estimation and point estimation. | L2 | CO2 | [2M] |
| 3 Define Type-I and Type-II error. | L1 | CO3 | [2M] |
| 4 Write the testing process for student's t-test. | L1 | CO4 | [2M] |
| 5 Define positive and negative correlation. | L2 | CO5 | [2M] |
| 6 Write the normal equations of the curve $y = a+bx$ by using method of least squares. | L2 | CO6 | [2M] |

Part - B

Max.Marks: 6x8=48

ANSWER ALL QUESTIONS. EACH QUESTION CARRIES 8 MARKS.

- | | BCLL | CO(s) | Marks |
|---|------|-------|-------|
| 7. Out of 800 families with 5 children each, Test how many would you expect to have (a) 3 boys (b) 5 girls (c) either 2 or 3 boys (d) At least one boy, Assume equal Probability for boys and girls. | L2 | CO1 | [8M] |
| OR | | | |
| 8. In normal distribution, 31% of the items are under 45 and 8% are over 64. find the mean and variance of the distribution. | L3 | CO1 | [8M] |
| 9. A population consists of 5 numbers 2, 3, 6, 8 and 11 consider all possible samples of size 2 which can be drawn (i) with replacement (ii) without replacement from this population, Evaluate to find
(a) The Mean of the population
(b) The Standard Deviation of the Population
(c) Mean of the sampling distribution of Means
(d) The Standard Deviation of the Sampling Distribution of Means | L4 | CO2 | [8M] |
| OR | | | |
| 10. A random sample of size 81 was taken whose variance is 20.25 and mean is 32 construct a 98% confidence Interval. | L3 | CO2 | [8M] |
| 11. Random samples of 400 men and 600 women were asked whether they would like to have a Flyover near their residence. 200 men and 325 women were in favour of the proposal. Test the hypothesis that proportions of men and women in favour of the proposal are same, test at 5% Level (Difference of two proportions). | L3 | CO3 | [8M] |

T.T.T OR

$$\hat{p}_1 - \hat{p}_2$$

$$\sqrt{p_2 \left(\frac{1}{n_1} + \frac{1}{n_2} \right)}$$

with | without

$\mu = 6$ | 6

$\sigma^2 = 10.8$ | 6

$\sigma = 3.28$ | 0.657 | 1.039

- 12 A sample of 400 items is taken from a population whose standard deviation is 10. The mean of the sample is 4. Test whether the sample has come from a population with mean 38. Also calculate 95% confidence interval for the population. L3 CO3 [8M]
- $z = 3.4$ 1.65
 $t = 1.96$
- (38.98, 37.02)

- 13 Two independent Samples of sizes 8 and 7 items respectively. L3 CO4 [8M]

Sample-I	11	11	13	11	15	9	12	14
Sample-II	9	11	10	13	9	8	10	---

$CV = 2.1499$
 $t.v = 1.771 (Q.T.T)$

Is the difference between the means of the Samples Significant? Test at 5% L.O.S.

OR

- 14 A set of 5 similar coins is tossed 320 times and result is L4 CO4 [8M]

No. of heads	0	1	2	3	4	5
Frequency	6	27	72	112	71	32

Test the hypothesis at 5% level of significance.

- 15 Calculate the coefficient of correlation between the two variables x and y. L3 CO5 [8M]

x	55	56	58	59	60	60	62
y	35	38	38	39	44	43	44

OR

- 16 Obtain the rank correlation coefficient for the following data L3 CO5 [8M]

x	68	64	75	50	64	80	75	40	55
y	62	58	68	45	81	60	68	48	50

0.6

- 17 Heights of fathers and Sons (in inches) are given in the following table L3 CO6 [8M]

Heights of father	65	66	67	67	68	69	71	73
Heights of Son	67	68	64	68	72	70	69	70

Form the two lines of regression and calculate the expected average heights of the Son when the height of the father is 67.5.

OR

- 18 Fit a parabola $y = a + bx + cx^2$ to the following data. L3 CO6 [8M]

x	0	1	2	3	4
y	1	1.8	1.3	2.5	6.3

$1.42 \approx a$
 $-1.07 \approx b$
 $0.55 \approx c$

-- 00 -- 00 --

0.125
 0.142

$$\frac{N \sum xy - \sum x \sum y}{\sqrt{N(\sum x^2 - \frac{(\sum x)^2}{N})} \sqrt{N(\sum y^2 - \frac{(\sum y)^2}{N})}}$$

$$t = \frac{\bar{y}_c - \bar{y}}{\sqrt{\sum (\frac{1}{n_i} + \frac{1}{n_j})}}$$

$$S^2 = \frac{1}{n-1} \sum (x_i - \bar{x})^2$$

$$1 - \frac{6}{N(N-1)} \sum D^2 + \frac{M_1}{12} (M_1^2 - 1) + \frac{M_2}{12}$$

$-34 / 10/5n$



H.T No 22311A05L4

Sreenidhi Institute of Science and Technology
(An Autonomous Institution)

Regulations:
A22

Code No:9FC04

Date: 12-August-2024 (FN)

B.Tech II-Year II- Semester External Examination, August-2024 (Regular)
DATA BASE MANAGEMENT SYSTEMS (CSE,IT,ECM,CS,AI ML,DS,IOT)

Max.Marks:60

Time: 3 Hours

- Note: a) No additional answer sheets will be provided.
b) All sub-parts of a question must be answered at one place only, otherwise it will not be valued.
c) Missing data can be assumed suitably.

Bloom's Cognitive Levels of Learning (BCLL)

Remember	L1	Apply	L3	Evaluate	L5
Understand	L2	Analyze	L4	Create	L6

Part - A

Max.Marks: 6x2=12

ANSWER ALL QUESTIONS, EACH QUESTION CARRIES 2 MARKS.

- | | BCLL | CO(s) | Marks |
|--|------|-------|-------|
| 1 What are the 3 levels of data abstraction in Database Systems? | L1 | CO1 | [2M] |
| 2 Define selection and projection operations in relational algebra. | L2 | CO2 | [2M] |
| 3 Write an SQL query to retrieve the first_name and last_name columns from a table named Employee. | L5 | CO3 | [2M] |
| 4 What is a functional dependency (FD) in a database? | L1 | CO4 | [2M] |
| 5 Define serializability in the context of transaction management. | L3 | CO5 | [2M] |
| 6 Define file organization in databases and give an example. | L1 | CO6 | [2M] |

Part - B

Max.Marks: 6x8=48

ANSWER ALL QUESTIONS. EACH QUESTION CARRIES 8 MARKS.

- | | BCLL | CO(s) | Marks |
|---|------|-------|-------|
| 7. Describe the overall structure of a database system. And Discuss the functions of storage manager and the query processor. | L4 | CO1 | [8M] |
| OR | | | |
| 8 Explain the roles of Data Definition Language (DDL) and Data Manipulation Language (DML) in database systems. Provide SQL examples for each. | L3 | CO1 | [8M] |
| 9. a) Explain the significance of set operations (union, intersection, set difference) in relational algebra, with examples.
b) Describe the purpose of views in a relational database. Provide an example of creating a view and explain how it can be used in queries. | L2 | CO2 | [8M] |
| OR | | | |
| 10 a) Define Tuple relational calculus and Domain relational calculus. Provide examples to illustrate the differences between them.
b) Describe Integrity Constraints in detail. | L1 | CO2 | [8M] |
| | L3 | | |
| 11 Explain the concept of nested queries in SQL and provide an example of how they can be used to retrieve data from multiple related tables effectively. | L3 | CO3 | [8M] |
| OR | | | |
| 12 Explain how SQL handles NULL values in comparisons and aggregations, and discuss strategies for managing NULL values effectively in database queries | L2 | CO3 | [8M] |
| 13 What is Normalization, Explain Second Normal form and Third Normal form with an example? | L2 | CO4 | [8M] |
| OR | | | |
| 14 Determine the closer of the following set of functional dependencies for a relation scheme. R(A,B,C,D,E,F,G,H), F={ AB→C, BD→EF, AD→G, A→H} and List the candidate keys of R. | L5 | CO4 | [8M] |

15 Define the ACID properties of database transactions. Discuss why these properties are essential for ensuring reliable transaction processing.

L4 CO5 [8M]

OR

16 What are concurrent executions of transactions? How does serializability ensure consistent database state in a production environment?

L3 CO5 [8M]

17 Describe B+ tree architecture and its advantages in indexing large datasets, particularly for range queries.

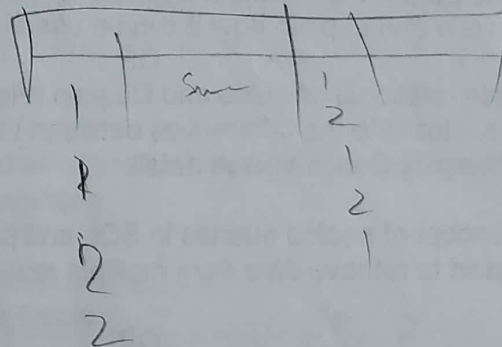
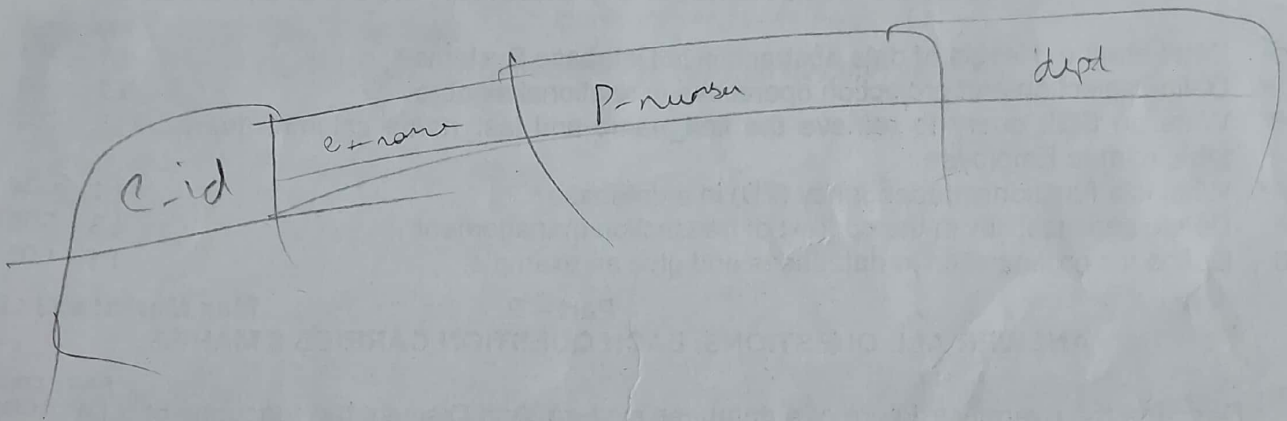
L4 CO6 [8M]

OR

18 What is Indexing? Differentiate the types of Indexing techniques.

L3 CO6 [8M]

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	f	name	dept
1	An	Mohd	dept
1	An	Scien	Scin
2	S	Mohd	
2	S	Scin	

Code No:9ZC01

Date: 14-August-2024 (FN)

B.Tech II-Year II- Semester External Examination, August-2024 (Regular)

BUSINESS ECONOMICS AND FINANCIAL ANALYSIS (CSE,IT,ECM,CS,AI ML,DS,IOT)

Time: 3 Hours

Max.Marks:60

Note: a) No additional answer sheets will be provided.
 b) All sub-parts of a question must be answered at one place only, otherwise it will not be valued.
 c) Missing data can be assumed suitably.

Bloom's Cognitive Levels of Learning (BCLL)

Remember	L1	Apply	L3	Evaluate	L5
Understand	L2	Analyze	L4	Create	L6

Part - A

Max.Marks: 6x2=12

ANSWER ALL QUESTIONS, EACH QUESTION CARRIES 2 MARKS.

- | | | | | | |
|---|--|-----------------------------------|------|-------|-------|
| 1 | Define Cross elasticity of demand. | <i>cross demand / price level</i> | BCLL | CO(s) | Marks |
| 2 | What are the two inputs you would consider for production function with two variable inputs? | <i>Capital & labour</i> | L2 | CO1 | [2M] |
| 3 | What is fixed cost? | | L2 | CO2 | [2M] |
| 4 | Distinguish between Journal and Ledger. | | L2 | CO3 | [2M] |
| 5 | What is Net Profit Ratio? | | L2 | CO4 | [2M] |
| 6 | Write formulae for Gross Profit Ratio. | | L2 | CO5 | [2M] |
| | | | L1 | CO6 | [2M] |

Part - B

Max.Marks: 6x8=48

ANSWER ALL QUESTIONS. EACH QUESTION CARRIES 8 MARKS.

- | | | | | | |
|----|--|--|------|-------|-------|
| 7. | Explain Law of Demand. Write its exceptions. | | BCLL | CO(s) | Marks |
| | OR | | L2 | CO1 | [8M] |
| 8 | What is Elasticity of Demand? Explain the types of elasticity of demand. | | L2 | CO1 | [8M] |
| 9. | Describe the BEP with the help of diagram. | | L3 | CO2 | [8M] |
| | OR | | L2 | CO2 | [8M] |
| 10 | Explain internal and external economies of scale. | | L2 | CO2 | [8M] |
| 11 | Define Monopoly. Write features of monopoly. | | L2 | CO3 | [8M] |
| | OR | | L2 | CO3 | [8M] |
| 12 | Define cost and explain the different types of cost. | | L2 | CO3 | [8M] |
| 13 | a) What are the types of accounts and what are the rules governing them? | | L2 | CO4 | [8M] |
| | b) Explain double entry system of accounting. | | L2 | | |
| | OR | | | | |
| 14 | Journalize the following transactions | | L5 | CO4 | [8M] |

Date	Particular	Rs
01st Jan 2019	Mohan commenced business ✓	50,000
03rd Jan	Purchased goods <i>cash</i> ✓	2,000
05th Jan	Sold goods to Tarun <i>cash</i> ✓	20,000
08th Jan	Cash deposited into bank ✓	8,000
15th Jan	Paid rent to land lord ✓	5,000
17th Jan	Commission received <i>cash</i> ✓	450
25th Jan	Paid salaries ✓	5,000
28th Jan	cash withdrawn from the bank	3,000

D - here
C - give
D - what come in
C - what go out
D - exp - loss
C - gain profit

- 15 a) What is a balance sheet and why is it prepared?
b) Explain Revenue and Capital Expenditure.

L2 CO5 [8M]

L2

OR

- 16 From the following Trial balance & additional information, you are required to prepare final accounts as on 31st December 2018.

L4 CO5 [8M]

Particulars	Debit (Rs)	Credit (Rs)
Capital		20,000
Sundry Debtors	5,400	
Drawings	1,800	
Machinery	7,000	
Sundry Creditors		2,800
Wages	10,000	
Purchases	19,000	
Opening stock	4,000	
Bank Balance	3,000	
Carriage inwards	300	
Salaries	400	
Rent & taxes	900	
Sales		29,000
	51,800	51,800

16300

Additional Information:

- ① Closing stock Rs. 1200
- ② Outstanding rent & taxes Rs. 100
- ③ Charge depreciation on Machinery @ 10% p.a.
- ④ Wages prepaid Rs. 400

2.48302 0.9586

- 17 From the following information calculate Current ratio, Quick ratio and write interpretation.

L4 CO6 [8M]

Particulars	Rs.	Particulars	Rs.
Bills payable (C.A)	45,000	Stock (C.A)	2,50,000
Cash at bank (C.A)	39,000	Sundry Debtors (C.A)	1,00,000
Sundry creditors (C.A)	1,00,000	Bills Receivable (C.A)	10,000
Land	1,25,000	Buildings	2,50,000

OR

- 18 Define Ratio. Explain different Types of Ratios.

L4 CO6 [8M]

32900

30200

-- 00 -- 00 --
4800

-2700

16300

Code No:9CC54

Date: 20-August-2024 (FN)

B.Tech II-Year II- Semester External Examination, August-2024 (Regular)

COMPUTER ORGANIZATION (CSE and IT)

Time: 3 Hours

Max.Marks:60

Note: a) No additional answer sheets will be provided.
 b) All sub-parts of a question must be answered at one place only, otherwise it will not be valued.
 c) Missing data can be assumed suitably.

Bloom's Cognitive Levels of Learning (BCLL)

Remember	L1	Apply	L3	Evaluate	L5
Understand	L2	Analyze	L4	Create	L6

Part - A

Max.Marks: 6x2=12

ANSWER ALL QUESTIONS, EACH QUESTION CARRIES 2 MARKS.

- 1 Explain about the Bus structure.
- 2 Define register transfer language.
- 3 Discuss about control memory.
- 4 Define microprocessor.
- 5 Define Macro.
- 6 Define interrupt service routine.

BCLL	CO(s)	Marks
L6	CO1	[2M]
L1	CO2	[2M]
L2	CO3	[2M]
L1	CO4	[2M]
L1	CO5	[2M]
L1	CO6	[2M]

Part - B

Max.Marks: 6x8=48

ANSWER ALL QUESTIONS. EACH QUESTION CARRIES 8 MARKS.

7. Discuss the functional units of a digital computer and show their interconnections.
 OR

BCLL	CO(s)	Marks
L2	CO1	[8M]

- 8 State the floating point representation. Explain the IEEE standards for floating point representation with example.

L1	CO1	[8M]
----	-----	------

9. Explain various shift micro operations.
 OR

L6	CO2	[8M]
----	-----	------

- 10 Draw and explain the flow chart for memory reference instructions.

L1	CO2	[8M]
----	-----	------

- 11 Explain how the address sequencing in micro programmed control unit.
 OR

L1	CO3	[8M]
----	-----	------

- 12 Explain the flow chart for addition operation with sign-magnitude data.

L6	CO3	[8M]
----	-----	------

- 13 Define Flag. Explain the different Flags present in 8086 processor along with Flag register.
 OR

L1	CO4	[8M]
----	-----	------

- 14 Define addressing mode and explain the different addressing modes presented in 8086 Microprocessor with examples.

L1	CO4	[8M]
----	-----	------

- 15 Discuss various Assembler directives available in 8086 programming.
 OR

L2	CO5	[8M]
----	-----	------

- 16 Write an 8086 program to add two 16 bit numbers in CX and DX and store the result in location 0500H addressed by DL.

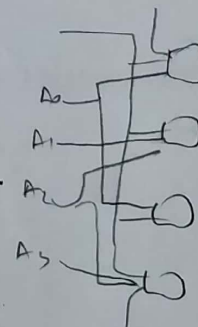
L1	CO5	[8M]
----	-----	------

- 17 Draw and explain each signal function of 8086.
 OR

L1	CO6	[8M]
----	-----	------

- 18 Explain the architecture of 8255 PPI.

L6	CO6	[8M]
----	-----	------



$$-A + (B)$$

-- 00 -- 00 --

$$A + B =$$

$$-A + (-B)$$



Code No:9HC05

Date: 22-August-2024 (FN)

B.Tech II-Year II- Semester External Examination, August-2024 (Regular)
ENVIRONMENTAL SCIENCE (CE,EEE,ME,ECE,CSE,IT,CS,AI ML,DS,IOT)

Time: 3 Hours

Max.Marks:60

- Note: a) No additional answer sheets will be provided.
b) All sub-parts of a question must be answered at one place only, otherwise it will not be valued.
c) Missing data can be assumed suitably.

Bloom's Cognitive Levels of Learning (BCLL)

Remember	L1	Apply	L3	Evaluate	L5
Understand	L2	Analyze	L4	Create	L6

Part - A

Max.Marks: 6x2=12

ANSWER ALL QUESTIONS, EACH QUESTION CARRIES 2 MARKS.

- | | BCLL | CO(s) | Marks |
|---|------|-------|-------|
| 1 What is meant by bioaccumulation? | L1 | CO1 | [2M] |
| 2 Name some alternate energy sources | L2 | CO2 | [2M] |
| 3 Define hotspots of biodiversity. | L1 | CO3 | [2M] |
| 4 Differentiate primary and secondary pollutants. | L1 | CO4 | [2M] |
| 5 Define sustainable development. | L1 | CO5 | [2M] |
| 6 Elaborate EIA. | L4 | CO6 | [2M] |

Part - B

Max.Marks: 6x8=48

ANSWER ALL QUESTIONS. EACH QUESTION CARRIES 8 MARKS.

- | | BCLL | CO(s) | Marks |
|--|------|-------|-------|
| 7 What is ecosystem? describe structure of ecosystem?
OR | L2 | CO1 | [8M] |
| 8 Discuss nitrogen cycle with a neat Sketch. | L3 | CO1 | [8M] |
| 9 Differentiate renewable, non renewable resources?
OR | L2 | CO2 | [8M] |
| 10 Write benefits and problems of dams? | L2 | CO2 | [8M] |
| 11 "India is a mega biodiversity nation? Discuss.
OR | L1 | CO3 | [8M] |
| 12 Explain hotspots of biodiversity in India? | L2 | CO3 | [8M] |
| 13 Examine the Global warming and its effects.
OR | L3 | CO4 | [8M] |
| 14 Explain noise pollution? | L2 | CO4 | [8M] |
| 15 Analyze threats to sustainable development.
OR | L4 | CO5 | [8M] |
| 16 Interpret Clean development mechanisms. | L3 | CO5 | [8M] |
| 17 Discuss Legal aspects of air Act 1981.
OR | L3 | CO6 | [8M] |
| 18 Give a detailed account on concepts of Environmental Management Plan (EMP). | L2 | CO6 | [8M] |

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