

Reg. No.:

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**G.T.N. ARTS COLLEGE SELF FINANCE
(AUTONOMOUS)**

(Affiliated to Madurai Kamaraj University || Accredited with 'B' Grade by NAAC)

END SEMESTER EXAMINATION - NOVEMBER - 2021

(UNDER OUTCOME BASED EDUCATION (OBE) PATTERN)

Programme : B.Sc. Information Technology
Course Code : 20UITC11
Course Title : Introduction to Programming

Date : 18.02.2022

Time : 10:00 AM - 1:00 PM

Max. Marks : 60

Q. No.	SECTION - A (10 * 1 = 10 Marks) Answer ALL Questions	CO(s)	K - Level
1.	The OS which is not based on Linux is _____.	CO1	K1
	1.BSD 2.Ubuntu 3.centos 4.Redhat		
2.	Each process in the system has a unique _____,	CO1	K2
	1.pidentity 2.processidentity 3.proid 4.pid		
3.	The function that returns no value is called _____ function.	CO2	K1
	1.Main 2.return 3.calling 4.void		
4.	In a statement a text, individual words and punctuation marks are called _____.	CO2	K2
	1.Operators 2.Keywords 3.Tokens 4.Constants		
5.	An array elements are always stored in _____ memory locations.	CO3	K1
	1.Random 2.Random and Sequential 3.Sequential 4.Dynamic		
6.	_____ is a user defined data type in C.	CO3	K2
	1.int 2.float 3.char 4.enum		
7.	Structure written inside another structure is called as _____ of two structures.	CO4	K1
	1.comparing 2.copying 3.nesting 4.looping		
8.	_____ and _____ share a similar syntax.	CO4	K2
	1. Structure 2. Union 3. Arrays 4. Pointers 1.3 and 4 2.1 and 2 3.1 and 3 4.2 and 4		
9.	_____ is the output of c programs with arrays and pointers.	CO5	K1
	int main()		



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END SEMESTER EXAMINATION - NOVEMBER - 2021

(UNDER OUTCOME BASED EDUCATION (OBE) PATTERN)

Programme : B.B.A.

Date : 17.02.2022

Course Code : 20UITN11

Time : 10:09 AM - 12:00 PM

Course Title : Fundamentals of Information Technology

Max. Marks : 30

SECTION - A (5 * 3 = 15 Marks)

Answer ALL Questions

Q. No.	SECTION - A (5 * 3 = 15 Marks) Answer ALL Questions	CO(s)	K - Level
1. (a)	Recall versatility.	CO1	K1
	[OR]		
(b)	Identify the function of the memory.	CO1	K1
2. (a)	Illustrate the types of memory and its uniqueness.	CO2	K2
	[OR]		
(b)	Express Memory cache.	CO2	K2
3. (a)	Recognize the uses of the plotter.	CO3	K1
	[OR]		
(b)	State the functions of Digital Camera.	CO3	K1
4. (a)	Describe application software.	CO4	K2
	[OR]		
(b)	Describe working principles of real – time operating system.	CO4	K2
5. (a)	Write a brief notes about star topology.	CO5	K3
	[OR]		
(b)	Examine the function of domain name.	CO5	K3

SECTION - B (3 * 5 = 15 Marks)

Answer any of 3

Q. No.	SECTION - B (3 * 5 = 15 Marks) Answer any of 3	CO(s)	K - Level
6.	Describe the characteristic of computer.	CO1	K1
7.	Tabulate the characteristics of RAM and ROM.	CO2	K1
8.	Discuss the types of printers and its functions.	CO3	K2
9.	Explain the concept of image processor elaborately.	CO4	K2
10.	How can you apply the internet for the current scenario?	CO5	K3

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END SEMESTER EXAMINATION - NOVEMBER - 2021

(UNDER OUTCOME BASED EDUCATION (OBE) PATTERN)

Programme : B.Com
Course Code : 20UVEV11
Course Title : Value Education

Date : 16.02.2022

Time : 10:00 AM - 12:00 PM

Max. Marks : 30

Q. No.	SECTION - A (5 * 3 = 15 Marks) Answer ALL Questions	CO(s)	K - Level
1. (a)	Identify the Philosophy of Values. மதிப்புகளின் தத்துவத்தைக் கூறுக. [OR]	CO1	K1
(b)	Write a note on Self-initiative. சுய முயற்சியைப் பற்றிக் குறிப்பு எழுதுக.	CO1	K1
2. (a)	Write any three importance of 'Courage in Sikhism'. தேரீயத்தை வளர்ப்பதற்கு சீக்கியம் குறிப்பிடும் மூன்று முக்கியக் காரணிகளைக் குறிப்பிடுக. [OR]	CO2	K1
(b)	List out the actions that students should follow for religious harmony. சமய நல்லிணக்கத்திற்கு மாணவர்கள் ஆற்ற வேண்டியவற்றைப் பட்டியலிடுக	CO2	K1
3. (a)	Explain the term "Society". சமூகம் - விளக்குக. [OR]	CO3	K2
(b)	Outline the role of Human Rights Council. மனித உரிமைகள் பேரவையின் பங்கைக் கோட்டுக் காட்டுக.	CO3	K2
4. (a)	Define "Honesty". "நேர்மை" வரையறு. [OR]	CO4	K2
(b)	Explain Transparency. வெளிப்படாத தன்மை அல்லது துலாம்பரத்தன்மையை விளக்குக.	CO4	K2
5. (a)	Classify the Role model. முன்மாதிரியை வகைப்படுத்துக. [OR]	CO5	K2
(b)	Classify Mass Media. வெகுஜன ஊடகங்களை வகைப்படுத்துக.	CO5	K2

Q. No.	SECTION - B (3 * 5 = 15 Marks) Answer any of 3	CO(s)	K - Level
6.	Describe Courage and anyone of its theories. தேரீயம் மற்றும் அதன் கோட்பாடுகளுள் ஏதேனும் ஒன்றினை விவரிக்க.	CO1	K2

- | | | | |
|-----|--|-----|----|
| 7. | Explain the practices in Sikhism.
சீக்கிய மதத்தின் நடைமுறைகளை விளக்குக | CO2 | K2 |
| 8. | Illustrate the Forms of Democracy.
ஐனநாயகத்தின் வடிவங்களைக் கட்டமைக்க. | CO3 | K3 |
| 9. | How to build your willingness to learn in professional.
தொழில்சார்ந்த துறைகளைக் கற்றுக்கொள்ளும் விருப்பத்தை உருவாக்கும் முறைகளை விரித்துரைக்க | CO4 | K2 |
| 10. | Illustrate the importance to maintain individual Dignity.
தனிமனித கண்ணியத்தைப் பேணுவதன் முக்கியத்துவத்தை ஆய்க. | CO5 | K3 |

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END SEMESTER EXAMINATION - NOVEMBER - 2021

(UNDER OUTCOME BASED EDUCATION (OBE) PATTERN)

Programme : B.A. Tamil

Course Code : 20UITN21

Course Title : E - Commerce

Date : 07.02.2022

Time : 2:00 PM - 4:00 PM

Max. Marks : 30

Q. No.	SECTION - A (5 * 3 = 15 Marks) Answer ALL Questions	CO(s)	K - Level
1. (a)	Describe Quick Response Retailing.	CO1	K1
	[OR]		
(b)	Define set-top boxes.	CO1	K1
2. (a)	Explain Internet and WWW tools which aid e-commerce.	CO2	K2
	[OR]		
(b)	Rewrite a short note on Router.	CO2	K2
3. (a)	Enumerate Quick Response and EDI.	CO3	K1
	[OR]		
(b)	Tell the Smart Card applications.	CO3	K1
4. (a)	Explain about Document constituencies.	CO4	K2
	[OR]		
(b)	Compare Data Mining and Data Warehouses.	CO4	K2
5. (a)	Apply Gopher in your own example.	CO5	K3
	[OR]		
(b)	Record Information Filtering in various fields.	CO5	K3
Q. No.	SECTION - B (3 * 5 = 15 Marks) Answer any of 3	CO(s)	K - Level
6.	Define Anatomy of E-Commerce applications	CO1	K1
7.	Express the scope of the Internet and web technologies in E-commerce in India.	CO2	K2
8.	Explain about Purchase presentation phase.	CO3	K2
9.	Show how to utilize Computer based education.	CO4	K2
10.	Illustrate the Types of Digital Documents.	CO5	K3



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END SEMESTER EXAMINATION - NOVEMBER - 2021
(UNDER OUTCOME BASED EDUCATION (OBE) PATTERN)

Reg. No.:

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Programme : B.A. History
Course Code : 20UEGS21
Course Title : Environment and Gender Studies

Date : 05.02.2022
Time : 2:00 PM - 4:00 PM
Max. Marks : 30

Q. No.	SECTION - A (5 * 3 = 15 Marks) Answer ALL Questions	CO(s)	K - Level
1 (a)	Illustrate the Environmental impacts of petroleum products. பெட்ரோலிய பொருட்களின் சுற்றுச்சூழல் பாதிப்புகளை வெளிகொணரக் [OR]	CO3	K2
(b)	Outline Geothermal Energy. புவிவெப்ப ஆற்றலை கோடிட்டுக் காட்டுக.	CO3	K2
2 (a)	Compare Renewable energy resources and Non - Renewable energy resources. புதுப்பிக்கத்தக்க எரிசக்தி வளங்களையும் புதுப்பிக்க முடியாத ஆற்றல் வளங்களையும் ஒப்பிடுக [OR]	CO4	K2
(b)	What is Environmental pollution? State its causes. சுற்றுச்சூழல் மாசுபாடு என்றால் என்ன? அதன்காரணங்களைக் கூறுக	CO4	K2
3 (a)	Explain the role of hormones and genes in Gender identification. பாலின தீர்மானத்தில் ஹார்மோன்கள் மற்றும் மரபணுக்களின் பங்கு என்ன? [OR]	CO5	K2
(b)	Write down three ways to liberate the LGBTQ+ in your country. உங்கள் நாட்டில் LGBTQ+ ஐ விடுவிக்க மூன்று வழிகளை எழுதுக.	CO5	K2
4 (a)	Write a short note on the need of public awareness about environment? சுற்றுச்சூழல் விழிப்புணர்வு ஏற்படுத்துவதன் அவசியத்தை பற்றி சிறு குறிப்பு வரைக [OR]	CO1	K1
(b)	Write a note on biological environment. உயிரியல் சூழல் குறித்து குறிப்பு எழுதுக	CO1	K1
5 (a)	Explain energy flow from one trophic level to another trophic level. ஒரு வெப்பமண்டல மட்டத்திலிருந்து மற்றொரு வெப்பமண்டல நிலைக்கு ஆற்றல் ஓட்டத்தை விளக்கு [OR]	CO2	K1
(b)	Explain the abiotic components of an Eco system. சுற்றுச்சூழல் அமைப்பில் உயிரற்ற காரணிகளை விளக்குக	CO2	K1
Q. No.	SECTION - B (3 * 5 = 15 Marks) Answer any of 3	CO(s)	K - Level
6.	Discuss the scope of environment. சுற்றுச்சூழலின் நோக்கத்தைப் பற்றி விவாதிக்கவும்.	CO1	K2
7.	Briefly explain living components. வாழும் கூறுகளை சுருக்கமாக விளக்கவும்.	CO2	K2
8.	Write a note on agricultural waste. விவசாய கழிவுகள் பற்றிய குறிப்பு எழுதவும்.	CO3	K3
9.	Bring out the effects of depletion of natural resources. இயற்கை வளங்களின் வீழ்ச்சியின் விளைவுகளை வெளிகொணரக்	CO4	K2
10.	Explain the following terms. 1. Gender identity 2. Gender roles 3. Gender discrimination	CO5	K3

4. Gender inequality

பின்வரும் விதிமுறைகளை விளக்குங்கள்.

1. பாலின அடையாளம்
2. பாலின பாத்திரங்கள்
3. பாலின பாகுபாடு
4. பாலின சமத்துவமின்மை

- 1. Concurrency
- 2. Deadlock
- 3. Backup
- 4. Recovery

10. To maintain transactional integrity and database consistency, the DBMS deploy _____ CO5 K1
technology.

- 1. Triggers
- 2. Pointers
- 3. Locks
- 4. Cursors

Q. No. SECTION - B (5 * 4 = 20 Marks) CO(s) K - Level
Answer ALL Questions

11. (a) Define the three levels of data abstraction. CO1 K1

[OR]

(b) List four significant difference between a file-processing system and DBMS. CO1 K1

12. (a) Judge the intersect operation and Except operation CO2 K3

[OR]

(b) Predict the given number is Even or Odd by implementing in and out Procedure in PLSQL. CO2 K3

13. (a) Discuss the significance of cardinality ratio. CO3 K2

[OR]

(b) Show 4NF in Normal form in Normalization. CO3 K2

14. (a) Describe the different types of file organization? Explain using a sketch of each of them with CO4 K1
their advantages and disadvantages.

[OR]

(b) Describe the ordered indices with example. CO4 K1

15. (a) Explain short notes on: CO5 K2
i) Transaction concept.
ii) Deadlock.

[OR]

(b) Describe consistency and show why it is important? Explain with an example. CO5 K2

Q. No. SECTION - C (3 * 10 = 30 Marks) CO(s) K - Level
Answer any of 3

16. Describe about Views of data and State what are the functions of database administrator? CO1 K1

17. Construct the relational table given below and answer the following SQL queries. CO2 K3
Employee(Empno, Name, Department, Salary).

- (i) List all the employees whose name starts with the letter 'L'.
- (ii) Find the maximum salary given to employees in each department.
- (iii) Find the number of employees working in 'accounts' department.
- (iv) Find the second maximum salary from the table.
- (v) Find the employee who is getting the minimum Salary.

18. Explain Functional dependency and trivial functional dependency with examples. CO3 K2

19. Discuss briefly about B+ tree index file with example. CO4 K2

20. Write about Concurrency Control? Explain it in terms of locking mechanism and two phase CO5 K3
Commit Protocol.

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END SEMESTER EXAMINATION - NOVEMBER - 2021

(UNDER OUTCOME BASED EDUCATION (OBE) PATTERN)

Programme : B.Sc. Information Technology

Course Code : 20UITC32

Course Title : Data Structure and Computer Algorithms

Date : 08.02.2022

Time : 10:00 AM - 1:00 PM

Max. Marks : 60

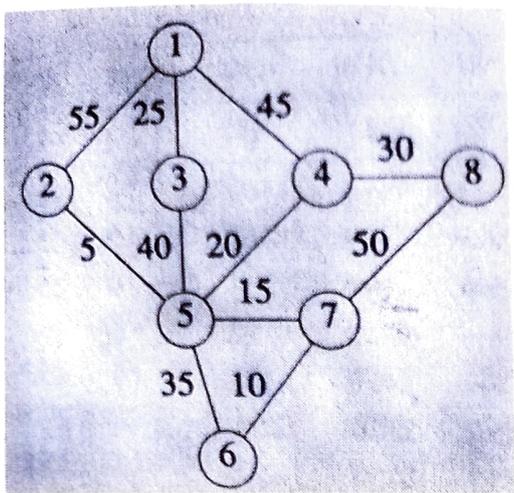
Q. No.	SECTION - A (10 * 1 = 10 Marks) Answer ALL Questions	CO(s)	K - Level
1.	_____ is the logical or mathematical model of a particular organization of data. 1. Structure 2. Variable 3. Function 4. Data Structure	CO1	K1
2.	An Array is _____. 1. A Data structure that shows a hierarchical behavior 2. Container of objects of similar type 3. Arrays are immutable once initialized 4. Array is not a Data structure	CO1	K1
3.	LIFO stands for _____. 1. Late In First Out 2. Last In First Out 3. Light In Figure Out 4. Late In Figure Out	CO2	K1
4.	Tell the result of evaluating postfix expression 5,4,6,+,*,4,9,3,/,+,* . 1. 600 2. 350 3. 650 4. 588	CO2	K1
5.	The time complexity of level order traversal is _____. 1. O(1) 2. O(n) 3. O(logn) 4. O(nlogn)	CO3	K1
6.	A threaded binary tree traversal is _____. 1. A binary tree traversal using stack 2. A binary tree traversal using queue 3. A binary tree traversal using stack and queue 4. A binary tree traversal without using stack and queue	CO3	K2
7.	An algorithm can't be represented through _____. 1. Flow chart 2. Pseudo code 3. Instruction in common language 4. syntax	CO4	K1
8.	When an algorithm is written in the form of a programming language, it becomes a _____. _____	CO4	K2

- 1.Flowchart
2.Program
3.Pseudo code
4.Syntax

9. The knapsack problem is an example of _____ CO5 K1
1.Greedy algorithm
2.2D dynamic programming
3.1D dynamic programming
4.Divide and conquer
10. Every graph has how many number of minimum spanning tree? CO5 K2
1.1
2.0
3.2
4.One or more

Q. No.	SECTION - B (5 * 4 = 20 Marks) Answer ALL Questions	CO(s)	K - Level
11. (a)	Describe how the following operations are performed in linked list? a. Insertion b. Deletion	CO1	K1
	[OR]		
(b)	Describe the storage structure of Array.	CO1	K1
12. (a)	Discuss Stack applications in detail.	CO2	K2
	[OR]		
(b)	Summarize the types of Trees.	CO2	K2
13. (a)	Explain Skew Tree with Example.	CO3	K2
	[OR]		
(b)	Explain the following tree traversal with examples. a. Preorder b. Posorder	CO3	K2
14. (a)	Apply Binary Search Algorithm on your own example.	CO4	K3
	[OR]		
(b)	Report the steps involved in Quick Sort.	CO4	K3
15. (a)	Let $n=4$, $(p1,p2,p3,p4)=(100,10,15,27)$ and $(d1,d2,d3,d4)=(2,1,2,1)$, produce a feasible solution for the above job scheduling.	CO5	K3
	[OR]		
(b)	Write a note on minimum cost spanning tree.	CO5	K3

Q. No.	SECTION - C (3 * 10 = 30 Marks) Answer any of 3	CO(s)	K - Level
16.	Tabulate the advantages and disadvantages of linked list over Array.	CO1	K1
17.	Illustrate the routine for Push and Pop operations on Stack.	CO2	K2
18.	Review the steps to convert a general Tree into Binary Tree.	CO3	K2
19.	Write a detail note on analysis of Algorithm.	CO4	K3
20.	Compute the minimum cost spanning tree for the given graph using Prim's Algorithm.	CO5	K3



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G.T.N. ARTS COLLEGE (AUTONOMOUS)

DINDIGUL – 624 005

(Affiliated to Madurai Kamaraj University)

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END SEMESTER EXAMINATIONS – NOVEMBER 2021

Programme: All Second Year UG

Course Code: 20USSS31

Course Title: Soft Skills - I

Date: 12.02.2022

Time: 2 pm – 4 pm

Max. Marks: 50

SECTION – A

[5 X 4 = 20]

Answer any FIVE Questions.

1. Differentiate between soft skills and hard skills.
2. Define positive self talk.
3. What is a goal? Give some examples for goal setting.
4. How to achieve goals with commitment?
5. Describe the Time Stealers.
6. Define Emotional Intelligence.
7. How would an able leader manage a crisis in his/her organization?
8. What is social consciousness?

SECTION – B

[3 X 10 = 30]

Answer Any THREE Questions.

9. Write an essay on Soft Skills competencies.
10. List the useful guidelines for goal setting.
11. Explain the strategies for effective time management.

12. Elucidate the qualities of a leader.

13. What is environmental consciousness? and How do social entrepreneurs help the environment?

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DINDIGUL – 624 005

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END SEMESTER EXAMINATIONS – NOVEMBER 2021

Programme: All Second Year UG

Course Code: 20USSS31

Course Title: Soft Skills - I

Date: 12.02.2022

Time: 2 pm – 4 pm

Max. Marks: 50

SECTION – A

[5 X 4 = 20]

Answer any FIVE Questions.

1. Differentiate between soft skills and hard skills.
2. Define positive self talk.
3. What is a goal? Give some examples for goal setting.
4. How to achieve goals with commitment?
5. Describe the Time Stealers.
6. Define Emotional Intelligence.
7. How would an able leader manage a crisis in his/her organization?
8. What is social consciousness?

SECTION – B

[3 X 10 = 30]

Answer Any THREE Questions.

9. Write an essay on Soft Skills competencies.
10. List the useful guidelines for goal setting.
11. Explain the strategies for effective time management.

12. Elucidate the qualities of a leader.

13. What is environmental consciousness? and How do social entrepreneurs help the environment?

5. TELNET used _____ protocols for data connection.

- [a] TCP [b] UDP
[c] IP [d] DHCP

6. _____ is a way to identify and locate computers connected to internet

- [a] DNS [b] TCP
[c] IP [d] None

7. What tag is used for hyper link?

- [a] <I> [b]
[c] <a> [d] <u>

8. _____ image file format supports 256 colors

- [a] BMP [b] PNG
[c] JPEG [d] GIF

9. Cell padding is _____.

- [a] used to space between cells
[b] used to separate cell walls from their contents
[c] Both (a)&(b) above
[d] Used to provide width to a cell

10. The _____ button is used at the end of the user input.

- [a] Set [b] Reset
[c] Submit [d] OK

SECTION - B
Answer ALL the Questions.

11. a) Explain the parts of a computer.

[OR]

b) Explain the Classification of Computers.

12. a) Describe the magnetic tapes & its function with diagram.

[OR]

b) Distinguish RAM & ROM.

13. a) Discuss on Inkjet and Laser printers

[OR]

b) Write about web pages and web browsers

14. a) Explain any five tags in detail.

[OR]

b) Explain about List.

15. a) What are framesets? Design a webpage using frameset.

[OR]

b) Explain the method attributes and write down its code.

SECTION - C

[3 X 10 = 30]

Answer Any THREE Questions.

16. Describe about CPU, Memory and Registers of a computer system

17. What are input device? and discuss about the various input devices.

18. Explain about the types of networks and topology in detail.

19. Describe about ordered and unordered list with examples

20. Create a static webpage which defines which defines all text formatting tags of HTML in tabular format.

SECTION – C

[3 X 10 = 30]

Answer Any THREE Questions.

16. Describe any five basic concepts of Object Oriented Programming.
17. Illustrate the concept of Multiple Constructors in a class.
18. Discuss about Overloading Unary Operators in C++ with an example.
19. Explain in detail about virtual function and polymorphism with example.
20. How to Open multiple Files using Open() function in C++?

Reg. No:

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G.T.N. ARTS COLLEGE (AUTONOMOUS)

DINDIGUL - 624005

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END SEMESTER EXAMINATION –NOVEMBER2021

Programme : B.Sc.(IT)

Date : 16.02.2022

Course Code: 17UITC31

Time : 10 am. to 1 pm.

Course Title : Object Oriented

Max. Marks :75

Programming in C++

SECTION – A

[10 X 1 = 10]

Answer ALL the Questions.

Choose the Correct Answer.

1. The feature by which one object can interact with another object is _____.
[a] Data Transfer [b] Data Binding
[c] Message Passing [d] Message Reading
2. An inline function is expanded during _____.
[a] Compile time [b] Run Time
[c] Never expanded [d] end of the program
3. In C++, the class variables are called as _____.
[a] Functions [b] Constants
[c] Objects [d] Methods

18. How to insert an element in a Binary Search Tree?

19. Explain in detail about Bubble Sort.

20. Discuss the representation of Graphs.



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END SEMESTER EXAMINATION –NOVEMBER 2021

Programme :B.Sc.(IT)

Course Code:17UITC32

Course Title :Data Structures

Date : 17.02.2022

Time: 10 am. to 1 pm.

Max. Marks :75

SECTION – A

[10 X 1 = 10]

Answer ALL the Questions.

Choose the Correct Answer

1. How to measure the space factor for analyse an algorithm?

[a] To count the maximum memory required by the algorithm.

[b] To count the minimum memory required by the algorithm.

[c] To count the average memory required by the algorithm.

[d] To count the maximum disk space required by the algorithm.

2. In a circular linked list _____.

[a] components are all linked together in some sequential manner.

[b] there is no beginning and no end.

[c] components are arranged hierarchically.

[d] forward & backward traversal within the list is permitted.

3. Process of inserting an element in stack is called _____.

[a] Create

[b] Push

[c] Evaluation

[d] POP

4. A queue follows _____.

[a] FIFO

[b] LIFO

[c] Ordered array

[d] Linear tree

5. The number of edges from the root to the node is called _____ of the tree.

[a] Height

[b] Depth

[c] Length

[d] Width

6. What is the speciality about the inorder traversal of a Binary Search Tree?

[a] It traverses in a non-increasing order.

[b] It traverses in an increasing order.

[c] It traverses in a random fashion.

[d] It traverses based on priority of the node.

7. Which of the following sorting algorithm is best suited if the elements are already sorted?

[a] Heap sort

[b] Quick sort

[c] Insertion sort

[d] Merge sort

8. Which of the following algorithm design technique is used in the quick sort algorithm?

[a] Dynamic programming

[b] Backtracking

[c] Divide and Conquer

[d] Greedy method

9. A Connected graph T without any cycles is called _____.

[a] a tree graph

[b] free tree

[c] a tree

[d] all of the above

10. _____ data structure is used to implement depth First Search.

[a] Stack

[b] Queue

[c] Circular Queue

[d] Linked list

SECTION – B

[5 X 7 = 35]

Answer ALL the Questions.

11. a) What is an abstract data type (ADT)? Give an example.

[OR]

b) What is meant by Modular design? What are its advantages?

12. a) Write notes on Complete Binary Tree.

[OR]

b) Discuss about Binary Tree Traversals.

13. a) Explain Tower of Hanoi problem with algorithm and diagrams.

[OR]

b) Write an algorithm to insert and delete an element into the queue.

14. a) Explain Insertion Sort with an example.

[OR]

b) How Quick Sort algorithm works?

15. a) Write an algorithm for Breadth First Search.

[OR]

b) Write short notes on Minimum Spanning Tree.

SECTION – C

[3 X 10 = 30]

Answer Any THREE Questions.

16. Describe the concept of Linked list in detail.

17. Illustrate an array implementation of stack.

17. Explain about Half adder and Full adder by examples

18. Write about the following:

i) Exclusive-OR gate

ii) Demultiplexer

19. . Describe about Hard-wired control unit with diagram

20. Explain about addressing modes.



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END SEMESTER EXAMINATION –NOVEMBER 2021

Programme : B.Sc. IT

Course Code: 17UITA31

Course Title : Digital Principles and Computer

Organization

Date : 18.02.2022

Time : 10 am. to 1 pm.

Max. Marks : 75

SECTION – A

[10 X 1 = 10]

Answer ALL the Questions.

Choose the Correct Answer.

1. How many nibbles are there in 010111110101 ?

[a] 2

[b] 3

[c] 4

[d] 1

2. Which of the following is a Universal Logic Gate?

[a] OR

[b] AND

[c] XOR

[d] NAND

3. The expression $Y=AB+BC+AC$ shows the _____ operation.

[a] Ex-OR

[b] SOP (Sum of Product)

[c] NOR

[d] POS (Product of Sum)

4. Perform binary addition: $101101 + 011011 =$ _____.

[a] 011010

[b] 1010100

[c] 101110

[d] 1001000

5. What is a multiplexer?

- [a] It is a type of decoder which decodes several inputs and gives one output.
- [b] It is a circuit which converts many signals into one
- [c] It takes one input and results into many output.
- [d] It is a type of encoder which decodes several inputs and gives one output.

6. The BCD number 101011 has _____ parity.

- [a] Even
- [b] Odd
- [c] both even and odd
- [d] undefined

7. During the execution of a program which gets initialized first?

- [a] MDR
- [b] IR
- [c] PC
- [d] MAR

8. The special memory used to store the micro routine are called as _____.

- [a] micro task
- [b] micro operation
- [c] micro instruction
- [d] micro command

9. The addressing mode, where you directly specify the operand value is _____.

- [a] immediate
- [b] direct
- [c] definite
- [d] relative

10. The fastest data access is provided using _____.

- [a] Cache
- [b] DRAM
- [c] SRAM
- [d] Registers

Answer ALL the Questions.

11. a) Convert decimal 108.85 to a binary number.

[OR]

b) Explain OR Gates with two input and three input truth tables.

12. a) Simplify the Boolean equation & describe the logic circuit.

$$Y = \overline{A} \overline{B} C + \overline{A} B \overline{C} + A \overline{B} \overline{C} + A B C$$

[OR]

b) Write short notes on Full Adder.

13. a) Explain Demultiplexer with neat block diagram.

[OR]

b) Discuss about Encoders.

14. a) Describe about computer register for the basic computer

[OR]

b) Show how microprogram sequencer is working with neat diagram

15. a) Differentiate between Pipeline and Parallel processing

[OR]

b) Explain about different Addressing modes by example

Answer Any THREE Questions.

16. Convert the following:

i) $(0.85)_{10} = (?)_2$

ii) $(23.6)_{10} = (?)_2$

iii) $(175)_{10} = (?)_8$

iv) $(C5E2)_{16} = (?)_2$

v) $(1110100101110100)_2 = (?)_{16}$

Reg. No:

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END SEMESTER EXAMINATION – APRIL-2020

Programme : B.Sc. IT **Date : 05.02.2022**
Course Code: 17UITC41 **Time: 2 pm. to 5 pm.**
Course Title : Relational Database **Max Marks : 75**
Management Concept

SECTION – A **[10 X 1 = 10]**

Answer ALL the Questions.

Choose the Correct Answer.

1. _____ is a more abstract, high-level data model that has a good description of the data in an enterprise.

[a] Abstract Data Model	[b] Relational Data Model
[c] Semantic Data Model	[d] Dynamic Data Model

2. Which constraints determine whether two subclasses are allowed to contain the same entity.

[a] Specialized	[b] Generalized
[c] Covering	[d] Overlap

3. The tuple are also called _____.

[a] Entity	[b] Records
[c] Column	[d] Domain

4. TRC stands for _____.

[a] Table Relational Calculus	[b] Tuple Relational Calculus
[c] Tuple Record calculus	[d] Tuple Relational Constrains

5. Through which evaluation strategy SQL query is evaluated ?

- [a] Triggers [b] Conceptial
[c] Query [d] Relational

6. A ____ is a relationship between two attributes.

- [a] Functional Dependency [b] Normalization
[c] Trigger [d] Decomposition

7. In PL/SQL, an error condition is called an _____.

- [a] cursor [b] trigger
[c] packages [d] exception

8. A join dependency is a further generalization of -----

- [a] ABCD [b] FD
[c] MVDs [d] BCD

9. ____ means only authorized users should be allowed to modify data.

- [a] Secrecy [b] Integrity
[c] Availability [d] Mechanism

10. _____ provides the foundation for modern authentication.

- [a] Security [b] Decryption
[c] Authentication [d] Encryption

SECTION – B

[5 X 7 = 35]

Answer ALL the Questions.

11. a) Write notes on the levels of Abstraction in DBMS.

[OR]

b) Describe Entity, Attributes & Entity set with an example.

12. a) Describe how entity set is mapped to relation.

[OR]

b) Write notes on Tuple relational calculus.

13. a) How does SQL build on and extend relational algebra and calculus?

[OR]

b) Explain the Function dependencies.

14. a) Write notes on procedures in PL/SQL.

[OR]

b) Explain triggers in PL/SQL.

15. a) List out the three main objectives of secure database applications.

Explain them in detail.

[OR]

b) Write notes on encryption

SECTION – C

[3 X 10 = 30]

Answer Any THREE Questions.

16. Explain conceptual design with ER model.

17. Write notes on integrity constraints over relations with examples.

18. Discuss on Nested Queries.

19. Write notes on cursors.

20. Discuss on discretionary access control through grant and revoke commands.

4. Application that reads and processes data from a shared object _____.
- [a] process [b] producer
[c] consumer [d] thread
5. A problem encountered in multitasking when a process is perpetually denied necessary resources is called _____.
- [a] deadlock [b] starvation
[c] inversion [d] aging
6. Which of the following scheduling algorithms gives minimum average waiting time?
- [a] SJF [b] FCFS
[c] Round Robin [d] Priority
7. A technique for reducing external fragmentation is called _____.
- [a] coalescing [b] burping the memory
[c] fragmentation [d] memory compaction
8. Effective access time is directly proportional to _____.
- [a] memory access time [b] hit ratio
[c] page fault rate [d] turnaround time
9. The information about all files is kept in _____.
- [a] Swap Space [b] Operating System
[c] Separate Directory Structure [d] Both b & c
10. _____ is a unit of information actually read or writes to disk.
- [a] File control block [b] Super block
[c] Memory block [d] Physical block

SECTION – B
Answer ALL the Questions.

[5 X 7 = 35]

11. a) Explain the operating system goals.
[OR]
b) Write short notes on process states and state transitions.
12. a) Explain about hardware solution to the mutual exclusion problems.
[OR]
b) Explain about Dekker's algorithm for mutual exclusion.
13. a) Explain about Deadlock detection with their types?
[OR]
b) Discuss about Scheduling Criteria?
14. a) Discuss on overlay structure with a neat diagram.
[OR]
b) Explain Least-Recently-Used (LRU) Page Replacement in Virtual memory management.
15. a) Explain about rotational optimization.
[OR]
b) Describe about file system in detail

SECTION – C

[3 X 10 = 30]

Answer Any THREE Questions.

16. Illustrate the concept of Interprocess Communication.
17. Briefly explain about semaphores.

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END SEMESTER EXAMINATION - NOVEMBER 2021

Programme : B.Sc. IT

Date : 08.02.2022

Course Code : 17UITA41

Time : 2 pm. to 5 pm.

Course Title : Numerical Methods

Max Marks :75

SECTION - A

[10 X 1 = 10]

Answer ALL the Questions.

Choose the Correct Answer.

1. $x^3 - 3x + 1 = 0$ has a root lies between _____.

[a] 1 and 2

[b] 0 and 1

[c] 3 and 4

[d] -1 and 0

2. One root of $x^3 - 3x + 1 = 0$ lies between _____ and _____

[a] (1,2)

[b] (-1,0)

[c] (2,3)

[d] (4,5)

3. The coefficient matrix $A = \begin{pmatrix} 1 & 6 & -2 \\ 4 & 1 & 1 \\ -3 & 1 & 7 \end{pmatrix}$ is _____.

[a] diagonally dominant

[b] not diagonally dominant

[c] rectangular matrix

[d] row matrix

- Apply the retrieved attribute values to your view

This section discusses how to define custom attributes and specify their values. The next section deals with retrieving and applying the values at runtime.

Apply Custom Attributes

When a view is created from an XML layout, all of the attributes in the XML tag are read from the resource bundle and passed into the view's constructor as an AttributeSet. Although it's possible to read values from the AttributeSet directly, doing so has some disadvantages:

- Resource references within attribute values are not resolved
- Styles are not applied

Instead, pass the AttributeSet to `obtainStyledAttributes()`. This method passes back a TypedArray array of values that have already been dereferenced and styled.

Add Properties and Events

Attributes are a powerful way of controlling the behavior and appearance of views, but they can only be read when the view is initialized. To provide dynamic behavior, expose a property getter and setter pair for each custom attribute. The following snippet shows how PieChart exposes a property called `showText`

Design for Accessibility

Your custom view should support the widest range of users. This includes users with disabilities that prevent them from seeing or using a touchscreen. To support users with disabilities, you should:

- Label your input fields using the `android:contentDescription` attribute
- Send accessibility events by calling `sendAccessibilityEvent()` when appropriate.
- Support alternate controllers, such as D-pad and trackball

4. If A is diagonally dominant, then the system is said to be a _____.

- [a] converge [b] diverge
[c] dominant [d] diagonal system

5. Stirling's formula is the _____ of Gauss forward and Gauss backward interpolation method.

- [a] addition [b] average
[c] difference [d] multiplication

6. In iterative method, the first approximation to p is _____.

- [a] $p_1 = \frac{1}{\Delta y_0}(y_p - y_0)$ [b] $p_1 = \frac{1}{\Delta y_0}(y_0 - y_p)$
[c] $p_1 = \frac{1}{\Delta y_p}(y_p - y_0)$ [d] $p_1 = \frac{1}{\Delta y_p}(y_0 - y_p)$

7. Central difference formula derived from _____.

- [a] Numerical differentiation [b] Lagrange's interpolation
[c] Newton's formula [d] Stirling's formula

8. The error in Simpson's one third rule is order _____.

- [a] h^2 [b] h^3
[c] h^4 [d] h^6

9. The expansion $y_1 = y_0 + \frac{h}{1!} y_0' + \frac{h^2}{2!} y_0'' + \dots$ is known as

- [a] Taylor's series expansion
[b] Euler's series expansion
[c] Modified Euler's series expansion
[d] Runge-kutta Series

10. In third order Runge-Kutta formula, K_2 is _____.

- [a] $hf(x_0, y_0)$ [b] $hf(x_0 + \frac{h}{2}, y_0 + \frac{k_1}{2})$
[c] $hf(x_0 + h, y_0 + k_1)$ [d] $hf(x_0 + h, y_0 + k_2)$

SECTION – B [5 X 7 = 35]
Answer ALL the Questions.

11. a. Find the real of the equation $x^3 - 3x + 1 = 0$ lying between 1 and 2 correct to 3 places of decimals by using bisection method.

[OR]

b. Find the smallest positive root of $x^2 - \log_e x - 12 = 0$ by Regula Falsi method.

12. a. Using Gaussian elimination method solve the following

$$x + y + z = 9; 2x - 3y + 4z = 13; 3x + 4y + 5z = 40$$

[OR]

b. Using Gauss Jordan method solve the following

$$5x - 2y + 3z = 18; x + 7y - 3z = -22; 2x - y + 6z = 22$$

13. a) If $y(75) = 246$, $y(80) = 202$, $y(85) = 118$, $y(90) = 40$, find $y(79)$.

[OR]

b) Using Lagrange's formula to find the value of y at $x = 6$, from the following data.

x	3	7	9	10
y	168	120	72	63

14. a. Find $\frac{dy}{dx}$ and $\frac{d^2y}{dx^2}$ at $x = 51$ from the following table

x	50	60	70	80	90
y	19.96	36.65	58.81	77.21	94.61

[OR]

b. Evaluate $\int_0^5 \frac{dx}{4x+5}$ by Trapezoidal rule using 11 coordinates.

15. a) Using Taylor's method, find $y(0.1)$ correct to three decimal places from

$$\frac{dy}{dx} + 2xy = 1, y_0 = 0.$$

[OR]

b) Solve $\frac{dy}{dx} = 1-y$, $y(0) = 0$, using Euler's method. Find y at $x = 0.1$ and 0.2 .

16. Find the negative root of $x^3 - 2x + 5 = 0$ correct to three decimal places by the Newton - Raphson method.

17. Solve the following system of equation using Gauss seidel iteration Method.

$$6x + 15y + 2z = 72 ; x + y + 5z = 110 ; 27x + 6y - z = 85$$

18. Tabulate $y = x^3$ for $x = 2, 3, 4, 5$ and calculate the cube root of 10 correct to three decimal places.

19. Evaluate $\int_0^{10} \frac{dx}{1+x^2}$ by using

(i) Trapezoidal rule

(ii) Simpson one third rule

20. Using Runge-Kutta method of 4th order for the differential equation

$$\frac{dy}{dx} = xy + y^2, y(0) = 1. \text{ Compute } y(0.1) \text{ and } y(0)$$

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END SEMESTER EXAMINATION – NOVEMBER 2021

Programme : B.Sc. (IT)

Date: 05.02.2022

Course Code: 17UITC51

Time: 10 am. to 1 pm.

**Course Title : Data Communication and
Computer Networks**

Max. Marks : 75

SECTION – A

[10 X 1 = 10]

Answer ALL the Questions.

Choose the Correct Answer.

1. Communication between a computer and a keyboard involves _____
[a] Simplex [b] Half duplex
[c] Full Duplex [d] None of these
2. Which topology requires a central controller or hub?
[a] Ring [b] Mesh
[c] Bus [d] Star
3. Check sum is used for _____.
[a] Error correction [b] Error detection
[c] Both (a) and (b) [d] None of the above
4. In asynchronous transmission, the gap time between bytes is _____.
[a] fixed [b] a function of the data rate
[c] variable [d] zero

5. Which one of the following is a data link protocol?

- [a] Ethernet [b] Point to Point Protocol
[c] HDLC [d] All of the above

6. Token Bus is physically configured like _____.

- [a] ethernet [b] token Ring
[c] FDDI [d] All of the above

7. In distance vector routing, the updating packets are sent _____.

- [a] periodically [b] When there is a change
[c] Either (a) or (b) [d] Neither (a) nor (b)

8. The Dijkstra algorithm is used in _____ routing to find the shortest path tree.

- [a] distance vector [b] link state
[c] both (a) and (b) [d] neither (a) nor (b)

9. The _____ domains define registered hosts according to their generic behaviour.

- [a] inverse [b] country
[c] generic [d] none of the above

10. The _____ is a standard for specifying any kind of information on the internet.

- [a] ULR [b] RLU
[c] LUR [d] URL

SECTION – B [5 X 7 = 35]

Answer ALL the Questions.

11. a) Describe in detail about TCP/IP Architecture.

[OR]

12. a) What is error? Describe about error detection with example.

[OR]

b) Give a brief account on HDLC with example.

13. a) Write a brief note on ethernet token bus with example.

[OR]

b) Explain in detail about FDDI.

14. a) Describe about internetwork protocol.

[OR]

b) Write a brief note on transmission control protocol.

15. a) Describe in detail about electronic mail.

[OR]

b) Write a brief note on SNMP.

SECTION – C

[3 X 10 = 30]

Answer Any THREE Questions.

16. Discuss in detail about transmission media with example.

17. Write an elaborate note on LAN transmission equipment with example.

18. Describe in detail about WAN transmission methods.

19. Explain about routing principles with example.

20. Discuss in detail about World Wide Web.

SECTION – C

[3 X 10 = 30]

Answer Any THREE Questions.

16. Discuss briefly about programming team structure.
17. Explain about algorithmic cost model.
18. Elucidate structured analysis and design techniques.
19. Illustrate about Jackson structured programming.
20. Describe briefly about the system testing.

Reg. No:

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END SEMESTER EXAMINATION – NOVEMBER 2021

Programme: B.Sc. IT

Date : 07.02.2022

Course Code: 17UITC52

Time :10 am. to 1 pm.

Course Title : Software Engineering

Max. Marks :75

SECTION – A

[10 X 1 = 10]

Answer ALL the Questions.

Choose the Correct Answer.

1. A _____ project requires 5 to 20 programmers for a period of 2 to 3 years.
[a] small [b] large
[c] medium [d] trivial
2. The _____ model segments the software life cycle into a series of successive activities.
[a] phased [b] cost
[c] prototype [d] milestones
3. _____ estimation focuses on system level costs.
[a] Top-down [b] Bottom-up
[c] Product complexity [d] Product size

4. _____ cost estimators compute the estimated cost of software system as the sum of the costs of the module and subsystems.
- [a] Delphi [b] Expert judgement
[c] Rayleigh [d] Algorithmic
5. _____ state the properties of a solution without stating a solution method.
- [a] Recurrence relation [b] Algebraic Axiom
[c] Implicit equation [d] Regular Expression
6. _____ is an automated analyser for processing requirement stated in PSL.
- [a] RSL [b] REVS
[c] PSA [d] PAS
7. _____ coupling involves the use of parameter lists to pass data item between routines.
- [a] Content [b] Common
[c] Control [d] Data
8. _____ notation can be used in both architectural and detailed design phases.
- [a] Pseudo code [b] Decision table
[c] Data flow diagram [d] Procedure template
9. _____ is planned and systematic pattern of all action necessary to provide adequate confidence that the item or product conforms to established technical requirements.
- [a] Static Analysis [b] System Execution
[c] Inspection [d] Quality Assurance

10. _____ is the process of isolating and correcting the causes of known errors.

- [a] Debugging [b] Acceptance Testing
[c] System Testing [d] Integration Testing

SECTION – B

[5 X 7 = 35]

Answer ALL the Questions.

11. a) Explain about the project size categories.

[OR]

b) Illustrate the cost model of the software life cycle.

12. a) Write a note on product complexity.

[OR]

b) Explain about work breakdown structure.

13. a) Illustrate about regular expression with example.

[OR]

b) Explain PSL/PSA with neat diagram.

14. a) Discuss various types of cohesion.

[OR]

b) Explain the structure charts and HIPO diagram.

15. a) Elucidate about the static analysis.

[OR]

b) What is meant by debugging? Explain.

12. a) Define inheritance. Write all types of inheritance in Java with neat diagram.

[OR]

b) How to define access and import a package? Explain with examples.

13. a) Write a Java program for checking the given number is Armstrong number or not using AWT components.

[OR]

b) Write a Java program to implement the mouse event.

14. a) Write a Java applet program to find the sum of two numbers.

[OR]

b) How to set priorities for threads? Discuss with examples.

15. a) List the characteristics of Javawindow.

[OR]

b) Write the steps to connect a database into Java application via JDBC?

SECTION – C [3 X 10 = 30]

Answer Any THREE Questions.

16. Describe all fundamental concepts of OOPs in Java in detail.

17. Discuss the methods available under String and StringBuffer class with a suitable example.

18. Discuss any two different layout managers in AWT with example program.

19. Differentiate the multithreading and multitasking.

20. Write a Javawindow programming to exchange the text between the client and server.

Reg. No:



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END SEMESTER EXAMINATION – NOVEMBER 2021

Programme : B.Sc. (IT)

Course Code: 17UITC53

Course Title : Java Programming

Date: 08.02.2022

Time: 10 am. to 1 pm.

Max. Marks :75

SECTION – A

[10 X 1 = 10]

Answer ALL the Questions.

Choose the Correct Answer.

1. Which two features of object-oriented programming are the same?

[a] Abstraction and Polymorphism features are the same

[b] Inheritance and Encapsulation features are the same

[c] Encapsulation and Polymorphism features are the same

[d] Encapsulation and Abstraction

2. All the wrapper classes (Integer, Boolean, Float, Short, Long,

Double and Character) in Java are _____.

[a] private

[b] final

[c] immutable

[d] serializable

3. What is the result of the following piece of code?

```
public class Person
```

```
{
```

```
public void talk()
```

```
{
```

```
System.out.print("I am a Person");
```

--1--

```

public class Student extends Person
{
    public void talk()
    {
        System.out.print("I am a Student");
    }
}

public class Test
{
    public static void main(String args[])
    {
        Person p = new Student();
        p.talk();
    }
}

```

- [a] I am a Person [b] I am a Person I am a Student
 [c] I am a Student I am a Person [d] I am a Student

4. Which of the following packages is used to include utility classes like Calendar, Collection and Date?

- [a] java.util [b] java.awt
 [c] java.net [d] java.lang

5. Package of drawString() method is _____.

- [a] java.awt [b] java.swing
 [c] javax.io [d] java.applet

6. In graphics class, which method is used to draw a rectangle with the specified width and height?

- [a] public abstract void drawLine(int x1, int y1, int x2, int y2),
 [b] public abstract void fillRect(int x, int y, int width, int height),
 [c] public abstract void drawOval(int x, int y, int width, int height),
 [d] public void drawRect(int x, int y, int width, int height)

7. In Java, a thread can be created by _____.

- [a] extending the thread class
 [b] implementing runnable interface
 [c] Both (a) and (b)
 [d] extending the runnable class

8. Which of this class is not a member class of java.io package?

- [a] File [b] StringReader
 [c] Writer [d] String

9. Which of the following code retrieves the value of a request parameter?

- [a] header.getParameter(name) [b] response.getParameter(name)
 [c] request.getParameter(name) [d] None of the above

10. The _____ method executes a simple query and returns a single result set object

- [a] executeUpdate() [b] executeQuery()
 [c] execute() [d] noexecute()

SECTION - B

[5 X 7 = 35]

Answer ALL the Questions.

11. a) How do implement the class concept in Java OOPs? Explain it with a suitable program.

[OR]

b) What is an exception? Explain exception handling in Java with relevant examples in program.

b) Write a note on socio-political awareness.

ஆ) சமூக - அரசியல் விழிப்புணர்வு குறித்து ஒரு குறிப்பு எழுதுக.

14. a) Explain the term 'Honesty'.

அ) 'நேர்மை' என்ற வார்த்தையை விளக்குக.

[OR]

b) Why should we respect others? Explain.

ஆ) நாம் ஏன் மற்றவர்களை மதிக்க வேண்டும்? விளக்குக.

15. a) Explain the important values created by family.

அ) குடும்பத்தால் உருவாக்கப்பட்ட முக்கியமான மதிப்புகளை விளக்குக.

[OR]

b) Explain the role of mass media in value formation.

ஆ) மதிப்பு உருவாக்கத்தில் ஊடகங்களின் பங்கை பற்றி விளக்குக.

SECTION - C

[3 X 10 = 30]

Answer Any THREE Questions.

16. Explain the need for value education in detail.

மதிப்புக்கல்வியின் அவசியத்தைப் பற்றி விரிவாக விளக்குக.

17. Discuss about moral values of Hinduism and Karma yoga.

இந்து மதம் மற்றும் கர்ம யோகத்தின் தாரமீக மதிப்புகளை பற்றி விவாதிக்கவும்.

18. Write about Secularism and Socialism.

மதசார்பின்மை மற்றும் பொது உடைமை பற்றி எழுதுக.

19. Discuss the various aspects of team spirit and competence development

கூட்டு முயற்சி மற்றும் திறன் வளர்ச்சியின் பல்வேறு அம்சங்களைப் பற்றி விவாதிக்கவும்.

20. Describe how values can be promoted through educational institutions.

கல்வி நிறுவனங்கள் மூலம் மதிப்புகளை எவ்வாறு மேம்படுத்தலாம் என்பதை விவரிக்கவும்.

Reg. No: _____



G.T.N. ARTS COLLEGE (AUTONOMOUS)

DINDIGUL - 624 005

(Affiliated to Madurai Kamaraj University)

(Accredited by NAAC with 'B' Grade)

END SEMESTER EXAMINATIONS - NOVEMBER 2021

Programme: All Final Year Students

Date: 04.03.2022

Course Code: 17UVEV61

Time: 2 pm - 5 pm

Course Title : Value Education

Max. Marks: 75

SECTION - A

[10 X 1 = 10]

Answer ALL the Questions.

Choose the Correct Answer.

1. Taking care of personal possessions and public property for proper use is called ___ values.

[a] Physical

[b] Mental

[c] Social

[d] Material

முறையான பயன்பாட்டிற்காக தனிப்பட்ட உடைமைகள் மற்றும் பொது சொத்துக்களை கவனித்துக் கொள்வது ----- மதிப்புகள் என்று அழைக்கப்படுகிறது.

[அ] உடல்

[ஆ] மன

[இ] சமூக

[ஈ] பொருள்

2. ___ means feeling of pity for the suffering of others.

[a] Compassion

[b] Forgiveness

[c] Honesty

[d] Courage

----- என்பது மற்றவர்களின் துன்பங்களுக்காக பரிதாபப்படுவதாகும்.

[அ] இரக்கம்

[ஆ] மன்னிப்பு

[இ] நேர்மை

[ஈ] தைரியம்

3. ___ is the householder's stage in the life of a Hindu.

[a] Brahmacharya

[b] Grihastha

[c] Vanaprastha

[d] Sanyasa

நிலையாகும்.

[அ] பிரம்மச்சாரியா

[இ] வணப்பிரஸ்தா

[ஆ] கிறிஸ்து

[ஈ] சன்யாசா

4. Who is the founder of Buddhism?

[a] Muhammad

[c] Gandhiji

[b] Jesus Christ

[d] Siddhartha

புத்த மதத்தை நிறுவியர் யார்?

[அ] முகம்மது

[இ] காந்திஜி

[ஆ] இயேசு கிறிஸ்து

[ஈ] சித்தார்த்தா

5. _____ is a government of the people, by the people and for the people.

[a] Secularism

[c] Democracy

[b] Socialism

[d] Gender Justice

_____ என்பது மக்களால், மக்களுக்காக அமைக்கப்பட்ட அரசாங்கமாகும்.

[அ] மதச்சார்பின்மை

[இ] ஜனநாயகம்

[ஆ] பொது உடைமை

[ஈ] பாலின நீதி

6. There are _____ fundamental rights in our constitutions.

[a] five

[c] seven

[b] six

[d] eight

நம் அரசியலமைப்புகளில் _____ அடிப்படை உரிமைகள் உள்ளன.

[அ] ஐந்து

[இ] ஏழு

[ஆ] ஆறு

[ஈ] எட்டு

7. The term commitment implies _____.

[a] Dependability

[c] Loyalty

[b] Caring

[d] All the above

அர்ப்பணிப்பு என்ற சொல் _____ ஐ குறிக்கிறது.

[அ] சார்புநிலை

[இ] விசுவாசம்

[ஆ] கவனித்தல்

[ஈ] மேலே உள்ள அனைத்தும்

8. _____ is described as an account-giving relationship between individuals.

[a] Accountability

[c] Competence

[b] Team spirit

[d] Transparency

விவரிக்கப்படுகிறது.

[அ] பொறுப்புணர்ச்சி

[இ] திறமை

[ஆ] கூட்டு முயற்சி

[ஈ] வெளிப்படைத்தன்மை

9. Which of the following is the traditional Indian family type?

[a] Nuclear family

[c] Large Joint family

[b] Extended family

[d] All of the above

பின்வருவனவற்றில் பாரம்பரிய இந்திய குடும்ப வகை எது?

[அ] தனிக்குடும்பம்

[இ] பெரிய கூட்டுக்குடும்பம்

[ஆ] நீட்டிக்கப்பட்ட குடும்பம்

[ஈ] அனைத்தும்

10. _____ helps us to know the current affairs.

[a] Peer groups

[c] Family

[b] Media

[d] Society

நடப்பு விவகாரங்களை அறிய _____ நமக்கு உதவுகிறது.

[அ] நட்பு வட்டங்கள்

[இ] குடும்பம்

[ஆ] ஊடகங்கள்

[ஈ] சமூகம்

SECTION – B [5 X 7 = 35]

Answer ALL the Questions.

11. a) What are the classification of values?

அ) மதிப்புகளின் வகைப்பாடுகள் யாவை?

[OR]

b) What is self discipline? Explain.

ஆ) சுய ஒழுக்கம் என்றால் என்ன? விளக்குக.

12. a) Explain the noble eight fold path in Buddhism.

அ) புத்த மதத்தில் உன்னதமான எட்டு மடங்கு பாதையை விளக்குக.

[OR]

b) What are the main values of Sikhism?

ஆ) சீக்கிய மதத்தின் முக்கிய மதிப்புகள் யாவை?

13. a) Explain about democracy.

அ) ஜனநாயகம் பற்றி விளக்குக.

[OR]

--3--

[OR]

b) Comment on structure of M-Commerce.

SECTION – C

[3 X 10 = 30]

Answer Any THREE Questions.

16. Discuss about fixed assignment schemes.
17. Explain the architecture of TCP/IP.
18. Explain GSM protocol architecture and connection establishment.
19. Write about vehicular area network.
20. Compare the features of any three mobile OS in detail.



G.T.N. ARTS COLLEGE (AUTONOMOUS)

DINDIGUL - 624005

(Affiliated to Madurai Kamaraj University)

(Accredited by NAAC with 'B' Grade)

END SEMESTER EXAMINATION – NOVEMBER 2021

Programme: B.Sc. IT

Course Code: 17UITE51

Course Title : Mobile Computing

Date: 09.02.2022

Time: 10 am. to 1 pm.

Max. Marks :75

SECTION – A

[10 X 1 = 10]

Answer ALL the Questions.

Choose the Correct Answer

B

1. Accessing mobile network and devices from anywhere at any time is denoted as _____.
[a] Uniqueness [b] Ubiquity
[c] Accessibility [d] Ad-Hoc
2. MACA stands for _____.
[a] Media Access Control Adaption
[b] Multiple Access Control Address
[c] Multiple Access Collision Avoidance
[d] Media Access Control Avoidance
3. Path taken by encapsulated packets is called as _____.
[a] Forwarding [b] Tunnel
[c] Address [d] None of the above

4. Which one of the following is not related to mobile IP terminology?

- [a] Mobile Node
- [b] Desktop
- [c] Tunnel
- [d] Care of Address

5. _____ technique enables a call to proceed uninterrupted when one user moves from one cell to another.

- [a] Call request
- [b] Call forwarding
- [c] Call move forwarding
- [d] Cell forwarding

6. _____, _____, and _____ are the three parts of GSM network.

- [a] Radio sub system, Base sub system, Network switching sub system
- [b] Base subnet system, Radio sub system, network switching sub system
- [c] Reserve Subnet System, Base subnet system, network switching sub system
- [d] Radio sub system, Base sub system, Network station single system

7. _____ is the application of Ad-Hoc network in crisis management.

- [a] Street representation
- [b] Identification of fighter plane
- [c] Natural disaster
- [d] Getting assistance from a doctor through video conference.

8. Expand VNET _____.

- [a] Value Added Network
- [b] Vital Area Network
- [c] Vehicular Network
- [d] Virus Network

9. Which one of the following is mobile OS?

- [a] Unix
- [b] Linux
- [c] Mac OS
- [d] Blackberry OS

10. WAP stands for _____.

- [a] Window Adapter Protocol
- [b] Window Application Protocol
- [c] Wireless Application Protocol
- [d] Wireless Adaption Protocol

SECTION - B

[5 X 7 = 35]

Answer ALL the Questions

11. a) Compare wired and wireless mobile networks.

[OR]

b) Write the characteristics of mobile computing.

12. a) Narrate the features of mobile IP.

[OR]

b) Differentiate tunneling and encapsulation.

13. a) Describe the organization of cellular network.

[OR]

b) Explain the features and services of GSM.

14. a) Write about the applications of Ad-Hoc network.

[OR]

b) Discuss about proactive routing protocol.

SECTION – C

[3 X 10 = 30]

Answer Any THREE Questions.

16. Explain about the criteria for the S-boxes in DES design criteria.
17. Describe about the overall AES structure in AES cipher.
18. Write about the one way authentication in authentication protocols.
19. Discuss about (i) Elements of MIME,
(ii) MIME content Types.
20. Explain the following malicious program
(i) Backdoor , (ii) Trojan Horses.

Reg. No:

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G.T.N. ARTS COLLEGE (AUTONOMOUS)

DINDIGUL - 624005

(Affiliated to Madurai Kamaraj University)

(Accredited by NAAC with 'B' Grade)

END SEMESTER EXAMINATION NOVEMBER 2021

Programme : B.Sc. IT

Date: 09.02.2022

Course Code: 17UITE52

Time: 10 am. to 1 pm.

Course Title : Cryptography and Network
Security

Max. Marks : 75

SECTION – A

[10 X 1 = 10]

Answer ALL the Questions.

Choose the Correct Answer.

1. _____ is a process to detect, prevent or recover from a security attack.
[a] Security [b] Security mechanism
[c] Security attack [d] Security service
2. _____ is used to produce a ciphertext block of equal length.
[a] Cipher [b] Streamchiphers
[c] Blockcipher [d] Feistel Cipher
3. The simplest mode of operation in block cipher is _____.
[a] CBC [b] EBC
[c] CFB [d] OFB
4. The key size of AES has _____ bits.
[a] 256 [b] 16
[c] 4 [d] 8

5. The mechanism used to verify the integrity of a message is _____.

[a] Hash function

[b] Encryption

[c] Decryption

[d] Message authentication

6. The _____ is an NIST standard that uses SHA.

[a] DSS

[b] Authentication

[c] DDS

[d] Encryption

7. _____ is the specification of key management capabilities.

[a] RFC2401

[b] RFC2402

[c] RFC2406

[d] RFC2408

8. _____ provides security services between TCP and applications that use TCP.

[a] SSL

[b] SSL/TCS

[c] SET

[d] SSLConnection

9. _____ is a piece of software that can infect other programs by modifying them.

[a] Malicious software

[b] Virus

[c] Worm

[d] DOS

10. An application level gateway is called as _____.

[a] Proxy server

[b] Server

[c] Firewall

[d] Circuit level gateway

SECTION - B

15 X 7 = 35

Answer ALL the Questions.

11. a) Discuss about (i) Data confidentiality in security services
(ii) Authentication

[OR]

b) Write about transposition techniques.

12. a) List the advantages of CTR Mode.

[OR]

b) What are the requirements of public key cryptography.

13. a) Describe (i) Form of hash function,

(ii) Requirements of hash function.

[OR]

b) Write short note on (i) Properties of digital signature.

(ii) Requirements of digital signature.

14. a) Narrate the summary of PGP services.

[OR]

b) Write about the parameters in SSL session state.

15. a) Explain the characteristics of firewalls.

[OR]

b) List the steps in digital immune system operation.

15. a) Write short notes on biodiversity at national level.

அ) தேசிய அளவிலான பல்லுயிர்ப்பெருக்கம் குறித்து சிறுகுறிப்பு எழுதுக.

[OR]

b) Comment on in situ conservation of biodiversity.

ஆ) உள்பராமரிப்பு உத்தி மூலம் பல்லுயிர்ப்பெருக்க பாதுகாப்பு பற்றி விளக்குக.

SECTION – C

[3 X 10 = 30]

Answer Any THREE Questions.

16. Discuss in detail about the components of environment.

சுற்றுச்சூழலின் அங்கங்கள் குறித்து விரிவாக விவாதிக்கவும்.

17. Describe the various types of ecological pyramids.

வெவ்வேறு வகையான சூழலியல் பிரமிடுகளை விவரிக்கவும்.

18. Write an essay on non-conventional energy resources with example.

மரபு சாரா ஆற்றல் வளங்கள் பற்றி எடுத்துக்காட்டுடன் ஒரு கட்டுரை எழுதுக.

19. Explain the causes and consequences of air pollution.

காற்று மாசுபடுதலின் காரணிகளையும் அவற்றின் பின்விளைவுகளையும் விளக்குக.

20. Give an elaborate account of values of biodiversity.

பல்லுயிர்ப்பெருக்கத்தின் மதிப்புகள் பற்றி விரிவான தொகுப்பு தருக.

Reg. No:

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G.T.N. ARTS COLLEGE (AUTONOMOUS)

DINDIGUL – 624 005

(Affiliated to Madurai Kamaraj University)

(Accredited by NAAC with 'B' Grade)

END SEMESTER EXAMINATIONS – NOVEMBER 2021

Programme: All UG Final Years

Date: 03.02.2022

Course Code: 17UESV51/19UESV51

Time: 10 am – 1 pm

Course Title : Environmental Science

Max. Marks :75

SECTION – A

[10 X 1 = 10]

Answer ALL the Questions.

Choose the Correct Answer.

1. Ozone layer is found in _____ layer of atmosphere.

[a] Thermosphere

[b] Troposphere

[c] Stratosphere

[d] Exosphere

வளிமண்டலத்தின் _____ அடுக்கில் ஒசோன் படலம் காணப்படுகிறது.

[அ] அயனமண்டலம்

[ஆ] அடிவளிமண்டலம்

[இ] மீவளிமண்டலம்

[ஈ] புறவளிமண்டலம்

2. Which one of the following is NOT a greenhouse gas?

[a] Methane

[b] Hydrogen

[c] Carbon-di-oxide

[d] Nitrogen dioxide

பின்வருவனவற்றுள் எது பசுமை இல்லவாய் அல்ல?

[அ] மீத்தேன்

[ஆ] ஹைட்ரஜன்

[இ] கார்பன்டை ஆக்சைடு

[ஈ] நைட்ரஜன் டை ஆக்சைடு

3. _____ is an example for primary consumer.

[a] green plants

[b] lion

[c] fungi

[d] elephant

முதல்நிலை நுகர்வோருக்கு _____ எடுத்துக்காட்டாகும்.

[அ] பச்சைத்தாவரங்கள்

[ஆ] சிங்கம்

[இ] பூஞ்சை

[ஈ] யானை

4. The largest ecosystem on the earth is _____.
- [a] marine ecosystem [b] forest ecosystem
[c] desert ecosystem [d] agro ecosystem
- பூமியிலுள்ள மிகப்பெரிய சூழலியல் மண்டலம் _____.
- [அ] கடல் சூழலியல் மண்டலம் [ஆ] காற்றுச் சூழலியல் மண்டலம்
[இ] பாலைவனச் சூழலியல் மண்டலம் [ஈ] வேளாண் சூழலியல் மண்டலம்
5. _____ is an example for renewable energy source.
- [a] solar energy [b] fossil fuels
[c] coal [d] natural gas
- புதுப்பிக்கக்கூடிய ஆற்றல் வளங்களுக்கு _____ எடுத்துக்காட்டாகும்.
- [அ] சூரிய ஆற்றல் [ஆ] படிம எரிபொருட்கள்
[இ] நிலக்கரி [ஈ] இயற்கை எரிவாயு
6. _____ is released from tanneries.
- [a] Mercury [b] Nickel
[c] Chromium [d] Selenium
- தோல் தொழிற்சாலையிலிருந்து வெளியேற்றப்படுவது _____.
- [அ] பாதரசம் [ஆ] நிக்கல்
[இ] குரோமியம் [ஈ] செலேனியம்
7. _____ is NOT the use of forest resources.
- [a] production of oxygen [b] forest fire
[c] soil conservation [d] wildlife habitat
- _____ காட்டுவளங்களின் பயன் அல்ல.
- [அ] ஆக்சிஜன் உற்பத்தி [ஆ] காட்டுத்தீ
[இ] மண் பாதுகாப்பு [ஈ] வன உயிரின வாழிடம்
8. The largest noise a man can hear without much discomfort is about _____.
- [a] 180 dB [b] 120 dB
[c] 60 dB [d] 80 dB
- அசௌகரியமில்லாமல் ஒரு மனிதனால் கேட்கக்கூடிய ஒலியின் அதிக அளவு _____.
- [அ] 180 dB [ஆ] 120 dB
[ஆ] 60 dB [ஈ] 80 dB
9. _____ is an example for biodiversity hotspot in India.
- [a] eastern ghats [b] western ghats
[c] Thar desert [d] Indian ocean

- இந்தியாவிலுள்ள உயிர்ப்பன்மய சிறப்பிடத்திற்கு _____ எடுத்துக்காட்டாகும்.
- [அ] கிழக்குதொடர்ச்சி மலை [ஆ] மேற்குதொடர்ச்சி மலை
[இ] தார் பாலைவனம் [ஈ] இந்தியப்பெருங்கடல்
10. Nilgiris is a _____.
- [a] national park [b] sanctuary
[c] zoological park [d] biosphere reserve
- நீலகிரி ஒரு _____.
- [அ] தேசியப் பூங்கா [ஆ] சரணாலயம்
[இ] விலங்கியல் பூங்கா [ஈ] உயிர்வளச் செழுமைப் பகுதி

SECTION - B

[5 X 7 = 35]

Answer ALL the Questions.

11. a) Give an account of lithosphere.
அ) நிலமண்டலம் பற்றி ஒரு தொகுப்பு தருக.
[OR]
- b) Comment on acid rain.
ஆ) அமிலமழை பற்றி விளக்குக.
12. a) Enlist the functions of an ecosystem.
அ) சூழலியல் மண்டலத்தின் வேலைகளைப் பட்டியலிடுக.
[OR]
- b) Write briefly about food web.
ஆ) உணவுவலை பற்றி சுருக்கமாக எழுதுக.
13. a) Demonstrate the conventional energy resources.
அ) மரபுசார்ந்த ஆற்றல் வளங்களை விளக்குக.
[OR]
- b) Write an account of liquid wastes.
ஆ) திரவக்கழிவுகள் பற்றி தொகுத்து எழுதுக.
14. a) Highlight the importance of mineral resources.
அ) கனிமவளங்களின் முக்கியத்துவத்தை எடுத்துரைக்க.
[OR]
- b) Write an account of sustainable development.
ஆ) நீடித்த வளர்ச்சி குறித்து தொகுத்து எழுதுக.

4. The square root of 0.0009 is _____.

- [a] 0.003 [b] 0.03
[c] 0.3 [d] 0.0003

5. The decimal value of 28 % is _____.

- [a] 28 [b] 0.28
[c] 0.028 [d] 2.5

6. If 10% of x is equal to 20% of y then x:y is _____.

- [a] 2 : 1 [b] 3 : 2
[c] 3 : 1 [d] 5 : 1

7. A train travels 82.6 km/Hr. How many kilometres will it travel in 15 minutes ?

- [a] 20.55 [b] 20.65
[c] 20.75 [d] 20.45

8. If A & B together do a work in 4 days. If A alone can do it in 12 days the B can do the work in _____ days.

- [a] 8 [b] 10
[c] 12 [d] 6

9. The Compound interest of Rs. 7,500 at 4% per annum for 2 years compounded annually is _____.

- [a] 8,500 [b] 8,000
[c] 7,500 [d] 8,200

10. The volume of a cuboid with 16m long, 14m breadth and 7m height is _____.

- [a] 1568 m³ [b] 1586m³
[c] 1865m³ [d] 6851m³

SECTION - B

(5 X 7 = 35)

Answer ALL the Questions.

11.a) Find the LCM of 16, 24, 35 & 54.

[OR]

b) Evaluate i) $35 \div 0.07$ ii) $2.5 \div 0.0005$ iii) $136.09 \div 43.9$

12. a) If $\sqrt{841} = 29$ then find the value of $\sqrt{841} + \sqrt{8.41} + \sqrt{0.0841} + \sqrt{0.000841}$

[OR]

b) The average of five consecutive number A, B, C, D, & E is 48.

What is the product of A & E.

13. a) The difference of two numbers is 1660. If 7.5% of the number is 12.5% of the other number. Find the two numbers.

[OR]

b) A television manufacturer earns 20% profit by selling each TV for Rs. 14,400. If the production cost is increased by 15% what should be the new selling price of a set so as to gain 15%.

14. a) A can do a piece of work in 7 days of 9 hours each and B can do it in 6 days of 7 hours each. How long will they take to do it working together 8 hours a day .

[OR]

b) i) A man travelled from the village to the post office at the rate of 25 kmph and walked back at the rate of 4 kmph. If the whole journey took 5 hrs 48 minutes, find the distance of the post - office from the village.

Reg. No:

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G.T.N. ARTS COLLEGE (AUTONOMOUS)

DINDIGUL – 624 005

(Affiliated to Madurai Kamaraj University) || (Accredited by NAAC with 'B' Grade)

END SEMESTER EXAMINATION – NOVEMBER 2021

Programme : B.Com.(CA)

Course Code: 17CINF51

Course Title : Open Source Programming With
Linux, Apache, MySQL and PHP
(LAMP)

Date : 04.02.2022

Time: 10 am. to 1 pm.

Max Marks :75

SECTION – A

[5 X 2 = 10]

Answer ALL the Questions.

1. Write the syntax of PHP.
2. Name any two server side scripting languages.
3. WAMP stands for _____.
4. Write two control loops in PHP?
5. What is phpmyadmin?

SECTION – B

[5 X 7 = 35]

Answer ALL the Questions.

6. a) Describe Web server and Webhosting

[OR]

- b) Differentiate between GET and POST Methods.

7. a) Explain CSS list with examples.

[OR]

- b) Describe frameset and frames in HTML.

8. a) Explain operators in JavaScript.

[OR]

- b) How do you declare a variable in Java Script?

9. a) Differentiate FOR AND FOREACH in PHP.

[OR]

- b) Describe various operators used in PHP.

10. a) Explain DDL Queries in MySQL.

[OR]

- b) Explain DCL Queries in MySQL

SECTION – C

[3 X 10 = 30]

Answer Any THREE Questions.

11. Explain about the role of a Web Server
12. Design a job application form website using HTML.
13. Explain loops, break and continue statements in javascript.
14. Explain about different types of arrays used in PHP with examples.
15. List different PHP functions used for MySQL operations.

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Dindigul

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(Accredited with 'B' Grade by NAAC)



**DEPARTMENT OF INFORMATION
TECHNOLOGY**

EXTERNAL QUESTION PAPER

EVEN-2021-2022

Reg. No.:

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G.T.N. ARTS COLLEGE (AUTONOMOUS)*(Affiliated to Madurai Kamaraj University || Accredited with 'B' Grade by NAAC)***END SEMESTER EXAMINATION - APRIL - 2022****(CHOICE BASED CREDIT SYSTEM - OUTCOME BASED EDUCATION)**

Programme : B.Sc. Information Technology

Date : 08.07.2022

Course Code : 20UITC11

Time : 2:00 PM - 5:00 PM

Course Title : Introduction to Programming

Max. Marks : 60

Q. No.	SECTION - A Answer ALL Questions	(10 * 1 = 10 Marks)	CO(s)	K - Level
1.	_____ is the default file system in Linux. 1.etx 3.etx3 2.ext2 4.mimix		CO1	K1
2.	A Process is an instance of _____ program. 1.waiting 3.terminated 2.executing 4.halted		CO1	K2
3.	The scanf function is used to _____. 1.Input a set of values 3.Do Mathematical operations 2.Print a set of values 4.Take logical decisions		CO2	K1
4.	Select the invalid data type from the following. 1.integer 3.float 2.int 4.string		CO2	K2
5.	The process of allocating memory at compile time is known as _____. 1.Static Memory allocation 3.Memory Management 2.Dynamic Memory allocation 4.Pointers		CO3	K1
6.	Recursion is similar to _____. 1.Switch Case 3.Loop 2.If-else 4.If		CO3	K2
7.	_____ Keyword is used to define the structure. 1.int 3.float 2.union 4.struct		CO4	K1
8.	_____ data types are accepted while declaring bit-fields. 1.char 3.double 2.float 4.int		CO4	K2



Reg. No.:

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END SEMESTER EXAMINATION - APRIL - 2022

(CHOICE BASED CREDIT SYSTEM - OUTCOME BASED EDUCATION)

Programme : B.Sc. Information Technology

Date : 08.07.2022

Course Code : 20UITC21

Time : 10:00 AM - 1:00 PM

Course Title : Programming in C#.NET

Max. Marks : 60

Q. No.	SECTION - A Answer ALL Questions	(10 * 1 = 10 Marks)	CO(s)	K - Level
1.	Boxing converts a value type on the stack to an _____ on the heap. 1.Bool type 2.Instance type 3.Class type 4.Object		CO1	K2
2.	The default access specifier of a class member function is _____. 1.Private 2.Public 3.Protected 4.Internal		CO1	K1
3.	The C# provides special methods known as _____ methods to provide access to data members. 1.Loop 2.Functions 3.Methods 4.Accessor		CO2	K2
4.	_____ parameters are used to pass results back to the calling method 1.Input 2.Reference 3.Value 4.Output		CO2	K1
5.	Duck typing is implemented by using _____ keyword. 1.dynamic 2.object 3.ref 4.base		CO3	K2
6.	C# treats the multiple catch statements like cases in a _____ statement. 1.If 2.Switch 3.For 4.While		CO3	K1
7.	Managed methods will be marked as ----- in MSIL code 1.mscorjit 2.cil 3.dgclr 4.lib		CO4	K2
8.	A variable which is declared inside a method is called a _____ variable 1.Local 2.Private 3.Static 4.Serial		CO4	K1
9.	Find any errors in the following BankAccount constructor: Public int BankAccount() {		CO5	K1

balance = 0; }
1.Name

2. Formal parameters

4. No errors

CO5 K2

3. Return type

10. Polymorphism occurs when the methods of the child class

1. Override the parent class methods but maintain the implementation

2. Maintain the same return type and arguments as the parent class, but implement it differently

3. Have different return types and arguments than the parent class

4. Are Virtual

Q. No.

SECTION - B
Answer ALL Questions

(5 * 4 = 20 Marks) CO(s) K -
Level

11. (a) Define Color Dialog Boxes in C#.

[OR]

CO1 K1

(b) List the functions and its types of CTS.

CO1 K1

12. (a) Explain in detail about arrays in c#.

[OR]

CO2 K2

(b) Describe how Encapsulation is implemented by using access specifiers.

CO2 K2

13. (a) Illustrate a simple program using Interface.

[OR]

CO3 K2

(b) Report access modifiers in c#.

CO3 K2

14. (a) Interpret a login form using textbox, label and button in c# Windows application.

[OR]

CO4 K3

(b) Infer event handler to display message box

CO4 K3

15. (a) Prepare how to create a blank file in the disk if the same file already exists.

CO5 K3

[OR]

(b) Write a program in C# Sharp to create and write some line of text into a file which does not contain a given string in a line

CO5 K3

Q. No.

SECTION - C
Answer ANY THREE Questions

(3 * 10 = 30 Marks) CO(s) K -
Level

16. identify how CLR hosts an application on .NET platform. Draw the block diagram.

CO1 K1

17. Discuss how to accept two strings and perform the following operations :
Copy string 2 to string 3.

CO2 K2

18. Explain interface class with example.

CO3 K2

19. Test Winforms TableLayoutPanel to align winform controls in rows and columns.

CO4 K3

20. Write a program in C# Sharp to read a specific line from a file.

CO5 K3

Reg. No:

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END SEMESTER EXAMINATION – APRIL 2022

(CHOICE BASED CREDIT SYSTEM - UNDER OUTCOME BASED EDUCATION)

Programme: B.Sc., Computer Science, IT & B.C.A
 Course Code: 20UMAA22
 Course Title: Operation Research

Date: 12.07.2022
 Time: 10am-1pm
 Max. Marks: 60

Qn. No.	Section – A Answer ALL the Questions	[10 x 1 = 10 Marks]	CO(s)	K – Level
1.	The operation research generally used for _____. [a] scientific approach [c] solution [b] decision making [d] variables		CO1	K1
2.	Decision variables in an OR model are _____. [a] parameters [b] controllable [c] uncontrollable [d] constants		CO1	K1
3.	Feasible solution satisfies _____. [a] only constraints [b] only non-negative restriction [c] both [a] and [b] [d] [a],[b] and optimum solution		CO2	K1
4.	Which one of the following is true for any constraints of the LPP ? [a] an equation with = sign [b] inequality with \geq sign [c] inequality with \leq sign [d] all the above		CO2	K2
5.	The role of artificial variables in the simplex method is _____. [a] to aid in finding an initial solution [b] to find optimal dual prices in the final simplex table [c] to start phases of simplex method [d] all of the above		CO3	K1
6.	If there exist a non-basic variable whose relative profit is zero in the optimal table, then the nature of the solution is _____. [a] Unbounded [b] Infeasible [c] Unique optimal [d] Alternate solution		CO3	K2
7.	If we were to use opportunity cost value for an unused cell to test optimality, it should be _____.		CO4	K1

- [a] equal to zero
 [b] most negative number
 [c] most positive number
 [d] all the above
8. The method of finding an initial solution based upon opportunity costs is called _____.
- [a] Vogel's approximation CO4 K2
 [b] the northwest corner rule
 [c] Hungarian method
 [d] least cost method
9. The number of person is not equal to the number of jobs then the assignment problem is known as _____.
- [a] unbalanced AP CO5 K1
 [b] balanced AP
 [c] impossible AP
 [d] degenerate AP
10. The method used for solving an assignment problem is known as _____.
- [a] MODI method CO5 K2
 [b] Hungarian method
 [c] Queuing method
 [d] Reduced matrix method

- Qn. Section – B [5 x 4 = 20 Marks] CO(s) K-**
No. Answer ALL the Questions Level
- 11.a) Write any three definition of Operations Research. CO1 K2
 [OR]
- 11.b) Describe the validation of the mathematical model. CO1 K2
- 12.a) A person requires 15, 13, 14 units of chemicals A, B, C respectively for his mango grove. These chemicals are available in liquid product in jars and dry products in bags. The liquid product contains 6 units of A, 2 units of B and 2 units of C per jar and the dry product contains 2 units of A, 3 units of B and 4 units of C per bag. If the liquid product costs Rs. 8 per jar and the dry product costs Rs. 3 per bag, how many of each should he purchase in order to minimize the cost and meet the requirements? Formulate the LPP. CO2 K2
- [OR]
- 12.b) Explain standard form and canonical of LPP.
 13.a) Using simplex method to solve the LPP. CO2 K2
- Maximize $z = 30x_1 + 20x_2$ subject to
 $10x_1 + 8x_2 \leq 800$
 $x_1 \leq 60$
 $x_2 \leq 75$
 $x_1, x_2 \geq 0$ CO3 K2

[OR]

13.b) Solve the following problem using simplex method.

$$\text{Max } Z = 5x_1 + 3x_2 \text{ subject to constraints}$$

$$x_1 \leq 6;$$

$$x_2 \leq 4;$$

$$2x_1 + 3x_2 \leq 18;$$

$$x_1, x_2 \geq 0.$$

CO3 K2

14.a) Find the basic feasible solution for the following TP using North west corner rule:

	C	D	E	Availability
A	3	7	3	6
B	2	3	9	8
Requirement	4	7	3	14

CO4 K2

[OR]

14.b) Using row minima method to obtain the initial basic feasible solution of the transportation problem

	A ₁	A ₂	A ₃	Supply
P ₁	50	30	220	1
P ₂	90	45	170	3
P ₃	250	250	50	4
Demand	4	2	2	8

CO4 K2

15.a) A company has three jobs to be done on three machines. Each job must be done on one and only machines. The cost of each job on each machine is given in the following table. Given the job assignment, which will minimize the cost?

	A	B	C
X	4	6	8
Y	2	3	4
Z	4	8	5

CO5 K2

[OR]

15.b) Four different jobs can be done on four different machines. The matrix below gives cost in rupees of processing jobs *i* on machine *j*. How should the jobs be assigned to the various machines so that the total cost is minimized? How should the jobs be assigned to the various machines so that the total cost is minimized?

	M1	M2	M3	M4
J1	5	7	11	6
J2	8	5	9	6
J3	4	7	10	7
J4	10	4	8	3

CO5 K2

Section - C

Answer ANY THREE Questions

16. Discuss the applications of Operation Research.
17. Solve the following LPP using graphical method.

$$\text{Min } Z = 7x_1 + 10x_2 + 20 \text{ subject to}$$

$$x_1 + x_2 \leq 6$$

$$x_1 + x_2 \geq 3$$

$$0 \leq x_1 \leq 4$$

$$0 \leq x_2 \leq 7$$

[3 x 10 = 30 Marks]

CO(s) K-
Level
CO1 K2

CO2 K3

18. Solve the LPP using Two phase method
 Maximize $z = 5x_1 + 8x_2$ subject to

$$3x_1 + 2x_2 \geq 3$$

$$x_1 + 4x_2 \geq 4$$

$$x_1 + x_2 \leq 5$$

$$x_1, x_2 \geq 0$$

CO3

K3

19. Using Vogel's approximation method to solve the following transportation problem:

	A ₁	A ₂	A ₃	Supply
P ₁	2	7	4	5
P ₂	3	3	1	8
P ₃	5	4	7	7
P ₄	1	6	2	14
Demand	4	2	2	34

CO4

K3

20. Given the cost matrix for travelling the cities A, B, C, D by a travelling salesman

	A	B	C	D
A	∞	46	16	40
B	41	∞	50	40
C	82	32	∞	60
D	40	40	36	∞

CO5

K3

Find the assignment schedule of the travelling sales man so as to minimize the travelling cost.

8. The method of access which uses key transformation is known as _____.
- 1.direct 2.hash
3.random 4.sequential
9. All lock information is managed by a _____ which is responsible for assigning and policing the locks used by the transactions.
- 1.Scheduler 2.DBMS
3.Lock manager 4.Locking agent
10. If a transaction has obtained a _____ lock, it can read but cannot write on the item.
- 1.Shared mode 2.Exclusive mode
3.Read only mode 4.Write only mode

- Q. No.** **SECTION - B** **(5 * 4 = 20 Marks)** **CO(s)** **K - Level**
- Answer ALL Questions**
11. (a) Define and give an example for instances and schema. CO1 K1
- [OR]
- (b) Locate the super key, candidate key and primary key in an E-R diagram for the banking enterprise. CO1 K1
12. (a) Prepare a query for the word 'Perryridge' using any 3 string operations in SQL. CO2 K3
- [OR]
- (b) Write a PLSQL program using Trigger for Insertion and Deletion in a Database. CO2 K3
13. (a) Classify different types of Anomalies in relational databases. CO3 K2
- [OR]
- (b) Identify the problems caused by redundancy. CO3 K2
14. (a) State the Buffer management in detail. CO4 K1
- [OR]
- (b) (i) Differentiate between Static and Dynamic Hashing
(ii) List out the mechanisms to avoid collision during hashing. CO4 K1
15. (a) Explain conflict serializability and view serializability. CO5 K2
- [OR]
- (b) Identify why Recovery is needed? Explain in detail. CO5 K2

- Q. No.** **SECTION - C** **(3 * 10 = 30 Marks)** **CO(s)** **K - Level**
- Answer ANY THREE Questions**
16. State the additional operations in relational algebra. CO1 K1
17. Construct an E-R diagram with all major components for a banking enterprises with entity set customer, branch, loan, payment, account, employee with other own assumption. CO2 K3
18. Draw the E-R diagram for bank systems and Illustrate specialization and generalization with your own example. CO3 K2
19. (i) Illustrate indexing techniques with suitable examples. CO4 K2
(ii) Rewrite notes on Hashing.

20.

Relate the deadlock handling mechanisms with your own example.

CO5 K3



Reg. No.:

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Programme : B.Sc. Information Technology

Course Code : 20UITC32

Course Title : Data Structure and Computer Algorithms

Date : 11.07.2022

Time : 2:00 PM - 5:00 PM

Max. Marks : 60

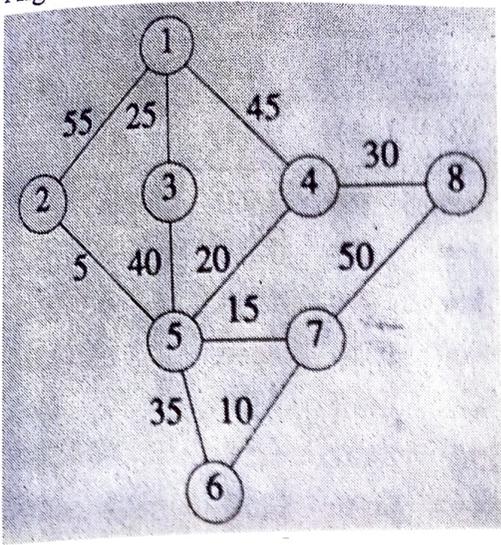
No.	SECTION - A Answer ALL Questions	(10 * 1 = 10 Marks)	CO(s)	K - Level
1.	In general, the index of the first element in an array is _____.		CO1	K1
	1.0	2.-1		
	3.2	4.1		
2.	_____ is not a primitive data structure.		CO1	K1
	1.Boolean	2.Integer		
	3.Arrays	4.Characters		
3.	Tell the following infix expression into is equivalent Postfix expression. (A+B^D)/(E-F)+G		CO2	K1
	1.(ABD^+EF-/G+)	2.(ABD+^EF-/G+)		
	3.(ABD^+EF/-G+)	4.(ABDEF+^/-G+)		
4.	On which element we perform insertion and deletion operation in stack?		CO2	K1
	1.Front	2.Top		
	3.Rear	4.Middle		
5.	_____ are the disadvantages of normal binary tree traversal.		CO3	K2
	1.There are many pointers which are null and thus useless	2.There is no traversal which is efficient		
	3.Complexity in implementing	4.Improper traversal		
6.	In binary search tree, _____ traversal would print the numbers in the ascending order.		CO3	K1
	1.Level-order traversal	2.pre-order traversal		
	3.post-order traversal	4.in-order traversal		
7.	_____ is an advantage of recursive approach that an interactive approach.		CO4	K2
	1.Consumes less memory	2.Less code and easy to implement		
	3.Consumes more memory	4.More code has to be written.		

8. _____ is a characteristic often draws the line between what is feasible and what is impossible. CO4 K1
- 1.performance 2.System evaluation
 3.modularity 4.reliability
9. Consider a complete graph G with 4 vertices. The graph G has _____ spanning trees. CO5 K2
- 1.15 2.3
 3.16 4.13
10. The methods can be used to solve the knapsack problem is _____. CO5 K1
- 1.Brute force algorithm 2.Recursion
 3.Dynamic programming 4.Brute force ,Recursion , dynamic programming

- Q. No.** **SECTION - B** **(5 * 4 = 20 Marks)** **CO(s) K-**
- Answer ALL Questions**
11. (a) Define data structures and its need. CO1 K1
- [OR]
- (b) Recall how data structures are classified. CO1 K1
12. (a) Write a report on how stack can be implemented using Array and Linked list. CO2 K2
- [OR]
- (b) Interpret the various operations of ADT. CO2 K2
13. (a) Summarize the construction of Binary tree. CO3 K2
- [OR]
- (b) Represent the recursive procedure of traversal method. CO3 K2
14. (a) Examine the working principles of Searching Algorithm. CO4 K3
- [OR]
- (b) Examine the main idea behind the Selection Sort. CO4 K3
15. (a) Consider the following instance of the Knapsack problem $n=3, m=20, (p_1, p_2, p_3) = (25, 24, 15)$, and $(w_1, w_2, w_3) = (18, 15, 10)$. Compute the feasible solution. CO5 K3
- [OR]
- (b) Let $n=3$ and $(l_1, l_2, l_3) = (5, 10, 3)$. There are $n! = 6$ possible ordering. Discover the orderings and their respective d values. CO5 K3

- Q. No.** **SECTION - C** **(3 * 10 = 30 Marks)** **CO(s) K-**
- Answer ANY THREE Questions**
16. Record the operations of Array in detail with suitable example. CO1 K1
17. Distinguish between Stack and Queue. CO2 K2
18. Show the output when you apply Preorder, Inorder and Postorder traversal in the following expressions $(A+B*C) + ((D*E+L)*G)$. CO3 K2
19. Examine how performance analysis taken place. CO4 K3
20. Compute the minimum cost spanning tree for the given graph using Kruskal's CO5 K3

Algorithm.



Reg. No:

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G.T.N. ARTS COLLEGE (AUTONOMOUS)

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END SEMESTER EXAMINATION – APRIL 2022

(CHOICE BASED CREDIT SYSTEM - UNDER OUTCOME BASED EDUCATION)

Programme: B.Sc., CS & IT

Course Code: 20UMAA33

Course Title: Numerical Methods

Date: 14.07.2022

Time: 2 pm – 5 pm

Max. Marks: 60

- | Qn. No. | SECTION – A
Answer ALL the Questions | [10 x 1 = 10] | CO(s) | K – Level | | | | | | | | | | | | | | | | |
|---|---|---------------|-------|-----------|--------------|-------|-------|-----|-----|-----|-----|-----|----------------|-------|-------|-------|-------|-------|-------|-------|
| 1. | Bolzano method is also called _____.
[a] Iteration method [b] RegulaFalsi method
[c] Bisection method [d] Newton – Raphson method | | CO1 | K1 | | | | | | | | | | | | | | | | |
| 2. | A better and closer approximation to the root can be found by using an iterative process is called _____.
[a] Newton-Raphson method [b] Bisection method
[c] RegulaFalsi method [d] Iteration method | | CO1 | K2 | | | | | | | | | | | | | | | | |
| 3. | A non-singular matrix A in $n \times n$ matrix, then AA^{-1} is _____.
[a] I [b] A [c] A^2 [d] A^3 | | CO2 | K1 | | | | | | | | | | | | | | | | |
| 4. | If the system of linear equation is inconsistent, then the system has _____.
[a] trivial solution [b] unique Solution
[c] infinitely many solution [d] no solution | | CO2 | K2 | | | | | | | | | | | | | | | | |
| 5. | Which one of the following is a process of finding the most appropriate estimate for missing data?
[a] interpolation [b] extrapolation
[c] interpolating function [d] interpolating polynomial | | CO3 | K1 | | | | | | | | | | | | | | | | |
| 6. | The table gives the distance in nautical miles of the visible horizon for the given heights in feet above the earth's surface: | | CO3 | K2 | | | | | | | | | | | | | | | | |
| <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="padding: 5px;">x(height)</td> <td style="padding: 5px;">100</td> <td style="padding: 5px;">150</td> <td style="padding: 5px;">200</td> <td style="padding: 5px;">250</td> <td style="padding: 5px;">300</td> <td style="padding: 5px;">350</td> <td style="padding: 5px;">400</td> </tr> <tr> <td style="padding: 5px;">y (distance)</td> <td style="padding: 5px;">10.63</td> <td style="padding: 5px;">13.03</td> <td style="padding: 5px;">15.04</td> <td style="padding: 5px;">16.81</td> <td style="padding: 5px;">18.42</td> <td style="padding: 5px;">19.90</td> <td style="padding: 5px;">21.27</td> </tr> </table> | | | | | x (height) | 100 | 150 | 200 | 250 | 300 | 350 | 400 | y (distance) | 10.63 | 13.03 | 15.04 | 16.81 | 18.42 | 19.90 | 21.27 |
| x (height) | 100 | 150 | 200 | 250 | 300 | 350 | 400 | | | | | | | | | | | | | |
| y (distance) | 10.63 | 13.03 | 15.04 | 16.81 | 18.42 | 19.90 | 21.27 | | | | | | | | | | | | | |
| What is the values of y when $x = 160$ ft.? | | | | | | | | | | | | | | | | | | | | |
| 7. | [a] 13.46 [b] 16.82 [c] 20.00 [d] 11.72
The order of an error in Trapezoidal rule is _____
[a] h^2 [b] h^4 [c] h^3 [d] h | | CO4 | K1 | | | | | | | | | | | | | | | | |
| 8. | While evaluating the definite integral by Trapezoidal rule, when the accuracy can be increased?
[a] by taking large number of sub-intervals
[b] by taking small number of sub-intervals
[c] by taking infinite number of sub intervals
[d] both a & c | | CO4 | K2 | | | | | | | | | | | | | | | | |

9. Calculate the maximum and minimum values of y from the following table.

x	0	1	2	3	4	5
y	0	$\frac{1}{4}$	0	$\frac{9}{4}$	16	$\frac{225}{4}$

10. In fourth order Runge-Kutta method, the operation is identical then the differential equation is _____.

[a] linear or non-linear [b] linear only
 [c] non-linear only [d] quadratic only

[5 x 4 = 20]

SECTION - B
Answer ALL the Questions

Qn.
 No.

CO(s) K-Level

11.a) Can we find a real root of the equation $x^3 + x^2 - 1 = 0$ in the interval $[0,1]$ by the method of iteration?

CO1 K2

[OR]
 b) Find the smallest positive root of $x^2 - \log_e x - 12 = 0$ by RegulaFalsi method.

CO1 K2

12.a) Find the solution of the following system of equations using Gaussian elimination method.

CO2 K2

$$x + y + z = 9$$

$$2x - 3y + 4z = 13$$

$$3x + 4y + 5z = 40$$

[OR]
 b) Solve the following system of equations
 $2x - y = 1.75$;
 $x - 3y = -1$
 by Gauss-Jacobi method

CO2 K2

13.a) Find the value of y from the following data at $x = 2.65$

x	-1	0	1	2	3
y	-21	6	15	12	3

CO3 K2

[OR]
 b) Using Lagrange's interpolation formula to find a polynomial from the following:

x	0	1	3	4
y	-12	0	6	12

CO3 K2

14.a) Find $\frac{dy}{dx}$ and $\frac{d^2y}{dx^2}$ at $x = 51$ from the following data.

x	50	60	70	80	90
y	19.96	36.65	58.81	77.21	94.61

CO4 K2

[OR]
 b) Find $\int_0^2 \frac{dx}{x^2+x+1}$ to 3 places of decimals dividing the range of integration into 8 equal parts using Simpson's rule.

CO4 K2

15.a) Using Taylor's series method find y at $x = 1.1$ by solving $\frac{dy}{dx} = x^2 + y^2$ given that $y(1) = 2.3$. CO5 K2

[OR]

b) Given $y' = x^2 - y$, $y(0) = 1$. Find $y(0.1)$ using Runge-Kutta fourth order. CO5 K2

SECTION - C [3 x 10 = 30]

Qn. No. **Answer Any THREE the Questions** CO(s) K-Level

16. Use the method of successive approximation to solve the real root of the equation $\cos x = 3x - 1$. CO1 K3

17. Solve the following system of equation using Gauss -Jordan method
 $2x + y + 4z = 12$
 $8x - 3y + 2z = 20$
 $4x + 11y - z = 33$ CO2 K3

18. The following data gives the melting point of an alloy of zinc and lead, θ the temperature and x is the percentage of lead. CO3 K3

x	40	50	60	70	80	90
θ	184	204	226	250	276	304

Using Newton's interpolation formula to calculate
 (i) θ when $x = 48$ (ii) θ when $x = 84$

19. Calculate the maximum and minimum values of y from the following table. CO4 K3

x	0	1	2	3	4	5
y	0	$\frac{1}{4}$	0	$\frac{9}{4}$	16	$\frac{225}{4}$

20. Given $\frac{dy}{dx} = y - x$ with $y(0) = 2$, calculate $y(0.1)$ and $y(0.2)$ correct to four decimal places by fourth order Runge-Kutta method. CO5 K3



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END SEMESTER EXAMINATION - APRIL - 2022

(CHOICE BASED CREDIT SYSTEM - OUTCOME BASED EDUCATION)

Programme : B.Sc. Information Technology

Course Code : 20UITC41

Course Title : Advanced Java Programming

Date : 07.07.2022

Time : 10:00 AM - 1:00 PM

Max. Marks : 60

Q. No.	SECTION - A Answer ALL Questions	(10 * 1 = 10 Marks)	CO(s)	K - Level
1.	The file produced by java compiler ends with _____ extension. 1.java 2.html 3.class 4.byte		CO1	K1
2.	Java _____ converts java source code into byte code. 1.Interpreter 2.Compiler 3.Preprocessor 4.Assembler		CO1	K1
3.	String class belongs to _____ package. 1.java.awt 2.java.applet 3.java.lang 4.java.string		CO2	K1
4.	Vector class is available in _____ package. 1.java.util 2.java.lang 3.java.awt 4.java.applet		CO2	K1
5.	In thread priority, MAX-PRIORITY value is _____. 1.5 2.8 3.10 4.15		CO3	K2
6.	A/An _____ is a condition that is caused by a run-time error in the program. 1.Interrupt 2.Interface 3.Exception 4.Utility		CO3	K1
7.	The Graphics class is reside in _____. 1.java.io 2.java.util 3.java.lang 4.java.awt		CO4	K2
8.	To pass a parameter to the applet, the _____ tag can be used in the HTML. 1.PARAM 2.PASSPAR 3.PASINPUT 4.PARINPUT		CO4	K1

9. For execution of SELECT SQL query in JDBC, _____ method must be used. CO5 K2
1. executeInsert() 2. executeDelete()
3. executeQuery() 4. executeUpdate()
10. Servlet is _____ side scripting language CO5 K1
1. client 2. computer
3. server 4. Gateway

- Q. No.** **SECTION - B** **(5 * 4 = 20 Marks)** **CO(s)** **K-**
- Answer ALL Questions**
11. (a) Define operators in Java? Explain. CO1 K1
- [OR]
- (b) Outline a Java Program to implement single Inheritance. CO1 K1
12. (a) Discuss the various access protection in package, with example. CO2 K2
- [OR]
- (b) How to handle Single Dimensional Array in Java? Discuss with examples. CO2 K2
13. (a) What is an exception? Show the different types of exception. CO3 K3
- [OR]
- (b) Discover how I/O operations are performed in Java. CO3 K3
14. (a) How to pass the parameters into Applets? Explain. CO4 K2
- [OR]
- (b) Explain any three Text entry component in swing. CO4 K2
15. (a) Explain the interfaces in javax.servlet packages and also give use of each. CO5 K3
- [OR]
- (b) Classify the JDBC driver types according to their architecture. CO5 K3

- Q. No.** **SECTION - C** **(3 * 10 = 30 Marks)** **CO(s)** **K-**
- Answer ANY THREE Questions**
16. Recall the concept of overloading constructors with help of java program. CO1 K1
17. Rewrite a program in java to concatenate two strings. CO2 K2
18. Summarize User Defined Exception with examples. CO3 K2
19. Write a program to display the small rounded rectangles in a specified area, using clipping concept. CO4 K3
20. Manipulate different security issues with web servers. CO5 K3
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G.T.N. ARTS COLLEGE (AUTONOMOUS)*(Affiliated to Madurai Kamaraj University || Accredited with 'B' Grade by NAAC)***END SEMESTER EXAMINATION - APRIL - 2022****(CHOICE BASED CREDIT SYSTEM - OUTCOME BASED EDUCATION)****Programme : B.Sc. Information Technology****Date : 11.07.2022****Course Code : 20UITC42****Time : 10:00 AM - 1:00 PM****Course Title : Operating System Concepts****Max. Marks : 60**

Q. No.	SECTION - A Answer ALL Questions	(10 * 1 = 10 Marks)	CO(s)	K - Level
1.	DMA is used for _____. 1.High speed devices 2.Low speed devices 3.Utilizing CPU cycles 4.Using memory unit		CO1	K1
2.	Operating system is a collection of _____. 1.Hardware components 2.Input-output devices 3.Software routines 4.Commands		CO1	K1
3.	The FCFS algorithm is particularly troublesome for _____. 1.time sharing systems 2.multiprogramming systems 3.multiprocessor systems 4.operating systems		CO2	K1
4.	Mutual exclusion can be provided by the _____. 1.mutex locks 2.binary semaphores 3.both mutex locks and binary semaphores 4.multiprocess		CO2	K1
5.	The request and release of resources are _____. 1.command line statements 2.interrupts 3.system calls 4.special programs		CO3	K2
6.	The circular wait condition can be prevented by _____. 1.using pipes 2.Using PCB 3.using thread 4.defining a linear ordering of resource types		CO3	K1
7.	The minimum number of frames to be allocated to a process is decided by the _____. 1.the amount of available physical memory 2.operating System 3.instruction set architecture 4.Program		CO4	K2

8. Run time mapping from virtual to physical address is done by _____ . CO4 K2
 1.Memory management unit 2.CPU
 3.PCI 4.cache
9. In _____ information is recorded magnetically on platters. CO5 K2
 1.magnetic disks 2.electrical disks
 3.assemblies 4.cylinders
10. A section of disk at the beginning of each partition is set aside to contain the table in _____ CO5 K1
 1.linked allocation 2.hashed allocation
 3.indexed allocation 4.fat

Q. No. SECTION - B (5 * 4 = 20 Marks) CO(s) K - Level
Answer ALL Questions

11. (a) Identify the services provided by an Operating System. CO1 K1
 [OR]
 (b) Examine the distinguishing features of i)Real time system ii) Multiprocessor system CO1 K1
12. (a) Give difference between Job-scheduling & CPU-scheduling. CO2 K2
 [OR]
 (b) Explain FCFS scheduling algorithm. Find the average turnaround time and average waiting time for the processes given in the table below. CO2 K2
 Process CPU burst time(in ms)
 P1 24
 P2 3
 P3 3
13. (a) Examine starvation. Differentiate deadlock and starvation. CO3 K3
 [OR]
 (b) Examine the resource allocation graph. CO3 K3
14. (a) Report the difference between Physical and logical address. CO4 K2
 [OR]
 (b) Demonstrate any two page replacement algorithms. CO4 K2
15. (a) Examine how an index file is used to speed up the access in direct-access files? CO5 K3
 [OR]
 (b) Write briefly about file attributes and operations. CO5 K3

Q. No. SECTION - C (3 * 10 = 30 Marks) CO(s) K - Level
Answer ANY THREE Questions

16. Explain different types of Operating systems. K1
17. Describe process states with a diagram. Report the need for a context switch. CO1 K1
18. Given 3 processes A,B and C, three resources x,y and z and apply following events, CO2 K2
 i) A requests x ii) A requests y iii) B requests y iv) B requests z v) C requests z vi) C requests x vii) C requests y CO3 K3
 Assume that requested resources should always be allocated to the request process if it is

available. Draw the resource allocation graph for the sequences. And also mention whether it is a deadlock? If it is, how to recover the deadlock.

CO4 K2

19. Illustrate segmented memory management.

CO5 K3

20. Explain File Structure and Internal File Structure.

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END SEMESTER EXAMINATION – APRIL 2021

(CHOICE BASED CREDIT SYSTEM - UNDER OUTCOME BASED EDUCATION)

Programme: B.Sc., CS & IT

Course Code: 20UMAA43

Course Title: Quantitative Aptitude

Date: 14.07.2022

Time: 10am-1pm

Max. Marks: 60

Qn. No.	Section – A Answer ALL the Questions	[10 x 1 = 10 Marks]	CO(s)	K – Level
1.	Which digit has both place and face value as same? [a] Ten's digit [b] Tenth digit [c] Unit digit [d] All the above		CO1	K1
2.	What is the unit digit in $(4137)^{754}$? [a] 1 [b] 3 [c] 7 [d] 9		CO1	K2
3.	The value of $\sqrt{41 - \sqrt{21 + \sqrt{19 - \sqrt{9}}}}$ is _____. [a] 3 [b] 5 [c] 6 [d] 4		CO2	K1
4.	The average of all odd numbers up to 100 is _____ [a] 49 [b] 49.5 [c] 50 [d] 51		CO2	K2
5.	Successive discounts of 10%, 12% and 15% amount to a single discount is _____. [a] 32.68% [b] 35.28% [c] 36.68% [d] 33.48%		CO3	K1
6.	If A's salary is 20% less than B's salary, by how much percent is B's salary more than A's? [a] 35% [b] 25% [c] 15% [d] 20%		CO3	K2
7.	A works twice as fast as B. If B can complete a work in 12 days independently, the number of days in which A and B can together finish the work is _____. [a] 4 days [b] 6 days [c] 8 days [d] 18 days		CO4	K1
8.	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		CO4	K2

9. Extra money paid for using others money is called _____.
- [a] Principal [b] Sum [c] interest [d] simple interest
10. A sum of money amounts to Rs.6690 after 3 years and to Rs.10,035 after 6 years on compound interest. The principal is _____.
- [a] 4360 [b] 4460 [c] 4560 [d] 4660

[5 x 4 = 20 Marks]

Qn.
No.

Section - B
Answer ALL the Questions

- 11.a) a) What least value must be assigned to * so that the number 197×5462 is divisible by 9?
b) Find the number which is nearest to 3105 and is exactly divisible by 21.
[OR]
- b) Evaluate
a) $6202.5 + 620.25 + 62.025 + 6.2025 + 0.62025$.
b) $5.064 + 3.98 + 0.7036 + 7.6 + 0.3 + 2$.
- 12.a) a) Find the greatest five digit number which is a perfect square.
b) Find the value of $\sqrt{1\frac{9}{16}}$.
[OR]
- b) a) If the sum of two numbers is 42 and their product is 437, then find the absolute difference between the numbers?
b) The ratio between a two-digit number and the sum of the digits of that number is 4 : 1. If the digit in the unit's place is 3 more than the digit in the ten's place, then what is the number?
- 13.a) The value of the machine depreciates at the rate 10% per annum. If it's present value is Rs. 1,62,000, what will be its worth after 2 years? What was the value of the machine 2 years ago?
[OR]
- b) a) Find the fourth proportional to 4, 9, 12.
b) Divide Rs. 672 in the ratio 5: 3.
- 14.a) A dog takes 4 leaps for every 5 leaps of a hare but 3 leaps of the dog are equal to 4 leaps of the hare. Compare. their speeds
[OR]
- b) What was the day of the week on 16th July, 1776?
- 15.a) What annual installment will discharge a debt of Rs. 1092 in due in 3 years at 12% simple interest?
[OR]

b) a) If $\log_{10} 2 = 0.30103$, find the value of $\log_{10} 50$.

CO5 K2

b) If $\log_{\sqrt{8}} x = 3\frac{1}{3}$, find the value of x .

Section - C

[3 x 10 = 30 Marks]

CO(s) K-Level

Answer ALL the Questions

Qn.
No.
16.

a) How many natural numbers between 17 and 80 are divisible by 6?

CO1 K3

b) Find the total number of prime factors in the product

$$4^{11} \times 7^5 \times 11^2.$$

17.

a) Nine persons went to a hotel for taking their meals. Eight of them spend Rs. 12 each on their meals and the ninth spend Rs. 8 More than the average expenditure of all the nine. What was the total money spend by them?

CO2 K3

b) Rohit was four times as old as his son eight years ago. After eight years Rohit will be twice as old as his son. What are their present ages?

18.

a) Mr. Jones gave 40% percent of the money he had, to his wife. He also gave 20% of the remaining amount to each of his three sons. Half of the amount now left was spent on miscellaneous items and the remaining amount of Rs. 12,000 was deposited in the bank. How much money did Mr. Jones have initially?

CO3 K3

b) Due to a reduction of $6\frac{1}{4}\%$ in the price of sugar, a man is able to buy 1 kg more for Rs 120. Find the original and reduced rate of sugar.

19.

45 men can complete a work in 16 days. Six days after they started working 30 more men joined them. How many days will they now take to complete the remaining work?

CO4 K3

20.

a) A sum at simple interest of $13\frac{1}{2}\%$ per annum amounts to Rs. 2502.50 after 4 years. Find the sum.

CO5 K3

b) A sum of Rs. 1550 is lent out into two parts, one at 8% and another one at 6%. If the total annual income is Rs. 106, find the money lent at each rate.

**G.T.N. ARTS COLLEGE (AUTONOMOUS)**

DINDIGUL – 624 005

*(Affiliated to Madurai Kamaraj University) || (Accredited by NAAC with 'B' Grade)***END SEMESTER EXAMINATIONS – APRIL 2022****Programme : B.A., B.COM****Date : 13.07.2022****Course Code: 20CENG31****Time : 10 am – 12 pm****Course Title : Body language: Key to professional Success****Max. Marks : 30****SECTION – A****[5 X 3 = 15]****Answer ALL the Questions.**

1. a) Describe Behavioural Connotations.

[OR]

b) Define Oculistics in body language.

2. a) What does kinesics mean in communication?

[OR]

b) Why are facial expressions important in communication?

3. a) What are the 3 types of smiles?

[OR]

b) How does nodding affect communication?

4. a) How do hand movements help in understanding others?

[OR]

b) What is paralanguage and give an example?

5. a) Why is Olfactics important?

[OR]

b) Why is Chromatics important for a profession in communication?

--1--

Answer Any THREE Questions.

6. Elaborate Proxemics in non verbal communication.

7. How is Haptics used in communication?

8. Why is smiling interpreted differently in different cultures?

9. Describe Chronemics and give some examples.

10. What does Digital Body Language means in today's world-Explain.

Reg. No:

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DINDIGUL - 624 005

(Affiliated to Madurai Kamaraj University) || (Accredited by NAAC with 'B' Grade)

END SEMESTER EXAMINATIONS - APRIL 2022

Programme : All UG Programmes

Course Code : 20CBBA31

Course Title : Total Quality Management

Date : 13.07.2022

Time: 10 am - 12 pm

Max Marks : 30

SECTION - A

[5 X 3 = 15]

Answer ALL the Questions.

1. a) Define the term demining philosophy.

[OR]

b) List out the principles of total quality management.

2. a) Explain the process of PDSA cycle.

[OR]

b) Write a short note on continuous process improvement.

3. a) Explain the types of bench marking.

[OR]

b) List out the objectives of bench marking.

4. a) What is quality function deployment?

[OR]

b) What are the four phases of quality function deployment?

5. a) Discuss the need for ISO.

[OR]

b) List the ISO 9000 series.

--1--

SECTION - B

[3 X 5 = 15]

Answer Any THREE Questions.

6. What are the barriers to total quality management implementation?

7. Discuss about the seven tools for improving quality.

8. Elaborately discuss about six sigma principles.

9. Discuss about the importance of quality function deployment.

10. Explain about documentations needed for ISO Standards.

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Reg. No:



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END SEMESTER EXAMINATIONS – APRIL 2022

Programme : All UG Courses

Course Code: 20CBSW31

Course Title : Communication & Life Skills

Date : 13.07.2022

Time: 10 am – 1pm

Max. Marks : 30

SECTION – A

[5 X 3 = 15]

Answer ALL the Questions.

1. a) Explain the purpose of communication.

[OR]

b) Write any two definition of communication.

2. a) Explain the stages of communication

[OR]

b) Explain the channels of communication.

3. a) Explain the selection of suitable approaches in mass communication.

[OR]

b) Explain the media for different target groups.

4. a) Explain the critical thinking in life skills.

[OR]

b) Coping with emotions in life skills.

5. a) write about the time management.

[OR]

b) Write about the goal setting.

SECTION – B

[3 X 5 = 15]

Answer Any THREE Questions.

6. Explain the need and importance of communication.

7. Explain the types of communication?

8. Explain the types of mass media?

9. What are the five elements of effective communication?

10. What are the ten qualities of an effective team leader?

Reg. No:

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DINDIGUL - 624 005

(Affiliated to Madurai Kamaraj University) || (Accredited by NAAC with 'B' Grade)

END SEMESTER EXAMINATIONS - APRIL 2022

Programme : All UG Programmes

Date : 13.07.2022

Course Code: 20CMAT41

Time: 2 pm - 4 pm

Course Title : Developing Quantitative Aptitude - II

Max Marks: 30

SECTION - A

[5 X 3 = 15]

Answer ALL the Questions.

1. a) If $2^{x-1} + 2^{x+1} = 1280$, then find the value of x .

[OR]

b) Find the value of $\left[5 \left(8^{\frac{1}{3}} + 27^{\frac{1}{3}} \right)^3 \right]^{\frac{1}{4}}$

2. a) Two pipes A and B can fill a tank in 36 hours and 45 hours respectively. If both the pipes are opened simultaneously, how much time will be taken to fill the tank?

[OR]

- b) Two pipes can fill a tank in 10 hours and 12 hours respectively while a third pipe empties the full tank in 20 hours. If all the three pipes operate simultaneously, in how much time will the tank be filled?
3. a) A man takes 3 hours 45 minutes to row a boat 15 km downstream of a river and 2 hours 30 minutes to cover a distance of 5 km upstream. Find the speed of the river current in km/hr.

[OR]

4. a) If the height of a pole is $2\sqrt{3}$ metres and the length of its shadow is 2 metres, then find the angle of elevation of the sun.

[OR]

- b) A ladder leaning against a wall makes an angle of 60° with the ground. If the length of the ladder is 19 m, find the distance of the foot of the ladder from the wall.

5. a) If 15 toys cost Rs. 234, what do 35 toys cost?

[OR]

- b) If 15 men, working 9 hours a day, can reap a field in 16 days, in how many days will 18 men reap the field, working 8 hours a day?

SECTION – B

[3 X 5 = 15]

Answer Any THREE Questions.

6. (i) Which is larger $\sqrt{2}$ or $\sqrt[3]{3}$? (ii) Find the largest from among $\sqrt[4]{6}$, $\sqrt{2}$ and $\sqrt[3]{4}$
7. Two pipes A and B can fill a tank in 36 minutes and 45 minutes respectively. A water pipe C can empty the tank in 30 minutes. First A and B are opened. After 7 minutes, C is also opened. In how much time, the tank is full?
8. A man can row 40 km upstream and 55 km downstream in 13 hours. Also, he can row 30 km up streams and 44 km downstream in 10 hours. Find the speed of the man in still water and the speed of the current.

On walking 24 m towards the tower, the angle of elevation becomes 60° .

Find the height of the tower.

10. If 9 engines consumes 24 metric tonnes of coal, when each is working 8 hours a day, how much coal will be required for 8 engines, each running 13 hours a day, it being given that 3 engines of former type consume as much as 4 engines of latter type?



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END SEMESTER EXAMINATIONS - APRIL 2022

Programme: All UG Programmes

Course Code: 20CPHY41

Course Title: Sources of Energy

Date: 13.07.2022

Time: 2 pm - 4 pm

Max Marks: 30

SECTION - A

[5 X 3 = 15]

Answer ALL the Questions.

1. a) What are conventional sources of energy? Give some examples.

[OR]

- b) Write the advantages and disadvantages of conventional energy sources.

2. a) What are hydro power resources?

[OR]

- b) List the advantages of Micro - hydro schemes.

3. a) Define wind velocity and incident wind velocity.

[OR]

- b) Explain Lift and Drag type machines.

4. a) What are non conventional sources of energy? Give some examples

[OR]

- b) List the types of geothermal resources.

5. a) what are the environmental impacts of OTEC?

[OR]

- b) Write the advantages and disadvantages of OTEC.

SECTION - B

[3 X 5 = 15]

Answer Any THREE Questions.

6. Explain in detail about conventional sources of energy.

7. Explain hydro power technology.

8. Discuss in detail about wind turbines.

9. Explain in detail about non conventional sources of energy.

10. Discuss in detail about OTEC.

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END SEMESTER EXAMINATIONS - APRIL 2022

Programme : All UG Programme

Course Code: 20CCHE41

Course Title: Perfume Chemistry

Date : 13.07.2022

Time : 2 pm - 4 pm

Max Marks: 30

SECTION - A

[5 X 3 = 15]

Answer ALL the Questions.

1. a) Classify essential oils with examples.

[OR]

b) Describe the role of alcohols and ketones in perfume synthesis.

2. a) Write notes on Citronellol.

[OR]

b) Discuss about natural perfumes.

3. a) Discuss the formulation of Jasmine perfume.

[OR]

b) Write the composition of synthetic perfume.

4. a) Discuss the constituents of artificial flavours.

[OR]

b) Name any three perfumes produced from fruit flowers and write their compositions.

5. a) Give an account on chemical ingredients of grape compounds.

[OR]

b) Mention any six commercial fruit flavours.

SECTION - B

[3 X 5 = 15]

Answer Any THREE Questions.

6. Explain the method of isolation of essential oils.

7. What are flower perfumes? Explain the composition of carnation.

8. Describe the role of diphenyl compounds in perfumery.

9. Explain the extraction process of flavour from fruit juice.

10. Give an account on apple compounds in perfume industry.

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*(Affiliated to Madurai Kamaraj University) || (Accredited by NAAC with 'B' Grade)***END SEMESTER EXAMINATIONS - APRIL 2022****Programme : All UG Programmes****Date : 13.07.2022****Course Code : 20CBBA41****Time : 2 pm - 4 pm****Course Title : Digital Marketing****Max Marks: 30****SECTION - A****[5 X 3 = 15]****Answer ALL the Questions.**

1. a) List out the process of digital marketing.

[OR]

- b) Write a short note on inbound marketing.

2. a) What is web hosting?

[OR]

- b) Explain the types of websites.

3. a) What do you mean by E-advertising?

[OR]

- b) Write a note on bidding strategies.

4. a) Write about marketing using facebook.

[OR]

- b) What is the procedure to do marketing through YouTube?

5. a) What is called as influencer marketing?

[OR]

- b) Define content marketing in short.

Answer Any THREE Questions.

6. State the difference between traditional marketing and digital marketing.
7. Discuss about search engine optimization.
8. Explain different types of bidding strategies.
9. List out the significance of email marketing.
10. List out the process of content creating.



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END SEMESTER EXAMINATIONS - APRIL 2022

Programme : All UG Programme

Date: 13.07.2022

Course Code: 20CBCA41

Time: 2 pm - 4 pm

Course Title : PC Hardware and Troubleshooting

Max Marks: 30

SECTION A

[5 x 3 = 15]

[Answer ALL the questions]

1. a) Visualize the booting process.

[OR]

b) Express about how to assemble the PC.

2. a) Tell about software.

[OR]

b) Explain how a computer works?

3. a) Discuss about updating software.

[OR]

b) Write short notes on:

a) Virus b) Malware

4. a) Recall the concept of partitioning hard drive.

[OR]

b) Express your view about installing and uninstalling software.

5. a) Report trouble shooting and repairing printers.

[OR]

b) Discuss about understanding error messages and how to search for information.

SECTION B
[Answer ANY THREE questions]

13 x 5 = 15

6. Explain about components of a computer.

7. Illustrate about hardware.

8. Examine the concept of computer hardware maintenance.

9. Describe about installing operating systems.

10. Explain the following

a) Fixing software problems.

b) Fixing Hardware problems.



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END SEMESTER EXAMINATIONS - APRIL 2022

Programme : All UG Programmes

Course Code: 20CCSC41

Course Title : ASP.NET

Date : 13.07.2022

Time: 2 pm - 4 pm

Max Marks: 30

SECTION - A

[5 X 3 = 15]

Answer ALL the Questions.

1. a) How to customise the IDE and create a new project in visual studio 2005.

[OR]

- b) Explain in detail about the menu bar in visual studio 2005.

2. a) Explain in detail on check box and radio button in ASP.NET.

[OR]

- b) Explain image control of ASP.NET in detail with example.

3. a) Explain ASP.NET grid view control in detail.

[OR]

- b) How to create a database table in grid view?

4. a) How to display static data tree view server control?

[OR]

- b) What are ASP.NET master pages? Explain.

[OR]

- b) What is site map API? Explain in detail.

SECTION - B

[3 X 5 = 15]

Answer Any THREE Questions.

6. Explain in detail on ASP.NET server controls.
7. Explain detail on ASP.NET architecture and it's components.
8. Explain event handler and session management in ASP.NET.
9. Explain ASP.NET database connection string insert, update and delete in detail.
10. How to build ASP.NET site map data provider?

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END SEMESTER EXAMINATIONS - APRIL 2022

Programme : All UG Programmes

Course Code: 20CINF41

Course Title : Desktop Publishing

Date : 13.07.2022

Time: 2 pm - 4 pm

Max. Marks: 30

SECTION - A

[5 X 3 = 15]

Answer ALL the Questions.

1. a) Explain how to start adobe photoshop?

[OR]

b) How will you crop an image in adobe photoshop?

2. a) List out any 5 tools in adobe photoshop. Explain any two.

[OR]

b) Explain the work area in photoshop.

3. a) What is CorelDraw? How do you start CorelDraw?

[OR]

b) Explain five perfect shapes in a brief?

4. a) What is the use of Text tool?

[OR]

b) Write the steps to import an image in Corel Draw.

5. a) What is the default paper type and size when we open CorelDraw and what is the use of graph paper ?

[OR]

b) Write down the steps to export files in CorelDraw.

SECTION - B

[3 X 5 = 15]

Answer Any THREE Questions.

6. Explain briefly about selection tools.

7. List out the ten different types of filters and explain any three.

8. Discuss about property bar.

9. Illustrate in detail about Resizing, Rotating, Skewing and Cropping an image in CorelDraw.

10. Design an invitation on your own and explain the tools you used to design.

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END SEMESTER EXAMINATIONS – APRIL 2022

Programme : All UG Programmes

Course Code: 20CBSW41

Course Title : Environmental Social Work

Date : 13.07.2022

Time: 2 pm – 4 pm

Max Marks: 30

SECTION – A

[5 X 3 = 15]

Answer ALL the Questions.

1. a) What are the causes for air pollution?

[OR]

b) Spell out the consequences of water pollution.

2. a) Name the types of disaster.

[OR]

b) What are the components of ecology?

3. a) Write about save silent valley movement.

[OR]

b) What are the types of resources in environment?

4. a) What do you know about global warming?

[OR]

b) Who are called as marginalised?

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5. a) Show how environment conservation protects human health?

[OR]

b) What do you understand by collective action in environment issues?

SECTION – B

[3 X 5 = 15]

Answer Any THREE Questions.

6. Explain the causes for environmental degradation in India.
7. Explain the causes for disaster and mitigation measures taken to remove the identified impacts.
8. Explain the importance of Narmada Bhachao Andholan movement in India.
9. Explain the impact of global warming in habitats in the world.
10. Interpret the problems of Appiko movement in Uttara kannada (Shimoga District).

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END SEMESTER EXAMINATION – APRIL 2022

Programme : All UG Programmes

Date : 13.07.2022

Course Code: 20CHMC42

Time: 2 pm – 4 pm

Course Title: Entrepreneurship &

Personality Skills for Hospitality

Max Marks: 30

SECTION – A

[5 X 3 = 15]

Answer ALL the Questions.

1. a) Brief the term Entrepreneurship.

[OR]

b) Write the difference between Entrepreneur and Intrapreneur.

2. a) How will you do the misenplace for restaurant service?

[OR]

b) Can you write the procedures involved while cleaning a public area.

3. a) Why is Grooming important in the Hotel Industry?

[OR]

b) How do hoteliers maintain good personal hygiene in hotels?

4. a) What are the types of communication skills? Explain.

[OR]

b) What is the importance of 'Small Talk' before serious business?

5. a) Can you list down the learning that you get from seniors of the hotel where you completed the training?

[OR]

b) What are the characteristic of a good team?

SECTION – B

[3 X 5 = 15]

Answer Any THREE Questions.

6. Explain in detail about entrepreneur and write the various types of entrepreneur

7. Write in detail about the Check In and Checkout procedures of a five star hotel.

8. Define Listening. Explain the art of Intelligent Listening.

9. Explain the techniques of personality analysis through body language.

10. Define group discussion and write the skills required for group discussion.



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END SEMESTER EXAMINATIONS – APRIL 2022

Programme: All Second Year UG

Course Code: 20UOSS31

Course Title: Soft Skills

Date: 26.07.2022

Time: 10 am – 12 pm

Max. Marks: 50

SECTION – A

[5 X 4 = 20]

Answer any FIVE Questions.

1. Define soft skills and its kinds.
2. What are SMART goals?
3. Write a note on time stressors.
4. Mention few methods of effective time management.
5. What is brainstorming? What is it used for?
6. List the behavioral characteristics of assertive communication.
7. What is social awareness? What are the skills associated with social awareness?
8. Explain civic responsibility?

SECTION – B

[3 X 10 = 30]

Answer Any THREE Questions.

9. Self esteem and positive attitude play a vital role in present scenario – Discuss.

11. Evaluate the significance of four D's in Time management.

12. Elaborate the five elements that define Emotional Intelligence.

13. What is Sustainable development and how is conservation of natural resources possible?

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END SEMESTER EXAMINATION – APRIL 2022

Programme: All Second Year UG

Course Code: 20USSS41

Course Title: Soft Skills II

Date: 26.07.2022

Time: 2 pm – 4 pm

Max. Marks: 50

SECTION – A

[5 X 4 = 20]

Answer any FIVE Questions.

1. Define employability skills.
2. Why CV is important in acquiring a job?
3. Why communication and interpersonal relations are important in workplace?
4. Describe paralanguage.
5. List some important rules for email etiquette.
6. Discuss the significance of team spirit.
7. State the importance of grooming in workplace.
8. What do you mean by workplace etiquette?

SECTION – B

[3 X 10 = 30]

Answer Any THREE Questions.

9. Can a student consciously raise his/her employability quotient? If so, how?
10. Explain the types of communication.

11. What are the seven Cs of communication? How are they relevant to business correspondence?
12. How can companies foster team work among their employees?
13. What is communication etiquette? Why it is important in workplace?



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END SEMESTER EXAMINATION - APRIL - 2022

(CHOICE BASED CREDIT SYSTEM - OUTCOME BASED EDUCATION)

Programme : ALL UG PROGRAMMES

Course Code : 20UVEV11

Course Title : Value Education

Reg. No.:

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Date : 25.07.2022

Time : 2:00 PM - 4:00 PM

Max. Marks : 30

Q. No.	SECTION - A Answer ALL Questions	(5 * 3 = 15 Marks)	CO(s)	K - Level
1. (a)	State the Basic Characteristics of Values. மதிப்புகளின் அடிப்படைப் பண்புகளைக் கூறுக. [OR]		CO1	K1
(b)	Describe Forgiveness. மன்னிப்பு - விளக்குக.		CO1	K1
2. (a)	List out the kinds of Karma in Hindu Scriptures. இந்து வேதங்களில் உள்ள கர்ம வகைகளைப் பட்டியலிடுக. [OR]		CO2	K1
(b)	" religion promotes social harmony and gives positive goals in life"-state the reason. "மதங்கள் சமூக நல்லிணக்கத்தையும் நேர்மறை இலக்குகளையும் அளிக்கின்றன"-காரணம் கூறுக.		CO2	K1
3. (a)	Define Nehru's part in religious secularism. மதச்சார்பின்மையில் நேருவின் பங்கு குறித்து விவரிக்க. [OR]		CO3	K2
(b)	Explain the actions to be followed during Secularism. மதச்சார்பின்மையின் போது பின்பற்ற வேண்டிய நடவடிக்கைகளை விளக்குக.		CO3	K2
4. (a)	Define professional values. தொழில்முறை மதிப்புகளை விளக்குக. [OR]		CO4	K2
(b)	Describe how Television stands primordial in supporting Democracy. குடியரசை ஆதரிக்கின்ற ஊடகங்களில் முதன்மையானது தொலைக்காட்சி என்பதை விவரிக்க.		CO4	K2
5. (a)	Briefly write the role of educational institutions in value formation. மதிப்புக்கல்வி உருவாக்கத்தில் கல்வி நிறுவனங்களின் பங்கை விவரிக்க. [OR]		CO5	K2
(b)	Explain the role of family in value formation. மதிப்பு உருவாக்கத்தில் குடும்பத்தின் பங்கினை விளக்குக.		CO5	K2
Q. No.	SECTION - B Answer ANY THREE Questions	(3 * 5 = 15 Marks)	CO(s)	K - Level
6.	What do you mean by Honesty and describe anyone its theories.		CO1	K2

- நேர்மை என்றால் என்ன என்பதைக் கூறி அதன் கோட்பாடுகள் ஏதேனும் ஒன்றினை விவரிக்க.
7. Explain the value of 'Brotherhood' in Islam. CO2 K2
இஸ்லாம் சமயம் வலியுறுத்தும் சகோதரத்துவத்தின் மதிப்பினை விளக்குக.
8. Sketch the Five levels of Political Awareness. CO3 K3
அரசியல் விழிப்புணர்வின் ஐந்து நிலைகளை வரையறுக்க.
9. Interpret the accountability and Team Spirit. CO4 K2
பொறுப்புணர்வு மற்றும் குழுஉணர்வு - வரையறுக்க.
10. Describe the role of the family in social institutions. CO5 K3
சமூக நிறுவனங்களில் குடும்பத்தின் பங்களிப்பைப் பற்றி விவரி.



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END SEMESTER EXAMINATION - APRIL - 2022

(CHOICE BASED CREDIT SYSTEM - OUTCOME BASED EDUCATION)

Reg. No.:

Date : 25.07.2022

Time : 10:00 am - 12:00 Noon

Max. Marks : 30

Programme : ALL UG PROGRAMMES

Course Code : 20UEGS21

Course Title : Environment and Gender Studies

Q.No.	SECTION - A	(5 * 3 = 15 Marks)	CO(s)	K - Level
	Answer ALL Questions			
1 (a)	Define the term environment. Discuss the scope of environment. சுற்றுச்சூழல் பற்றி விவரி மற்றும் அதன் தாக்கத்தைபற்றிவிவாதி		CO1	K1
	[OR]			
(b)	What is meant by Acid rain? அமில மழை என்றால் என்ன?		CO1	K1
2 (a)	Explain food web with its significance. உணவு வலையை அதன் முக்கியத்துவத்துடன் விளக்குக.		CO2	K1
	[OR]			
(b)	List out the biotic components of an Eco system. சுற்றுச்சூழல் அமைப்பில் உயிரியல் கூறுகள் பற்றி வரிசைபடுத்துக		CO2	K1
3 (a)	Write a brief note on Coal gasification, Fluidized Bed Combustion and Coal Liquefaction நிலக்கரி வாயுவாக்கம், திரவப்படுத்தப்பட்ட படுக்கை எரிப்பு, நிலக்கரி திரவமாக்கல் பற்றி குறிப்பு எழுதுக.		CO3	K2
	[OR]			
(b)	What is Wind energy? Discuss wind energy development in India. காற்று ஆற்றல் என்றால் என்ன? இந்தியாவில் காற்றாலை ஆற்றல் மேம்பாடு குறித்து விவாதி		CO3	K2
4 (a)	Classify the different types of Non Renewable energy resources. பல்வேறு வகையான புதுப்பிக்கமுடியாத ஆற்றல் வளங்களை வகைப்படுத்தவும்		CO4	K2
	[OR]			
(b)	Summarize the effects of Environmental pollution. சுற்றுச்சூழல் மாசுபாட்டின் விளைவுகளை சுருக்கமாக கூறுக.		CO4	K2
5 (a)	Briefly explain any three Genders. ஏதேனும் மூன்று பாலினங்களை சுருக்கமாக விளக்குக.		CO5	K2
	[OR]			
(b)	Explain two steps to follow in order to improve the status of transgender community in your country. உங்கள் நாட்டில் திருநங்கைகளின் சமூகத்தின் நிலையை மேம்படுத்த பின்பற்ற வேண்டிய இரண்டு படிகளை விளக்கு		CO5	K2

Q.No.	SECTION - B	(3 * 5 = 15 Marks)	CO(s)	K - Level
	Answer ANY THREE Questions			
6	What are the cause and effect of Global warming. புவி வெப்பமடைதலின் காரணம் மற்றும் விளைவு என்ன?		CO1	K2
7	Write a note on desert ecosystem. பாலைவன சுற்றுச்சூழல் அமைப்பு பற்றிய குறிப்பை எழுதவும்		CO2	K2
8	Describe the composition and origin of natural gas. இயற்கை எரிவாயுவின் கலவை மற்றும் தோற்றத்தை விவரிக்கவும்.		CO3	K3
9	What are the ecological impacts of mining? கரங்கத்தின் சுற்றுச்சூழல் பாதிப்புகள் என்ன?		CO4	K2
10	What is the difference between gender equity, gender equality and Women's Empowerment. பாலின சமங்கு, பாலின சமத்துவம் மற்றும் பெண்கள் அதிகாரமளித்தல் ஆகியவற்றுக்கு என்ன வித்தியாசம்.		CO5	K3



G.T.N. ARTS COLLEGE (AUTONOMOUS)

DINDIGUL – 624 005

(Affiliated to Madurai Kamaraj University)

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END SEMESTER EXAMINATIONS – APRIL 2022

Programme: B.Sc (CS)/ B.Sc. (IT) / B.C.A.

Course Code: 17UCSA21/17UITA21/17UCA21

Course Title : Operation Research

Date:12.07.2022

Time: 10 am – 1 pm

Max. Marks :75

SECTION – A

[10 X 1 = 10]

Answer ALL the Questions.

Choose the Correct Answer.

1. Operation Research is used for _____.
[a] scientific approach [b] decision making
[c] solution [d] variables
2. Decision variables in O.R. models are _____.
[a] controllable [b] uncontrollable
[c] parameters [d] constants
3. Linear programming problem must have a _____.
[a] objective (goal) that we aim to maximize or minimize
[b] constraints (restrictions) that we need to specify
[c] decision variables (activities) that we need to determine
[d] all of the above
4. Decision variables in an operation research model are _____.
[a] controllable [b] uncontrollable
[c] parameters [d] constraints

14. a) Using North West Corner rule to find an initial basic feasible solution

for the following transportation problem.

	W_1	W_2	W_3	a_i
F_1	2	7	4	5
F_2	3	3	1	8
F_3	5	4	7	7
F_4	1	6	2	14
b_j	2	9	18	

[OR]

b) Using Matrix Minima Method to find an initial basic feasible solution for the following transportation problem.

	D_1	D_2	D_3	D_4	Capacity
O_1	1	2	3	4	6
O_2	4	3	2	0	8
O_3	0	2	2	1	10
Demand	4	6	8	6	

15. a) A departmental head has four subordinates, and four tasks to be performed. The subordinates differ in efficiency, and the tasks differ intrinsic difficulty. His estimate, of the time each man would take to perform each task, is given below:

Tasks	Men			
	E	F	G	H
A	18	26	17	11
B	13	28	14	26
C	38	19	18	15
D	19	26	24	10

b) The following is the cost matrix of assigning 4 clerks to 4 key punching jobs. Find the optimal assignment if clerk 1 cannot be assigned to job 1:

Clerk	Job			
	1	2	3	4
1	-	5	2	0
2	4	7	5	6
3	5	8	4	3
4	3	6	6	2

What is the minimum total cost?

SECTION - C

[3 X 10 = 30]

Answer Any THREE Questions.

16. Explain the classifications of models by function and structure in detail.
17. A company makes two kind of leather belts. Belt A is high quality belt B is of lower quality. The respective profits are Rs.4.00 and Rs.3.00 per belt. Each belt of type A requires twice as much time as a belt of type B, and if All belts were of type B, the company could make 1000 per day. The Supply of leather is sufficient for only 800 belts per day (Both A and B Combined). Belt A requires a fancy buckle and only 400 per day are Available. There are only 700 buckles a day available for belt B. Determine the optimal product mix. Formulate this as a linear Programming problem and solve it by Graphical Method.



G.T.N. ARTS COLLEGE (AUTONOMOUS)

DINDIGUL – 624 005

(Affiliated to Madurai Kamaraj University)

(Accredited by NAAC with 'B' Grade)

END SEMESTER EXAMINATIONS – APRIL 2022

Programme : B.Sc. (IT)

Course Code: 17UITC51

Course Title : Data Communication

and Computer Networks

Date: 06.07.2022

Time: 2 pm – 5 pm

Max. Marks : 75

SECTION – A

[10 X 1 = 10]

Answer ALL the Questions.

Choose the Correct Answer.

1. A computer network permits sharing of _____.
[a] resources [b] information
[c] both a and b [d] all of the above
2. In a _____ connection, more than two devices can share a single link.
[a] Point to Point [b] Multi Point
[c] Primary [d] Secondary
3. “Parity bits” are used for which of the following purposes?
[a] Encryption of data [b] To transmit faster
[c] To detect errors [d] To identify the user
4. Synchronous transmission does not have _____.
[a] a start bit [b] a stop bit
[c] gaps between bytes [d] all of the above

- [a] logical ring
- [b] physical ring
- [c] both a and b
- [d] all of the above

6. ISDN is an example of _____ network.

- [a] packet switched
- [b] circuit switched
- [c] frame relay
- [d] ring based

7. TCP is _____.

- [a] connection oriented
- [b] reliable
- [c] both a and b
- [d] none of the above

8. In link state routing, the updating packet conveys the knowledge of the router about _____.

- [a] the whole internetwork
- [b] the neighborhood
- [c] either a or b
- [d] neither a nor b

9. The _____ is a repository of information linked together from points all over the world.

- [a] WWW
- [b] HTTP
- [c] HTML
- [d] FTP

10. The domain name space (tree) is divided into _____ different sections.

- [a] Two
- [b] Three
- [c] Four
- [d] Five

SECTION – B [5 X 7 = 35]

Answer ALL the Questions.

11. a) Write a brief note on network topologies with neat diagram.

[OR]

b) Describe about wireless communication with example.

[OR]

b) Describe about LAN transmission equipment with example.

13. a) Give a brief account on Token ring.

[OR]

b) Explain about designing the Wireless LAN Layout with example.

14. a) Write a note on Internetwork Protocols (IP).

[OR]

b) Describe about User Datagram Protocol.

15. a) Write a brief account on DNS with example.

[OR]

b) What is WWW? Explain about World Wide Web with example.

SECTION – C [3 X 10 = 30]

Answer Any THREE Questions.

16. Elaborate note on OSI reference model.

17. Discuss in detail about error detection and correction.

18. What is FDDI? Explain in detail about FDDI with example.

19. Define Routing? Give a brief account on routing principles with example.

20. Explain in detail about Electronic mail.

Answer Any THREE Questions.

16. Discuss quality and productivity factors in detail.
17. Explain about software cost factors.
18. Describe briefly about state-oriented notations.
19. Summarize about the fundamental design concepts
20. Elucidate the quality assurance in detail.



G.T.N. ARTS COLLEGE (AUTONOMOUS)

DINDIGUL - 624 005

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(Accredited by NAAC with 'B' Grade)

END SEMESTER EXAMINATIONS - APRIL 2022

Programme : B.Sc. IT

Date: 09.07.2022

Course Code: 17UITC52

Time: 2 pm - 5 pm

Course Title : Software Engineering

Max. Marks :75

SECTION - A

[10 X 1 = 10]

Answer ALL the Questions.

Choose the Correct Answer.

1. _____ document of source code describes the characteristics of the code.

[a] Internal	[b] External
[c] Middle	[d] Developer
2. The ability of a program to perform a required function under stated condition for a stated period of time is known as _____.

[a] Probability	[b] Reliability
[c] Accuracy	[d] Robustness
3. _____ cost estimation first estimates the cost to develop each module.

[a] Top-down	[b] Bottom-up
[c] Product complexity	[d] Product size
4. The ____ provides each estimate with a system definition and estimation form.

[a] estimator	[b] programmer
[c] coordinator	[d] chief programmer

5. _____ specify actions to be taken when events occurs under different sets of conditions.

- [a] Event table
- [b] Action table
- [c] State table
- [d] Transaction table

6. A _____ is represented as a bipartite directed graph.

- [a] Barry net
- [b] Boehm net
- [c] Petri net
- [d] John Carmack net

7. _____ is a fundamental characteristic of computer software.

- [a] Information hiding
- [b] Abstraction
- [c] Structure
- [d] Modularity

8. _____ cohesion of elements occurs when the output of one element is the input for the next element.

- [a] Functional
- [b] Sequential
- [c] Logical
- [d] Temporal

9. _____ is a technique for assessing the structural characteristics of source code.

- [a] Inspection
- [b] Walkthrough
- [c] Static Analysis
- [d] Quality Assurance

10. _____ tests are concerned with exercising the internal logic of a program and traversing particular execution paths.

- [a] Functional
- [b] Performance
- [c] Stress
- [d] Structure

Answer ALL the Questions.

11. a) Elucidate the phased life cycle model.

[OR]

b) Write a note on: Project Structure.

12. a) Illustrate the Delphi cost estimation.

[OR]

b) Explain about Staff-level estimation.

13. a) Write a note on: Algebraic Axioms.

[OR]

b) Elucidate RSL/REVS in detail.

14. a) Discuss the various types of coupling.

[OR]

b) Explain the stepwise refinement.

15. a) What is meant by walkthroughs? Explain.

[OR]

b) Explain in detail about Unit Testing.

4. Given the following code segment, what is in the string referenced by s1?

```
String s1 = "xy";
```

```
String s1 = "xy";
```

```
String s2 = s1;
```

```
s1 = s1 + s2 + "z";
```

[a] xyz

[b] xyxyz

[c] xy z

[d] xyxy z

5. Give the abbreviation of AWT _____.

[a] Applet Windowing Toolkit

[b] Abstract Windowing Toolkit

[c] Absolute Windowing Toolkit

[d] Abstract Window Toolkit

6. Which of the following class is derived from the container class?

[a] Component

[b] Panel

[c] MenuComponent

[d] List

7. When a class extends the Thread class, it should override _____

method of Thread class to start that thread.

[a] start()

[b] init()

[c] execute()

[d] run()

8. In java, how many streams are created for us automatically?

[a] 2

[b] 3

[c] 4

[d] 5

9. Which class provides stream to read binary data such as image etc. from the request object?

[a] ServletInputStream

[b] ServletOutputStream

[c] Both A & B

[d] None of the above

10. Which of the following is advantage of using JSP?

[a] Slow performance

[b] Using more memory

[c] Using less memory

[d] Better performance

SECTION - B

[5 X 7 = 35]

Answer ALL the Questions.

11. a) What is meant by constructor? Discuss the parameterized constructor with example.

[OR]

b) Compare procedural languages with object oriented languages

12. a) Elaborate the concept of method overriding in Java with example.

[OR]

b) Explain the use of 'this' keyword with an example.

13. a) Discuss about different event classes briefly.

[OR]

b) Explain any TWO components of AWT.

14. a) Write a Java applet program to draw a human face on appletviewer.

[OR]

b) State the differences between thread and process.

[OR]

b) List the strategies use to ensure a successful launch.

SECTION – C

[3 X 10 = 30]

Answer Any **THREE** Questions.

16. Explain briefly about Android Application Architecture.
17. Explain about the Native Android Actions.
18. Explain briefly about Android Menu systems.
19. Discuss briefly about Audio Effects.
20. Explain about the Map View and Map Activity.



G.T.N. ARTS COLLEGE (AUTONOMOUS)

DINDIGUL – 624 005

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(Accredited by NAAC with 'B' Grade)

END SEMESTER EXAMINATIONS – APRIL 2022

Programme: B.Sc. IT

Course Code: 17UITC61

Course Title: Android Programming

Date: 06.07.2022

Time: 10 am – 1 pm

Max. Marks :75

SECTION – A

[10 X 1 = 10]

Answer **ALL** the Questions.

Choose the **Correct Answer**.

1. API stand for _____
 - [a] Application Programming Interface
 - [b] Android Programming Interface
 - [c] Android Page Interface
 - [d] Application Page Interface
2. _____ the user has changed the device's language settings.
 - [a] mcc and mnc
 - [b] uniMode
 - [c] orientation
 - [d] locale
3. Broadcast _____ are used to notify applications of system or application events, extending the even-driven programming model between application.
 - [a] Intend
 - [b] Receivers
 - [c] Ordered
 - [d] Sticky

4. The _____ constant sets the size of a view to the minimum required to contain the contents it displays.

- [a] match-parent
- [b] wrap-content
- [c] text view
- [d] edit text

5. The Action Bar was initially introduced in _____ a platform release that was focused on providing the best user experience.

- [a] Android 4.0
- [b] Android 3.0
- [c] Android 11.0
- [d] Android 9.0

6. Android 4.0 introduced the _____ layout, a highly flexible layout designed to reduce nesting and simplify the creation of adaptive and dynamic layout.

- [a] Grid
- [b] Frame
- [c] Linear
- [d] Relative

7. Widget definition resources are stored as XML in the _____.

- [a] res/layout
- [b] res/values
- [c] res/xml
- [d] res/android

8. When a Media Player is prepared, calls _____ to begin playback of the associated media.

- [a] play
- [b] stop
- [c] pause
- [d] start

9. It is possible to use _____ for Android to track application installation referrals using the referrer URL parameter in links to Google Play.

- [a] Google Play
- [b] Google Maps
- [c] Google Analytics
- [d] Google Referral

10. The _____ returned includes all the position information available from the provider that supplied it.

- [a] Location Provider
- [b] Location Object
- [c] Location Manager
- [d] Location Privacy

SECTION – B
Answer ALL the Questions.

[5 X 7 = 35]

11. a) List the components of Android and describes it.
[OR]

b) Write short notes on types of Android applications.

12. a) Discuss about the Layouts.

[OR]

b) Write down the handling Sub-Activity Results.

13. a) Describes the types of Action Bar

[OR]

b) List the Tweened View animation types and discuss it.

14. a) Write the components of Widgets.

[OR]

b) Write short notes on Initializing Audio Content for Playback.



G.T.N. ARTS COLLEGE (AUTONOMOUS)

DINDIGUL – 624 005

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END SEMESTER EXAMINATIONS – APRIL 2022

Programme: B.Sc. IT

Date: 09.07.2022

Course Code: 17UITC62

Time: 10 am – 1 pm

Course Title: Software Testing

Max. Marks : 75

SECTION – A

[10 X 1 = 10]

Answer ALL the Questions.

Choose the Correct Answer.

1. In Software Development Life Cycle, who is the best person to catch a Defect?

[a] Software Tester

[b] Customers

[c] Designer

[d] Business Analyst

2. Alpha testing is done at _____.

[a] Developer's end

[b] User's end

[c] Developer's & User's end

[d] Software

3. Functional testing is a _____.

[a] Test design technique

[b] Test level

[c] SDLC Model

[d] Test type

4. What is the key objective of Integration testing?

[a] Design Errors

[b] Interface Errors

[c] Procedure Errors

[d] Verification

5. Acceptance testing is also known as _____.

- [a] Grey box testing [b] White box testing
[c] Alpha testing [d] Beta testing

6. Which of the below testing is related to Non-functional testing?

- [a] Unit Testing [b] Black-box Testing
[c] Performance testing [d] White Box testing

7. The standard error of regression analysis is known as _____.

- [a] average of coefficient [b] variance of residual
[c] mean of residual [d] average of residual

8. Performance testing is used to uncover _____ problems.

- [a] performance [b] validation
[c] verification [d] quality

9. What is the main task of test planning?

- [a] Measuring and analyzing result
[b] Evaluating exit criteria and reporting
[c] Determining the test approach
[d] Preparing the test specification

10. In size oriented metrics, metrics are developed based on the _____.

- [a] number of Functions [b] number of user inputs
[c] number of lines of code [d] amount of memory usage

SECTION – B

[5 X 7 = 35]

Answer ALL the Questions.

11. a) Write a note on White Box testing.

[OR]

b) Write about Testing, Verification and Validation.

12. a) Describe Black Box testing.

[OR]

b) Explain the Scenario testing.

13. a) Write a note on Non-Functional testing.

[OR]

b) Write about Acceptance testing.

14. a) Describe the methodology for Performance testing.

[OR]

b) Classify the types of Regression testing.

15. a) What is metrics? Write its scope.

[OR]

b) Write about test reporting.

SECTION – C

[3 X 10 = 30]

Answer Any THREE Questions.

16. Explain in detail (i) Software Quality, (ii) Quality Assurance, (iii) Quality Control.

17. Summarise the Integration testing in software Testing.

18. Explain the functional testing with examples.

19. Execute the process for performance testing plan.

20. Explain in detail the test planning.

4. _____ is the process of forwarding packet from home agent to care of Address (COA).

- [a] Calling
- [b] Call progressing
- [c] Call forwarding
- [d] Call packet

5. A GSM based packet switching technology, which is used to browse internet in mobile device is _____.

- [a] GSM Packet
- [b] GPRS
- [c] GPSS
- [d] CDMA

6. Short message, E-mail and MMS are the services of _____.

- [a] CDMA
- [b] FDMA
- [c] GSM
- [d] None of the above

7. _____ is an application of Adhoc network in Medical field.

- [a] Providing Educational Services
- [b] Identifying fighter plane
- [c] Getting Video Conference assistance from a surgeon
- [d] Proving traffic information

8. DSDV Stands for _____.

- [a] Destination sequence data vector
- [b] Data Sequence Destination Vector
- [c] Destination Sequence Distance Vector
- [d] Data Sector Destination value

9. _____ is not a mobile OS.

- [a] Mac Os
- [b] Palm OS
- [c] Symbian Os
- [d] Android

10. _____ technology allows buying and selling of goods and services through PDAs.

- [a] E- Business
- [b] E-Commerce
- [c] E-payment
- [d] E-Selling

SECTION – B

[5 X 7 = 35]

Answer ALL the Questions.

11. a) Briefly describe the applications of mobile computing.

[OR]

b) Narrate the structure of mobile computing applications.

12. a) Discuss the concept of DHCP (Dynamic Host Configuration Protocol).

[OR]

b) Briefly discuss the process of packet delivery.

13. a) Comment on architecture of CGM.

[OR]

b) Explain the organization of cellular network.

14. a) Analyze the design issues in ADHOC network.

[OR]

b) Narrate the characteristics of Reactive Routing Protocol.

15. a) Discuss the concept of mobile payment system.

[OR]

b) Write the architecture and features of android OS.

SECTION – C

[3 X 10 = 30]

Answer Any THREE Questions.

16. Explain about the model of Network Security.
17. Describe about the Stream Ciphers .
18. Write about Diffie Helman key exchange.
19. Discuss about (i) Elements of MIME
(ii) MIME content Types
20. Explain about the Worms.

Reg. No: _____



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END SEMESTER EXAMINATIONS – APRIL 2022

Programme: B.Sc. Information Technology

Date: 13.07.2022

Course Code: 17UITE52

Time: 2 pm – 5pm

Course Title : Cryptography and Network Security

Max. Marks :75

SECTION – A

[10 X 1 = 10]

Answer ALL the Questions.

Choose the Correct Answer.

1. _____ refers to any action that compromises the security of information owned by an organisation.
[a] Security [b] Security mechanism
[c] Security attack [d] Security service
2. _____ is used to produce a cipher text block of equal length.
[a] Cipher [b] Stream ciphers
[c] Block Cipher [d] Feistel Cipher
3. The simplest form of encryption has _____ types.
[a] 4 [b] 3
[c] 2 [d] 1

4. In AES the block size is _____.

[a] 4 [b] 16

[c] 128 [d] 192

5. The mechanism used to verify the integrity of a message is _____.

[a] Hash function [b] Encryption

[c] Decryption [d] Message authentication

6. _____ provides a measure of Authentication.

[a] Encryption [b] Function

[c] Decryption [d] Message encryption

7. _____ is the extension to the RFC822 framework.

[a] MIME [b] S/MIME

[c] SMTP [d] Php

8. _____ provides security services between TCP and applications that use TCP.

[a] SSL [b] SSL/TCS

[c] SET [d] SSLConnection

9. There are _____ classes of Intruders available.

[a] 3 [b] 2

[c] 4 [d] 1

10. _____ determines the types of Internet service that can be accessed.

[a] User control [b] Direction control

[c] Behaviour control [d] Service control

Answer ALL the Questions

11. a) Write about the security attacks.

[OR]

b) List the ingredients of Symmetric Encryption Schemes.

12. a) Discuss about the electronic cookbook mode.

[OR]

b) What are the requirements of public key cryptography.

13. a) Describe about the publicly available directory.

[OR]

b) Give Notes on (i) Properties of Digital signature ==>2 Marks

(ii) Requirements of Digital signature ==>5 Marks

14. a) Explain about the 5 Header fields in MIME.

[OR]

b) Write about the IPsec documents.

15. a) Define (i) Virus==>2 Marks

(ii) Types of Virus ==>5 Marks

[OR]

b) List the steps in digital immune system operation.

19. Explain classes, Responsibilities and Collaborators process in object oriented analysis.
20. Predict the Association in Object oriented Analysis.



G.T.N. ARTS COLLEGE (AUTONOMOUS)

DINDIGUL – 624 005

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(Accredited by NAAC with 'B' Grade)

END SEMESTER EXAMINATIONS – APRIL 2022

Programme: B.Sc. IT

Course Code: 17UITE61

Course Title: Introduction to Unified Modeling

Language

Date: 13.07.2022

Time: 10 am – 1 pm

Max. Marks :75

SECTION – A

[10 X 1 = 10]

Answer ALL the Questions.

Choose the Correct Answer.

1. What is the programming style of the object oriented conceptual model?
[a] Invariant relationships [b] Algorithms
[c] Classes and object [d] Goals, often expressed in a predicate calculus
2. Which model in system modeling depicts the dynamic behavior of the system?
[a] Context Model [b] Behavioral Model
[c] Data Model [d] Object Model
3. Use case descriptions consist of interaction _____.
[a] Use case [b] Actor
[c] product [d] Product & Actor
4. UML diagram that shows the interaction between users and system, is known as _____.
[a] Activity diagram [b] E-R diagram
[c] Use case diagram [d] Class diagram

technique analyzes and converts business requirements into specifications and finally into manual procedures.

- [a] Structured analysis [b] Structured analysis and design (SADT)
[c] Object Oriented Analyses [d] Structured design
6. In object oriented design it is important to describe the _____ between the associated classes in an application.
[a] protocol [b] function
[c] constraint [d] procedure
7. _____ patterns are constant and inactive.
[a] Generative [b] Anti
[c] Design [d] Non-generative
8. Class Responsibility Collaboration (CRC cards) is an important tool used in the _____ of object-oriented software.
[a] Analysis [b] Design
[c] Development [d] Specification
9. We classify different objects of the program with the same properties into a class using _____.
[a] Categorization [b] Instantiation
[c] Decomposition [d] Generalization
10. _____ is the process that groups data and procedures into an entity called objects
[a] Object development methodology
[b] Linear programming
[c] Structured programming
[d] Object oriented system development

Answer ALL the Questions.

11. a) Briefly the Booch System Development Process.
[OR]
b) Describe the difference between a patterns and frame work in UML.
12. a) Write about the Unified Modelling Language.
[OR]
b) Describe UML dynamic modelling.
13. a) Write about use-case Driven Object –Oriented Analysis.
[OR]
b) Distinguish between Static and Dynamic Model.
14. a) Explain the noun phase strategy for identifying tentative classes in a Problem domain.
[OR]
b) Write a note on common class patterns approach.
15. a) Describe a super-subclass structure.
[OR]
b) Write a class responsibility identifying Attributes and Methods.

SECTION – C

[3 X 10 = 30]

Answer Any THREE Questions.

16. Explain detail in RUMBAUGHET AL's Object Modelling Techniques.
17. Execute UML Meta Model with Diagram.

19. Discuss about the Errors.

20. Explain about the Loop optimization.



G.T.N. ARTS COLLEGE (AUTONOMOUS)

DINDIGUL - 624 005

(Affiliated to Madurai Kamaraj University)

(Accredited by NAAC with 'B' Grade)

END SEMESTER EXAMINATIONS - APRIL 2022

Programme: B.Sc. IT

Date: 13.07.2022

Course Code: 17UITE62

Time: 10 am - 1 pm

Course Title: Compiler Design

Max. Marks: 75

SECTION - A

[10 X 1 = 10]

Answer ALL the Questions.

Choose the Correct Answer.

1. The _____ uses the structure produced by the syntax analyzer to create a stream of simple instructions.

[a] code optimization

[b] intermediate code generator

[c] error handler

[d] syntax analyzer

2. _____ to mean any set of strings formed from some specific alphabet.

[a] String

[b] Substring

[c] Token

[d] Language

3. The sequence of productions used in some derivation is an example of an _____.

[a] implicit

[b] explicit

[c] parser

[d] terminals

4. The basic symbols of which strings in the language are composed we shall call _____.

[a] start symbol

[b] terminals

[c] non terminals

[d] production

5. A value associated with a grammar symbol is called a _____ of that symbol.

[a] semantic rule

[b] derivation

[c] translation

[d] output action

6. The _____ could be stored in the record.

[a] identifier

[b] token

[c] literals

[d] digit

7. The _____, always points to a particular position in the activation records for the currently active process.

[a] top

[b] stack pointer

[c] push

[d] pop

8. _____ can be detected both at compile time and runtime.

[a] Semantic errors

[b] Syntactic errors

[c] Dynamic errors

[d] Logic errors

9. The term _____ is used for the latter optimization.

[a] constant folding

[b] local

[c] global

[d] loop

10. Initially _____ contains all available registers.

[a] RSTACK

[b] TSTACK

[c] GENCODE

[d] STACK

SECTION - B
Answer ALL the Questions.

(5 X 7 = 35)

11. a) Discuss about the lexical analyzer.

[OR]

b) Construct the parser tree of IF statement.

12. a) Draw a parse tree for id + id * id.

[OR]

b) Write short notes on Top Down parsing.

13. a) Describes about the contents of a symbol table.

[OR]

b) Define Finite Automata. Describe it.

14. a) Discuss about the semantic errors.

[OR]

b) Write down the implementation of block structured languages.

15. a) Write about Global data flow analysis. Describe it.

[OR]

b) Describes about the Direct Acyclic Graph for DAG.

SECTION - C

[3 X 10 = 30]

Answer Any THREE Questions.

16. Explain briefly about the structure of a compiler.

17. Explain about the Shift Reduce parsing.

[Answer Any THREE Questions]

16. If A, B and C are three sets, then prove that

$$A \cap (B \cap C) = (A \cap B) \cap C$$

17. Prove that $(P \rightarrow (Q \rightarrow R)) \Rightarrow ((P \rightarrow Q) \rightarrow (P \rightarrow R))$ 18. Solve $T(K) - 7T(K-1) + 10T(K-2) = 6 + 8K$

with $T(0) = 1$ and $T(1) = 2$.

19. If A is a square matrix of order n, then prove that

$$A(\text{adj } A) = (\text{adj } A)A = |A| I_n, \text{ where } I_n \text{ is the identity matrix of order } n.$$

20. Prove that the maximum number of lines among all p point graph with

no triangles is $\left[\frac{p^2}{4} \right]$.

**G.T.N. ARTS COLLEGE (AUTONOMOUS)**

DINDIGUL - 624 005

(Affiliated to Madurai Kamaraj University)

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END SEMESTER EXAMINATIONS - APRIL 2022

Programme: B.Sc.CS, IT, BCA

Paper Code : 17UCSA11/17UITA11/17UCAAA11/

Course Title: DISCRETE MATHEMATICS

Date :12.07.2022

Time : 2 pm -5 pm

Max Marks : 75

Section - A

[10 X 1 = 10]

[Answer ALL the Questions]

Choose the Correct Answer.

1. A set of n elements has _____ subsets.

[a] n^2

[b] 2^n

[c] $2n$

[d] n

2. $(A \cup B)' =$ _____.

[a] $(A \cap B)'$

[b] $A' \cup B'$

[c] $A' \cap B'$

[d] $A' B'$

3. Which of the following is not a tautology ?

[a] $(p \vee q) \rightarrow p$

[b] $(p \vee (p \leftrightarrow q)) \rightarrow q$

[c] $(p \rightarrow q) \leftrightarrow (\neg p \vee q)$

[d] $(p \rightarrow q) \Rightarrow (\neg q \rightarrow \neg p)$

4. The value of $p \vee q =$ _____.

[a] p

[b] q

[c] $q \vee p$

[d] $p \vee r$

5. An n^{th} order linear relation is a homogeneous relation if $f(k) =$

for all k .

[a] 0

[b] 1

[c] $k+1$

[d] $k-1$

6. The If the characteristic equation is $a^2-7a+10=0$ then the roots are-----.

[a] -2,5

[b] 2,-5

[c] -2,-5

[d] 2,5

7. If A is a square matrix. Then $A + A^T$ is _____.

[a] skew symmetric

[b] invertible

[c] symmetric

[d] Transpose

8. The matrix $\begin{bmatrix} 2 & 3 & 1 \end{bmatrix}$ is a -----.

[a] diagonal matrix

[b] identity matrix

[c] row matrix

[d] column matrix

9. Petersen graph is a _____ graph.

[a] (5, 10)

[b] (15, 10)

[c] (10,15)

[d] (10, 5)

10. A graph that contains no cycles is called _____.

[a] acyclic graph

[b] loop

[c] Peterson graph

[d] regular graph

Section - B

[5 X 7 = 35]

[Answer ALL the Questions]

11. a) If $A = \{1, 2, 3, 4\}$ $B = \{2, 4, 6, 8\}$ and $C = \{3, 4, 5, 6\}$

Find (i) $A \cup (B \cup C)$ (ii) $A \cap (B \cap C)$

[OR]

b) Prove that (i) $(A \cup B)' = A' \cap B'$ (ii) $(A \cap B)' = A' \cup B'$

20. Explain addressing modes with example.

12. a) Draw the parsing tree for the formula $((p \rightarrow (\neg q)) \rightarrow (p \wedge q))$.

[OR]

b) Write down the truth table for the compound statement and state that tautologies. $(q \vee r) \rightarrow (p \wedge \neg r)$

13 a) Solve $D(K) - 8D(K-1) + 16D(K-2) = 0$ where $D(2) = 16, D(3) = 80$

[OR]

b) Calculate F_4 of the Fibonacci number using (i) recursion

(ii) iteration.

14. a) If A and B are $m \times n$ and $n \times r$ matrices respectively. Then prove

that $(AB)^T = B^T A^T$.

[OR]

b) If $A = \begin{pmatrix} 1 & -7 & 8 \\ 2 & 5 & 0 \\ 11 & 4 & -20 \end{pmatrix}$ then find $|A|$.

15. a) i) Let G be a (p, q) graph all of whose points have degree k or $k+1$.

If G has $t > 0$ points of degree k , show that $t = p(k+1) - 2q$.

ii) Prove that $\delta \leq \frac{2q}{p} \leq \Delta$.

[OR]

b) (i) Show that every connected graph has a spanning tree.

(ii) Let G be a (p, q) connected graph. then prove that $q \geq p - 1$.

a) If $A = \{1, 2, 3, 4\}$ $B = \{2, 4, 6, 8\}$ and $C = \{3, 4, 5, 6\}$



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DINDIGUL - 624 005

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END SEMESTER EXAMINATIONS - APRIL 2022

Programme : B. Sc IT

Course Code: 17UITA31

**Course Title : Digital Principles and
Computer Organization**

Date: 14.07.2022

Time: 2 pm - 5 pm

Max. Marks : 75

SECTION - A

[10 X 1 = 10]

Answer ALL the Questions.

Choose the Correct Answer.

1. The Excess-3 equivalent of BCD code 0101 is _____.
[a] 0000 [b] 0101
[c] 1000 [d] 0001
2. A binary number with four bit is called _____.
[a] Byte [b] nibble
[c] gate [d] megabyte
3. A full adder can be made out of _____.
[a] two half address [b] two half address & OR gate
[c] two half address & NOT gate [d] three half address
4. The fundamental product produces an output 0 for the corresponding input condition is _____.
[a] sum of product [b] sum of priority
[c] product of sum priority [d] product of sum

5. _____ means one to many.

- [a] demultiplexer [b] multiplexer
[c] decoder [d] encoder

6. Which device has one input and many outputs?

- [a] multiplexer [b] demultiplexer
[c] counter [d] flip-flop

7. _____ counters are sometimes called asynchronous counters.

- [a] ring [b] parallel
[c] ripple [d] serial

8. _____ is a storage device which retrieves the last item stored as first item.

- [a] Address map [b] Stack
[c] Interrupt [d] Subroutine

9. CPU consist of following parts.

- [a] CU & main memory [b] CU and ALU
[c] main memory and storage [d] OS and application

10. The storage element for a static RAM is the _____.

- [a] diode [b] flip-flop
[c] resistor [d] capacitor

SECTION – B

[5 X 7 = 35]

Answer ALL the Questions.

11. a) Discuss about basic gates.

[OR]

b) Discuss about i) NAND ii) NOR.

12. a) Simplify the Boolean Equation : $F = C(B+C)(A+B+C)$.

[OR]

b) Explain about 2's complement representation with examples.

13. a) Illustrate the function of BCD to decimal decoder with neat diagram.

[OR]

b) Write short note on.

i) EX-OR gate and its function ii) Encoders

14. a) Discuss about Stored Program Organization.

[OR]

b) Explain about Control Memory Organization.

15. a) What is meant by data transfer instruction? Explain.

[OR]

b) Define control word. List Encoding of Register Selection field and Encoding of ALU operation.

SECTION – C

[3 X 10 = 30]

Answer Any THREE Questions.

16. Convert the following:

- i) $(0.85)_{10} = (?)_2$
ii) $(23.6)_{10} = (?)_2$
iii) $(175)_{10} = (?)_8$
iv) $(C5E2)_{16} = (?)_2$
v) $(1110100101110100)_2 = (?)_{16}$.

17. Briefly explain about Arithmetic Building Blocks.

18. Describe the function of mux and Dmux with a diagram.

b) Evaluate $\int_0^{10} \frac{dx}{1+x^2}$ using Simpson's one - third rule.

15. a) Using Taylor's method solve $\frac{dy}{dx} = 1 + xy$ with $y_0 = 2$.

Find (i) $y(0.1)$ (ii) $y = 0.2$

[OR]

b) Solve $\frac{dy}{dx} = 1 - y$ $y(0) = 0$ using Euler's method, Find y at $x = 0.1$ and

$x = 0.2$. Compare the result with results of the exact solution.

SECTION - C [3 X 10 = 30]

Answer Any THREE Questions.

16. Find the negative root of $x^3 - 2x + 5 = 0$ correct to three decimal places by the Newton - Raphson method.

17. Solve the following system of equations using Gauss Seidal iteration method. $6x + 15y + 2z = 72$; $x + y + 54z = 110$; $27x + 6y - z = 85$.

18. Find the inverse of the matrix $A = \begin{pmatrix} 2 & 1 & 1 \\ 3 & 2 & 3 \\ 1 & 4 & 9 \end{pmatrix}$ using Gaursian method.

19. The population of a certain town is shown in the following table.

Year	1931	1941	1951	1961	1971
Population	40.62	60.80	79.95	103.56	132.65

Find the rate of growth of the population in 1961.

20. Compute $y(0.1)$ and $y(0.2)$ by Runge - Kutta method of 4th order for the differential equation. $\frac{dy}{dx} = xy + y^2$, $y(0) = 1$.



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END SEMESTER EXAMINATIONS - APRIL 2022

Programme: B.Sc. IT

Course Code: 17UITA41

Course Title : Numerical Methods

Date: 14.07.2022

Time: 10 am -1 pm

Max. Marks :75

SECTION - A

[10 X 1 = 10]

Answer ALL the Questions.

Choose the Correct Answer.

1. $x^3 - 3x + 1 = 0$ has a root lies between _____.

[a] 1 and 2 [b] 0 and 1

[c] 3 and 4 [d] -1 and 0

2. One root of $x^3 - 3x + 1 = 0$ lies between _____ and _____.

[a] (1,2) [b] (-1,0)

[c] 2,3 [d] 4,5

3. Stirling's formula is the _____ of gauss forward and gauss backward interpolation method

[a] addition [b] average

[c] difference [d] multiplication

4. If A is diagonally dominant, then the system is said to be a _____.

[a] converge [b] diverge

[c] dominant [d] diagonal system



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END SEMESTER EXAMINATIONS - APRIL 2022

Programme : B.Sc. IT

Course Code: 17UITC11

Course Title: Fundamentals of IT and HTML

Date: 08-07-2022

Time: 2 pm -5 pm

Max. Marks : 75

SECTION - A

[10 X 1 = 10]

Answer ALL the Questions.

Choose the Correct Answer.

1 _____ is the only language that computer's CPU directly understands

[a] PHP

[b] High level

[c] Machine code

[d] Java

2. Cray Y-MP/C90 is a _____.

[a] Microcomputer

[b] Minicomputer

[c] Mainframe

[d] Supercomputer

3. What is the full form of RAM?

[a] Remote Access Memory

[b] Random Access Memory

[c] Remote Assign Memory

[d] Random Assign Memory

4. Which of the following is type of image Scanner?

[a] Flat-held

[b] Hand led

[c] Flat bed

[d] Compact

[a] Cathode Ray Tube

[b] Carbon Race Tube

[c] Carbon Ray Tube

[d] Cathode Race Tube

6. A network comprising of multiple topologies is _____.

[a] Complex

[b] Hybrid

[c] Bus

[d] Star

7. Which is used to store information usually relevant to browsers and search engines?

[a] Cookies

[b] Meta Tags

[c] Tabs

[d] Head

8. We can type the text without any change using the _____ tag pair.

[a] `<p> </p>`[b] `<pre> </pre>`[c] `<c> </c>`[d] `<nc> </nc>`

9. What attribute is used to specify number of rows in a table?

[a] Rownum

[b] Rownumb

[c] m

[d] Rowspan

10. Which tag is not included in a frameset page?

[a] Body

[b] Title

[c] Div

[d] Head

SECTION – B**[5 X 7 = 35]****Answer ALL the Questions.**

11. a) Explain the classification of computers.

[OR]

b) What are Registers? And discuss about its types.

12. a) Compare Random access memory with Read only memory.

[OR]

b) Describe on digital camera and video camera.

13. a) Explain the different types of software with neat diagram.

[OR]

b) Write short notes on the following Internet Addressing

i) IP Address and ii) Domain Name

14. a) Explain the lists and its types.

[OR]

b) Discuss about different sections for designing a web page.

15. a) How to change the width of the table and cells using cells spanning in HTML? Give example program.

[OR]

b) Design a web page using frame and framesets by example.

SECTION – C**[3 X 10 = 30]****Answer Any THREE Questions.**

16. Explain the various generations of computer.

17. Discuss on various types of secondary storage devices.

18. Illustrate the various types of network topologies.

19. How to link a text with image and pictures? Design a webpage using link tag.

20. Discuss on form design with drop down list by example.



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DINDIGUL - 624 005

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END SEMESTER EXAMINATIONS - APRIL 2022

Programme : B.Sc.(IT)

Course Code: 17UITC21

Course Title : Programming in C

Date : 08.07.2022

Time: 10 am - 1 pm

Max. Marks :75

SECTION - A

[10 X 1 = 10]

Answer ALL the Questions.

Choose the Correct Answer.

1. Floating point numbers are defined in c by the keyword _____.
[a] int [b] float
[c] double [d] char
2. _____ constant is sequence of characters enclosed in double quotes.
[a] integer [b] double
[c] string [d] long
3. The number of tokens in the following statement
`printf("i=%d,&i=%x",i,&i);`
[a] 5 [b] 4
[c] 10 [d] 0
4. The _____ will exit only a single loop.
[a] break [b] continue
[c] next [d] goto

5. Every element in an array should end with _____

[a] \n

[b] \d

[c] \t

[d] \o

6. The _____ operator is true only when operands are true .

[a] AND(&&)

[b] NOT(!)

[c] OR(||)

[d] Assignment (=)

7. A variable declared inside a function is called _____.

[a] global

[b] local

[c] static

[d] dynamic

8. _____ is a collection of different data type.

[a] union

[b] pointer

[c] array

[d] struct

9. If return type is not explicitly specified, C will assure that is _____.

[a] void

[b] int

[c] float

[d] none

10. _____ variables can be assigned the address of another variable.

[a] pointer

[b] array

[c] struct

[d] union

SECTION – B

[5 X 7 = 35]

Answer ALL the Questions

11. a) Write the basic structure of C Program with example.

[OR]

b) Explain the types of Constants with example.

12. a) Write a program to find a factorial of a number using for statement.

[OR]

b) Write a program to find the sum of 'n' numbers using while statement.

13. a) Explain about one dimensional array with example.

[OR]

b) Explain gets() and puts() function with example.

14. a) What is recursion? Explain with example program.

[OR]

b) Discuss about Structure and Union with example.

15. a) How pointers are used in character strings? Explain.

[OR]

b) Discuss file operations in c.

SECTION – C

[3 X 10 = 30]

Answer Any THREE Questions.

16. Explain the various data types available in C.

17. Discuss various types of if statement in C.

18. Write a C program to sort an array in descending order for the following number using single dimensional array 52, 45,78,100,56,10.

19. Discuss about the category of functions.

20. Write a program to swap two numbers using pointers.

20. Explain how the function templates can be used to create a swap() and sort() functions with examples?



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DINDIGUL – 624 005

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END SEMESTER EXAMINATIONS – APRIL 2022

Programme : B.Sc. IT

Course Code: 17UITC31

Course Title : Object Oriented

Programming with C++

Date :07.07.2022

Time: 2 pm – 5pm

Max. Marks :75

SECTION – A

[10 X 1 = 10]

Answer ALL the Questions.

Choose the Correct Answer.

- _____ is used for grouping together elements with dissimilar type.
[a] Structure [b] Arrays
[c] Function [d] Operator
- _____ refers to the names of variables, functions, arrays, classes etc.. created by the programmer.
[a] identifiers [b] keywords
[c] tokens [d] strings
- What is default access specifier for data members or member functions declared within a class without any specifier, in C++?
[a] Private [b] Protected
[c] Public [d] Depends on compiler
- _____ destroys the objects when they are no longer required.
[a] Destructor [b] Constructor
[c] Const [d] Delete

5. To convert class type to a basic type, it quietly calls the _____ function to the job

- [a] operator overloading [b] casting operator
[c] source class [d] friend function

6. A derived class with only one base class is called _____ inheritance.

- [a] single [b] multiple
[c] multilevel [d] hierarchical

7. _____ means one name having multiple forms.

- [a] Inheritance [b] data abstraction
[c] polymorphism [d] data hiding

8. In C++, hierarchy of stream classes used for input and output operations are declared in the header file is known as _____.

- [a] ios [b] istream
[c] iostream [d] ostream

9. Which of the following is not used as a file opening mode?

- [a] ios::trunc [b] ios::binary
[c] ios::in [d] ios::ate

10. _____ moves get pointer input to a specified location.

- [a] Tellg() [b] seekg()
[c] tellp() [d] seekp()

SECTION – B

[5 X 7 = 35]

Answer ALL the Questions.

11. a) Write a benefit and application of OOPS.

[OR]

b) Explain the identifiers and constants?

--2--

12. a) What is class? How to define a class?

[OR]

b) What is parameterized constructors? Explain with example.

13. a) What is Operator Overloading?

[OR]

b) Explain single inheritance with an example.

14. a) Describe pointers to Function in C++.

[OR]

b) Write about stream classes.

15. a) Define the following :

- i) Opening files using open()
ii) Detecting end-of-file

[OR]

b) Explain: i) class templates with multiple parameters

- ii) overloading of template functions
iii) non-type template arguments

SECTION – C

[3 X 10 = 30]

Answer Any THREE Questions.

16. Explain the basic concepts of object oriented programming?

17. Explain with example

- a) Constructors and its properties b) Destructors

18. Discuss about Overloading Unary Operators in C++ with an example.

--3--

Answer Any **THREE** Questions.

16. Briefly explain Single Linked List and its Basic operations.
17. Write an algorithm and C program to evaluate a postfix expression using stack.
18. Describe the searching element in BST briefly.
19. Briefly explain about Quick Sort with example data. Also write algorithm and C program for Quick Sort.
20. Describe about Prim's minimum spanning tree algorithm by examples.



G.T.N. ARTS COLLEGE (AUTONOMOUS)

DINDIGUL - 624 005

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END SEMESTER EXAMINATIONS - APRIL 2022

Programme: B.Sc. IT

Course Code: 17UITC32

Course Title: Data Structures

Date: 11.07.2022

Time: 2 pm - 5 pm

Max. Marks :75

SECTION - A

[10 X 1 = 10]

Answer ALL the Questions.

Choose the Correct Answer.

1. _____ allocation memory refers to the allocation of memory during compilation.
[a] Dynamic [b] Static
[c] Default [d] Free
2. Each node contains the address of the adjacent node and the last node will have the address of the first node is called _____.
[a] Single Linked List [b] Doubly Linked List
[c] Circular Linked List [d] Multiple Linked List
3. _____ can be made to point to the first free location where an element can be added.
[a] Push [b] Top
[c] Pop [d] Create

Answer ALL the Questions.

4. _____ is a queue which allows insertions and deletions at both ends.
- [a] Stack [b] Queue
[c] Linked List [d] Dequeue
5. Nodes that do not have any children is called _____.
- [a] Leaf [b] Parent
[c] Root [d] Subtree
6. BFS stands for _____.
- [a] Breadth For Search [b] Break First Search
[c] Breadth First Search [d] Breadth For Search
7. _____ involves rearranging records in the order of their values.
- [a] Searching [b] Sorting
[c] Indexing [d] Sequence
8. The best case insertion sorting time is _____.
- [a] $O(n)$ [b] n
[c] $O(\log n)$ [d] $\log n$
9. A _____ in a graph is path that starts and ends at the same vertex.
- [a] Cycle [b] Acyclic
[c] Connected [d] Simple
10. BFS stands for _____.
- [a] Breadth For Search [b] Break First Search
[c] Breadth First Search [d] Breadth For Search

11. a) Write the 4 basic steps involved in problem solving. Also Explain Problem Solving Strategies in data Structure.
- [OR]
- b) Write a C program to insert an element in a Doubly Linked List after node M.
12. a) Explain Tower of Hanoi problem with algorithm and diagrams.
- [OR]
- b) Write an algorithm to insert and delete an element into the queue.
13. a) Write about the properties of a BST.
- [OR]
- b) Discuss about the representation of binary trees.
14. a) Define the following terms. Sorting, Internal Sorting, External Sorting, Stable Sorting, Unstable Sorting, Inplace Sorting, Indirect Sorting.
- [OR]
- b) Define Shell sort. Write a C program for Shell sort.
15. a) Explain different types of graphs and representation of graph with example.
- [OR]
- b) Write an algorithm for breadth first search with example.



G.T.N. ARTS COLLEGE (AUTONOMOUS)

DINDIGUL – 624 005

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END SEMESTER EXAMINATIONS – APRIL 2022

Programme : B.Sc. I T

Course Code: 17UITC41

Course Title : Relational Database

Management Concepts

Date :07.07.2022

Time: 10 am- 1 pm

Max. Marks :75

SECTION – A

[10 X 1 = 10]

Answer ALL the Questions.

Choose the Correct Answer.

1. A _____ is used to define the external and conceptual schema.
[a] SQL [b] DDL
[c] DML [d] TCL
2. Dependents is an example of a _____ entity set.
[a] weak [b] Strong
[c] Foreign [d] Primary
3. Expansion of IC is _____.
[a] Internal Constraints [b] Internal Column
[c] Integrity Constraints [d] Integrity Column
4. A _____ is a variable that takes on tuples of a particular relation schema as values.
[a] Tuple Variable [b] Set variable
[c] Schema Variable [d] Domain Variable

5. A _____ is a query that another query embedded within it

[a] Algebra

[b] Nested Query

[c] Difference

[d] Set

6. A _____ is a relationship between two attributes _____.

[a] Functional Dependency

[b] Normalization

[c] Trigger

[d] Decomposition

7. The set of all FDs implied by a given set of F of FDs is called the _____.

[a] Union

[b] Axiom

[c] Closure of F

[d] Infer

8. A join dependency is a further generalization of _____.

[a] ABCD

[b] FD

[c] MVDs

[d] BCD

9. _____ means only authorizes users should be allowed to modify data.

[a] Secrecy

[b] Integrity

[c] Availability

[d] Mechanism

10. The _____ command right to insert rows with values in the named column of the table named as object.

[a] insert

[b] drop

[c] update

[d] delete

SECTION – B

[5 X 7 = 35]

Answer ALL the Questions.

11. a) What is the importance of a database management system?

[OR]

b) What are the steps in designing a database?

12. a) Describe the set operations of relational algebra.

[OR]

b) Briefly explain the domain relational calculus.

13. a) Explain null Values..

[OR]

b) Write short note on BCN7.

14. a) Briefly notes on procedure in PL/SQL.

[OR]

b) How to handle the error in PL/SQL?

15. a) What is an authorization graph? Explain SQL GRANT and REVOKE handle terms of their effect on this graph.

[OR]

b) What are the main security considerations in designing a database application?

SECTION – C

[3 X 10 = 30]

Answer Any THREE Questions.

16. How does conception design fit within ER-Model? With an example.

17. Explain the relational algebra with examples.

18. Explain normalization.

19. What is cursor? How to manage in different ways?

20. Describe about security for internet application.

12. a) Describe the set operations of relational algebra.

18. Discuss about any three Processor Scheduling Algorithms with example.

19. Illustrate any two Page Replacement Strategies in Virtual Memory Management.

20. Briefly explain about file allocation method with suitable example.



G.T.N. ARTS COLLEGE (AUTONOMOUS)

DINDIGUL - 624 005

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END SEMESTER EXAMINATIONS - APRIL 2022

Programme: B.Sc. IT

Course Code: 17UITC42

Course Title : Operating System Concepts

Date: 11.07.2022

Time: 10 am - 1 pm

Max. Marks : 75

SECTION - A

[10 X 1 = 10]

Answer ALL the Questions.

Choose the Correct Answer.

1. Assembly languages are developed to improve _____ of the programming process.
[a] Accuracy [b] Speed
[c] Memory [d] Ease
2. To access the services of operating system, the interface is provided by _____.
[a] system calls [b] API
[c] library [d] assembly instructions
3. Semaphore is a/an _____ to solve the critical section problem
[a] Hardware for a system [b] Program for a system
[c] Integer Variable [d] Special instruction
- 4 The thread creating the lines to be printed is often called a _____.
[a] spooler [b] despooler
[c] buffer [d] process

5. A problem encountered in multitasking when a process is perpetually denied necessary resources is called _____.

- [a] deadlock [b] starvation
[c] inversion [d] aging

6. Which of the following scheduling algorithms gives minimum average waiting time?

- [a] SJF [b] FCFS
[c] Round Robin [d] Priority

7. _____ replacement strategy replaces the page that has been in the system the longest.

- [a] RAND [b] FIFO
[c] LRU [d] LFU

8. Effective access time is directly proportional to _____.

- [a] memory access time [b] hit ratio
[c] page fault rate [d] turnaround time

9. The information about all files is kept in _____.

- [a] Swap Space [b] Operating System
[c] Separate Directory Structure [d] Both b & c

10. Path beginning at the root directory is called _____.

- [a] checkpoint [b] direct path
[c] circular path [d] absolute path

SECTION – B

[5 X 7 = 35]

Answer ALL the Questions.

11. a) Explain the core components of operating system.

[OR]

b) Write short notes on Process Control Block (PCB).

12. a) Explain about hardware solution to the mutual exclusion problems.

[OR]

b) Explain about Dekker's algorithm for mutual exclusion.

13. a) Explain about Deadlock detection with their types.

[OR]

b) Discuss about Scheduling Criteria.

14. a) What are the memory management strategies designed to obtain the best possible use of main memory?

[OR]

b) Explain the various characteristics of variable-partition multiprogramming.

15. a) Explain about rotational optimization.

[OR]

b) Describe about file system in detail.

SECTION – C

[3 X 10 = 30]

Answer Any THREE Questions.

16. Describe the various architectures of Operating System

17. Briefly explain about semaphores.



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END SEMESTER EXAMINATION - APRIL - 2022

(CHOICE BASED CREDIT SYSTEM - OUTCOME BASED EDUCATION)

Reg. No.:

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Programme : ALL UG PROGRAMMES

Course Code : 20UEGS21

Course Title : Environment and Gender Studies

Date : 25.07.2022

Time : 10:00 am - 12:00 Noon

Max. Marks : 30

Q.No.

SECTION - A

(5 * 3 = 15 Marks) CO(s) K - Level

Answer ALL Questions

1. (a) Define the term environment. Discuss the scope of environment.
சுற்றுச்சூழல் பற்றி விவரி மற்றும் அதன் தாக்கத்தைப்பற்றிவிவாதி
CO1 K1
- (b) What is meant by Acid rain?
அமில மழை என்றால் என்ன?
[OR]
CO1 K1
2. (a) Explain food web with its significance.
உணவு வலையை அதன் முக்கியத்துவத்துடன் விளக்குக.
[OR]
CO2 K1
- (b) List out the biotic components of an Eco system.
சுற்றுச்சூழல் அமைப்பில் உயிரியல் கூறுகள் பற்றி வரிசைப்படுத்துக
CO2 K1
3. (a) Write a brief note on Coal gasification, Fluidized Bed Combustion and Coal Liquefaction
நிலக்கரி வாயுவாக்கம், திரவப்படுத்தப்பட்ட படுக்கை எரிப்பு, நிலக்கரி திரவமாக்கல் பற்றி குறிப்பு எழுதுக.
[OR]
CO3 K2
- (b) What is Wind energy? Discuss wind energy development in India.
காற்று ஆற்றல் என்றால் என்ன? இந்தியாவில் காற்றாலை ஆற்றல் மேம்பாடு குறித்து விவாதி
CO3 K2
4. (a) Classify the different types of Non Renewable energy resources.
பல்வேறு வகையான புதுப்பிக்கமுடியாத ஆற்றல் வளங்களை வகைப்படுத்தவும்
[OR]
CO4 K2
- (b) Summarize the effects of Environmental pollution.
சுற்றுச்சூழல் மாசுபாட்டின் விளைவுகளை சுருக்கமாக கூறுக.
CO4 K2
5. (a) Briefly explain any three Genders.
ஏதேனும் மூன்று பாலினங்களை சுருக்கமாக விளக்குக.
[OR]
CO5 K2
- (b) Explain two steps to follow in order to improve the status of transgender community in your country.
உங்கள் நாட்டில் திருநங்கைகளின் சமூகத்தின் நிலையை மேம்படுத்த பின்பற்ற வேண்டிய இரண்டு படிகளை விளக்கு.
CO5 K2

SECTION - B

(3 * 5 = 15 Marks) CO(s) K - Level

Answer ANY THREE Questions

6. What are the cause and effect of Global warming.
புவி வெப்பமடைதலின் காரணம் மற்றும் விளைவு என்ன?
CO1 K2
7. Write a note on desert ecosystem.
பாலைவன சுற்றுச்சூழல் அமைப்பு பற்றிய குறிப்பை எழுதவும்
CO2 K2
8. Describe the composition and origin of natural gas.
இயற்கை எரிவாயுவின் கலவை மற்றும் தோற்றத்தை விவரிக்கவும்.
CO3 K3
9. What are the ecological impacts of mining?
சுரங்கத்தின் சுற்றுச்சூழல் பாதிப்புகள் என்ன?
CO4 K2
10. What is the difference between gender equity, gender equality and Women's Empowerment.
பாலின சமப்பங்கு, பாலின சமத்துவம் மற்றும் பெண்கள் அதிகாரமளித்தல்
பற்றி விளக்கு என்ன வித்தியாசம்.
CO5 K3



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END SEMESTER EXAMINATIONS - APRIL 2022

Programme : All UG programmes
Course Code : 20CCOM31/20CCCA31
Course Title : Industrial Organization

Date : 13.07.2022
Time : 10 am - 12 pm
Max Marks : 30

SECTION - A

[5 X 3 = 15]

Answer ALL the Questions.

1. a) Define industrial organization and state its features.

அ) தொழில் அமைப்பின் இலக்கணத்தை கூறி அவற்றின் சிறப்பியல்புகளை எடுத்துரைக்க.

[OR]

b) State the scope of industrial organization.

ஆ) தொழில் கட்டமைப்புக்கான வருங்கால சாத்தியங்கள் பற்றி கூறுக.

2. a) How to enter into a new business?

அ) புதிய தொழிலில் எவ்வாறு உள் நுழைவது? விளக்குக.

[OR]

b) List out the government support for establishing new enterprise.

ஆ) புதிய தொழில் நிறுவனம் தொடங்குவதற்கு அரசாங்கத்தின் பங்களிப்பை வரிசைப்படுத்துக.

3. a) What is ideal location?

அ) ஒரு சிறந்த இட அமைவு என்றால் என்ன?

[OR]

b) Bring out the salient features of appropriate location

ஆ) தொழில் தொடங்க தேவையான இடத்தை தேர்வு செய்வதில் உள்ள முக்கிய அம்சங்களை எடுத்து கூறுக.

4. a) Distinguish between product layout and process layout.

அ) தயாரிப்பு தரவமைப்புக்கும் செயல்முறை அமைப்புக்கும் உள்ள வேறுபாட்டை விளக்குக.

[OR]

b) Mention the objectives of good layout.

ஆ) ஒரு நல்ல தளவமைப்பின் நோக்கங்கள் குறித்து கூறுக.

5. a) List out the various types of combination.

அ) வணிக சேர்க்கையின் வகைகளை வரிசைப்படுத்துக.

[OR]

b) Difference between Horizontal combination vs Vertical combination

ஆ) கிடைமட்ட சேர்க்கைக்கும் செங்குத்து சேர்க்கைக்கும் உள்ள வித்தியாசத்தை கூறுக.

Answer Any THREE Questions.

6. Explain the factors influencing the location of industry.

தொழில் அமைப்பு ஏற்படுவதற்கான காரணிகளை விவரிக்க.

7. List out the slow grow of business combination in India.

இந்தியாவில் மிதமான வணிக சேர்க்கைக்கான காரணிகளை வரிசைப்படுத்துக.

8. Explain the tools used for designing layout

ஒரு நல்ல தளவமைப்புகளை வடிவமைக்க பயன்படும் கருவிகளை விளக்குக.

9. Explain the forms of business organization

ஒரு வணிக சேர்க்கைகளின் வடிவங்களை விவரி.

10. Explain the role of modern business for the economic development of a nation.

ஒரு நாட்டின் பொருளாதார முன்னேற்றத்திற்கு வணிக அமைப்பின் பங்களிப்பை விவரி.



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END SEMESTER EXAMINATIONS – APRIL 2022

Programme: All Second Year UG
Course Code: 20USSS31
Course Title: Soft Skills

Date: 26.07.2022
Time: 10 am – 12 pm
Max. Marks: 50

SECTION – A

[5 X 4 = 20]

Answer any FIVE Questions.

1. Define soft skills and its kinds.
2. What are SMART goals?
3. Write a note on time stressors.
4. Mention few methods of effective time management.
5. What is brainstorming? What is it used for?
6. List the behavioral characteristics of assertive communication.
7. What is social awareness? What are the skills associated with social awareness?
8. Explain civic responsibility?

SECTION – B

[3 X 10 = 30]

Answer Any THREE Questions.

9. Self esteem and positive attitude play a vital role in present scenario – Discuss.
10. What are SMART goals? How does SMART goal setting work?

12. Elaborate the five elements that define Emotional Intelligence.
13. What is Sustainable development and how is conservation of natural resources possible?



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END SEMESTER EXAMINATION – APRIL 2022

Programme: All Second Year UG

Course Code: 20USSS41

Course Title: Soft Skills II

Date: 26.07.2022

Time: 2 pm – 4 pm

Max. Marks: 50

SECTION – A

[5 X 4 = 20]

Answer any FIVE Questions.

1. Define employability skills.
2. Why CV is important in acquiring a job?
3. Why communication and interpersonal relations are important in workplace?
4. Describe paralanguage.
5. List some important rules for email etiquette.
6. Discuss the significance of team spirit.
7. State the importance of grooming in workplace.
8. What do you mean by workplace etiquette?

SECTION – B

[3 X 10 = 30]

Answer Any THREE Questions.

9. Can a student consciously raise his/her employability quotient? If so, how?
10. Explain the types of communication.

11. What are the seven Cs of communication? How are they relevant to business correspondence?
12. How can companies foster team work among their employees?
13. What is communication etiquette? Why it is important in workplace?



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END SEMESTER EXAMINATION - APRIL - 2022

(CHOICE BASED CREDIT SYSTEM - OUTCOME BASED EDUCATION)

Programme : ALL UG PROGRAMME

Course Code : 20UTAL11

Course Title : தற்காலக் கவிதையும் சிறுகதையும்

Reg. No.:

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Date : 01.07.2022

Time : 2:00 PM - 5:00 PM

Max. Marks : 60

Q.No.

SECTION - A

Answer ALL Questions

(10 * 1 = 10 Marks)

CO(s)

K -

Level

1. கீழ்க்கண்டவற்றுள் நாமக்கல் கவிஞரின் கவிதை எது?
1.மாணவனுக்கு
2.எல்லாம் நானே
3.தமிழின் இனிமை
4.காணி நிலம் வேண்டும்
CO1 K1
2. தொடுவானம் தான் எல்லை என்று தாராபாரதி யாரிடம் கூறுகிறார்?
1.இளைஞர்களிடம்
2.குழந்தைகளிடம்
3.தோழர்களிடம்
4.சமூகத்திடம்
CO1 K1
3. “கண்ணீரின் வெப்பத்தால் என் கவிதை முழுமை பெறாமலே முடிந்து விடுகிறது” என்று கூறியவர் யார்?
1.நா.காமராசன்
2.மீரா
3.மு.மேத்தா
4.அப்துல் ரகுமான்
CO2 K1
4. தோசை கவிதை யாருடைய வாழ்வியலைப் படம் பிடித்துக் காட்டுகின்றது?
1.ஆண்கள்
2.பெண்கள்
3.குழந்தைகள்
4.திருநங்கைகள்
CO2 K1
5. பொன்னகரம் சிறுகதையின் மையக்கரு எது?
1.குழந்தை தொழிலாளர் பிரச்சனை
2.சாதிப்பாகுபாடு
3.பொருளாதார ஏற்றத்தாழ்வு
4.வறுமை
CO3 K1
6. ஓர் உல்லாசப் பயணம் சிறுகதையில் எந்த இடத்திற்குச் சுற்றுலா சென்றனர்?
1.கொடைக்கானல்
2.கன்னியாகுமரி
3.ஊட்டி
4.குற்றாலம்
CO3 K1
7. கீழ்க்கண்டவற்றுள் ஐகாரக் குறுக்கம் எது?
1.சார்பு
2.சங்கு
3.இடையன்
4.கொக்கு
CO4 K1
8. வியங்கோள் வினைமுற்றில் வல்லினம் மிகாது என்பதற்குச் சான்றினைத் தேர்வு செய்க.

	1.நாடு கண்டான்	2.வாழ்க தமிழ்		
	3.கூடு கட்டு	4.குடி தண்ணீர்		
9.	பூங்கொடி, வீரகாவியம் போன்ற நூல்களின் ஆசிரியர் பெயரைச் சுட்டுக?		CO5	K1
	1.முடியரசன்	2.கண்ணதாசன்		
	3.வாணிதாசன்	4.பாரதிதாசன்		
10.	தாசுரின் வங்க மொழிக் கதைகளை தமிழில் மொழிபெயர்த்தவர் யார்?		CO5	K1
	1.சுஜாதா	2.சி.சு.செல்லப்பா		
	3.பாரதியார்	4.அகிலன்		

Q. No.	SECTION - B Answer ALL Questions	(5 * 4 = 20 Marks)	CO(s)	K - Level
11. (a)	சிறுவன் புத்தரைக் கண்ட நிகழ்வை எழுதுக.		CO1	K2
	[OR]			
(b)	தாராபாரதி குறிப்பிடும் தன்னம்பிக்கை, சுயமுன்னேற்றம் குறித்து விளக்குக.		CO1	K2
12. (a)	'ஓடு! ஓடு! சங்கிலி' கவிதையில் சிற்பி உணர்த்தும் தாய்மையின் சிறப்புகளைப் பட்டியலிடுக.		CO2	K2
	[OR]			
(b)	தமிழ்ச்சி தங்கப்பாண்டியனின் 'புன்னகையின் வன்முறை' கவிதையின் மையக்கருத்தை எடுத்துரைக்க.		CO2	K2
13. (a)	பி.எஸ்.இராமையாவின் சிறுகதை உணர்த்தும் கருத்தைத் தொகுத்துரைக்க.		CO3	K2
	[OR]			
(b)	ஓர் உல்லாசப் பயணம் சிறுகதையின் கதைக்கருவை விளக்குக.		CO3	K2
14. (a)	சார்பெழுத்துக்களில் அளபெடை பற்றி விவரிக்க..		CO4	K1
	[OR]			
(b)	மொழிக்கு முதலில் வரும் எழுத்துக்களில் உயிர் எழுத்துக்களைச் சான்றுடன் விவரிக்க		CO4	K1
15. (a)	இருபதாம் நூற்றாண்டு மரபுக்கவிஞர்களான பாரதியார் மற்றும் பாரதிதாசன் ஆகியோரின் கவித்திறம் குறித்து எழுதுக?.		CO5	K1
	[OR]			
(b)	சிறுகதை இலக்கிய வளர்ச்சிக்குப் புதுமைப்பித்தனின் பங்களிப்புக் குறித்து எடுத்துக்காட்டுக?		CO5	K1

Q. No.	SECTION - C Answer ANY THREE Questions	(3 * 10 = 30 Marks)	CO(s)	K - Level
16.	செய்யும் தொழிலே தெய்வம் கவிதைப் பொருளைத் தெளிவுபடுத்துக		CO1	K2
17.	'தேசப்பிதாவிற்கு ஒரு தெருப்பாடகனின் அஞ்சலி' கவிதை சுட்டுகின்ற சமூகக் கருத்துக்களைத் தொகுத்துரைக்க.		CO2	K2
18.	நாற்காலியும் அதன் பயன்பாடும் குறித்து ஆராய்க.		CO3	K3
19.	மொழி முதல் எழுத்துக்கள் பற்றி விவரிக்க		CO4	K2

முயற்சி திருவினையாக்கும் என்ற தலைப்பில் 16 வரிகளுக்குக்
குறையாமல் கவிதை எழுதுக

CO5 K2

Reg. No.:

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G.T.N. ARTS COLLEGE(AUTONOMOUS)

(Affiliated to Madurai Kamaraj University || Accredited with 'B' Grade by NAAC)

END SEMESTER EXAMINATION - APRIL - 2022

(CHOICE BASED CREDIT SYSTEM - OUTCOME BASED EDUCATION)

Date : 25.07.2022

Time : 2:00 PM - 4:00 PM

Max. Marks : 30

Programme : ALL UG PROGRAMMES
Course Code : 20UVEV11
Course Title : Value Education

No.	SECTION - A Answer ALL Questions	(5 * 3 = 15 Marks)	CO(s)	K - Level
1(a)	State the Basic Characteristics of Values. மதிப்புகளின் அடிப்படைப் பண்புகளைக் கூறுக.		CO1	K1
	[OR]			
2(a)	Describe Forgiveness. மன்னிப்பு - விளக்குக.		CO1	K1
2(a)	List out the kinds of Karma in Hindu Scriptures. இந்து வேதங்களில் உள்ள கர்ம வகைகளைப் பட்டியலிடுக.		CO2	K1
	[OR]			
3(a)	"religion promotes social harmony and gives positive goals in life"-state the reason. "மதங்கள் சமூக நல்லிணக்கத்தையும் நேர்மறை இலக்குகளையும் அளிக்கின்றன"-காரணம் கூறுக.		CO2	K1
3(a)	Define Nehru's part in religious secularism. மதச்சார்பின்மையில் நேருவின் பங்கு குறித்து விவரிக்க.		CO3	K2
	[OR]			
4(a)	Explain the actions to be followed during Secularism. மதச்சார்பின்மையின் போது பின்பற்ற வேண்டிய நடவடிக்கைகளை விளக்குக.		CO3	K2
4(a)	Define professional values. தொழில்முறை மதிப்புகளை விளக்குக.		CO4	K2
	[OR]			
5(a)	Describe how Television stands primordial in supporting Democracy. குடியரசை ஆதரிக்கின்ற ஊடகங்களில் முதன்மையானது தொலைக்காட்சி என்பதை விவரிக்க.		CO4	K2
5(a)	Briefly write the role of educational institutions in value formation. மதிப்புக்கல்வி உருவாக்கத்தில் கல்வி நிறுவனங்களின் பங்கை விவரிக்க.		CO5	K2
	[OR]			
6(a)	Explain the role of family in value formation. மதிப்பு உருவாக்கத்தில் குடும்பத்தின் பங்கினை விளக்குக.		CO5	K2
Q.No.	SECTION - B Answer ANY THREE Questions	(3 * 5 = 15 Marks)	CO(s)	K - Level
6.	What do you mean by Honesty and describe anyone its theories.		CO1	K2

நேர்மை என்றால் என்ன என்பதைக் கூறி அதன் கோட்பாடுகள் ஏதேனும் ஒன்றினை விவரிக்க.

7. Explain the value of 'Brotherhood' in Islam. CO2 K2
இஸ்லாம் சமயம் வலியுறுத்தும் சகோதரத்துவத்தின் மதிப்பினை விளக்குக.
8. Sketch the Five levels of Political Awareness. CO3 K3
அரசியல் விழிப்புணர்வின் ஐந்து நிலைகளை வரையறுக்க.
9. Interpret the accountability and Team Spirit. CO4 K2
பொறுப்புணர்வு மற்றும் குழுஉணர்வு - வரையறுக்க.
10. Describe the role of the family in social institutions. CO5 K3
சமூக நிறுவனங்களில் குடும்பத்தின் பங்களிப்பைப் பற்றி விவரி.

Internal Audit 2021-2022

1. K. B. P
30/9/22

2. K. B. P
30.9.2022

3. K. B. P
30/9/22

External Audit 2021-2022.

K. B. P
24/11/22

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