**VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST - 625234**

| **DEPARTMENT OF COMPUTER SCIENCE** | | | |
|---|---|---|---|
| **Course Code:** 10SB31 | **Programme:** | **B.Sc.,** | **CIA:** II Test |
| **Date:** 30.08.2019 | **Major:** | **COMP.SCIENCE** | **Semester:** III |
| **Time:** 1Hr | **Year:** | **II** | **Maximum:** 25 Marks |
| **Course Title:** | **OPERATING SYSTEM** | | |

## SECTION-A

**Answer all questions** **(5X1=5)**

1. Main memory is divided into separate _____ **CO2**

A) Memory regions B) Memory partitions C) Memory devices D)Both A&B

2. A_____ can be defined as a logical grouping of information. **CO2**

A) Segment B) Paged segment C) Demand Paged segment D) Both B&C

3. The process schduller is also called the _____ **CO3**

A) Schduller B)Dispatcher C)Processor D)None

4. Job scheduling is also called _____ **CO3**

A) Coupled Processing B) Multiprogramming

C) Coupled Multiprocessing D) Multiprocessing

5. Page interrupt condition is also called _____ **CO3**

A) Page interrupt B)Page defaults C)Exception D)None

## SECTION-B

**Answer any TWO questions** **(2X2=04)**

6. Define Multi Programming. **CO2**

7. Define Segment memory management? **CO2**

8. What a job scheduling? **CO3**

9. Write notes an multiprocessor system. **CO3**

## SECTION-C

**Answer any ONE question** **(1X6=6)**

10.Write the short notes an single contiguous allocation. **CO2**

11. Explain about the state model. **CO3**

## SECTION-D

**Answer any ONE question** **(1X10=10)**

12. Discuss about the paged memory management. **CO2**

13. Explain about the process scheduling. **CO3**

**VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST - 625234**

| **DEPARTMENT OF COMPUTER SCIENCE** | | | |
|---|---|---|---|
| **Course Code:** 10SB51 | **Programme:** | **B.Sc.,** | **CIA:** II Test |
| **Date:** 30.08.2019 | **Major:** | **COMP.SCIENCE** | **Semester:** V |
| **Time:** 1Hr | **Year:** | **III** | **Maximum:** 50 Marks |
| **Course Title:** | **COMPETITIVE EXAM FOR IT** | | |

**Answer the all questions**

1) Arrange the words given below in a meaningful sequence.

I.Income II.Status III.Education
IV.Well being V.Job

A)3,1,5,2,4 B)1,3,2,5,4
C)1,2,5,3,4 D)3,5,1,2,4

2) Arrange the words given below in a meaningful sequence.

I.Leaves II.Branch III.Flower
IV.Tree V.Fruit

A)4,3,1,2,5 B)4,2,5,1,3 C)4,3,2,1,5 D)4,2,1,3,5

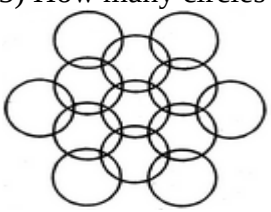
3) Forecast::Future::Regret::?

A) Present B)A tone C)Sins D)Past

4) Docter::Patient::Politician::?

A)Voter B)Chair C)Money D)Public

5) How many circles are there in the adjoining figure?



A)18 B)24 C)20 D)14

6What protocols used between E-Mail servers_____

A)FTP B)SMTP
C)SNMP D)P0P3

7) Which word does not belongs to others

A) Bud B) Tulip C)Daisy
D) Rose

8) The hexadecimal number C3 convert to binary number is

A) 1111 B) 110011 C) 111100 D)11000011

9) Find odd man out

A) Oracle B) BASIC C) PASCAL D) COBOL

10) Find odd man out

A)April B)June C)September D)May

11) HEART= @8531 ; FEAST= #8541 ;FARTHEST=?

A) #541@831 B) #831@541
C) @541#831 D)#531@841

12)Where is RAM located?

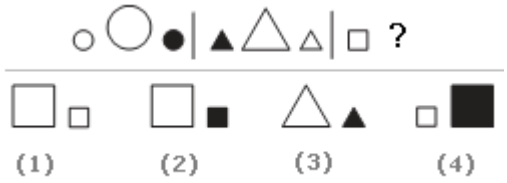
A)Expansion Board B)External Drive
C)MotherBorad D)None

13) Find the missing LETTER for the given box?

| B | C | E | G | K | M |
|---|---|---|---|---|---|
| Y | X | V | T | P | ? |

A)L B)S C)N D)O

14.




A) 1 B) 2 C) 3 D) 4

15) If a computer has more than one processor then it is known as ?

a)Uniprocessor b)Multiprogramming
c)Multithreaded d) Multiprocessor

16) $\frac{(489+375)^2 - (489-375)^2}{(489*375)}$ =?

A) 4 B) 5 C) 40 D) 52

17) $\frac{(963+476)^2 + (963-476)^2}{(489*375)}$ =?

A) 4 B) 5 C) 6 D) 2

18) 7:12 is equivalent to

A) 28:40 B) 42:71 C) 42:72 D) 72:42

19) A ratio equivalent to 3:7 is

A) 9:21 B) 6:10 C)3:9 D)18:49

20) In a class there are 20 boys & 15 girls. The ratio of boys to girls are

A)3:4 B)4:5 C)3:9 D)18:49

21)The L.C.M of number is 2,4,32,8 find the value

A)64 B)65 C)60 D) 63

22) The L.C.M of two number is 2,13=?

A)15 B)25 C)26 D)28

23) The L.C.M of two number is 12,30=?

A) 58 B) 60 C) 62 D)64

24) The L.C.M of two number is 30,42=?

A) 630 B) 635 C) 220 D)210

25) $2\sqrt{1225}$=?

A)35 B)30 C)45 D)25

26) $2\sqrt{9025}$=?

A)85 B)75 C)95 D)90

27) $3\sqrt{125}$=?

A) 10 B)5 C)25 D)15

28) Arrange the words given below in a meaningful sequence

I.Police II.Punishment III.Crime
IV.Judge V.Judgement

A) 3,1,2,4,5 B) 1,2,3,4,5
C)5,4,3,2,1 D)3,1,4,5,2

29) Find the odd letter from the given alternatives.
A)Driving B)Diving
C) Swimming D) None of the above
30) If T=40; DOG=52; BALL=?
A) 29 B)32 C)30 D)35
31)We can draw a pie-graph in a_____
A)Excel B)Power point C)Access D)Word
32) A teacher can develop a question bank with the help of _____
A)Excel B)Power point C)Access D) Word
33)M-S word is an example of _____
A) System S/W B) Application S/W
C)OS D)Translating program
34) A byte is equal to _____
A) 32 Bits B)16 Bits C)8 Bits D)4 Bits
35)The VIRUS is a _____
A)S/W Program B)H/W
C)Device D) None of the above
36)Data in a computer can be represented as _____
A) Hexa Decimal B)Decimal
C)Binary D)All of these
37)The Hexadecimal number system cinsists of the _____
A)0-15 B)0-9,A-E C)0-7,A-F D)0-9,A-F
38)A man walks 5km East, turns left & walks another 5 km . Again he takes a left turn & walks 5km. Which direction on is he facing now?
A)West B)East C)South D)North
39)Home D is 10 km, towards the North of House A. Home C is 15km towards the west of Home D. Home B is 15km towards the west of Home A. How far and in which direction is Home B from Home C ?
A)East B)West C)North D)South
40)Can you Solve **7 + 7 ÷ 7 + 7 x 7 + 7 - 7 ÷ 7 + 7 x 7** =?
A)112 B) 56 C)0 D) 98
41)Ram is the brother of Arun. Sana is the sister of Tina. Arun is the son of Sana. How is Ram related to Sana?
A)Brother B)Uncle
C)Son D)Father
42)Pointing towards a day, Veena said, "He is the son of the only son of my Grandfather." How is that boy related to Veena?
A)Uncle B)Brother
C)Cousin D) None
43)If 'blue' means 'green', 'green' means 'white', 'white' means 'yellow', 'yellow' means 'black', 'black' means 'red' and 'red' means 'brown', that what is colour of 'milk'?
A)Yellow B)Green
C)Brown D)Black
44) If 'blue' means 'green', 'green' means 'white', 'white' means 'yellow', 'yellow' means 'black', 'black' means 'red' and 'red' means 'brown', that what is colour of 'Blood'?
A)Yellow B) Green
C)Brown D)Black
45)If C=3 and POLISH=79, then POINTER=?
A)98 B)97 C)96 D)95
46) In a certain code Languages 461 means 'where are you', 169 means 'you are good' and 8652 means 'flowers are not bad'. How will 'where not are good flowers' be written in that code Language.
A)68954 B)46598
C)45698 D)Data inadequate
47) 77% of 64=?
A)47.28 B) 49.28
C) 48.29 D)49.27
48)28% of 450+45%280
A)256 B)252
C)305 D)352
49)The ratio 5:4 Expressed as a _____ percentage equals.
A)125% B)126%
C)175% D)176%
50) 5% of 5% of Rs. 100 is
A) Rs. 25 B) Rs. 0.50
C) Rs. 10 D) Rs. 0.25

**VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST - 625234**

| **DEPARTMENT OF COMPUTER SCIENCE** | | | |
|---|---|---|---|
| **Course Code:** 10AT11 | **Programme:** | **B.Sc.,** | **CIA:** II Test |
| **Date:** 07.09.2019 | **Major:** | **COMP.SCIENCE** | **Semester:** I |
| **Time:** 2Hrs | **Year:** | **I** | **Maximum:** 50 Marks |
| **Course Title:** | **DISCRETE MATHEMATICS** | | |

**SECTION-A**

**Answer all questions** **(10X1=10)**

1. A compound proposition that is neither a tautology nor a contradiction is called a _____ **CO3**
   a) Contingency b) Equivalence c) Condition d) Inference.
2. A compound proposition that is always _____ is called a tautology. **CO3**
   a) True b) False c) Either true or false d) neither true nor false
3. A compound proposition that is always _____ is called a contradiction. **CO3**
   a) True b) False c) Either true or false d) neither true nor false.
4. If P then Q is called _____ statement **CO3**
   A. Conjunction B. Disjunction C. Conditional D. bi conditional
5. A sum of the variables and their negations in a formula is called _____. **CO3**
   A. elementary sum B. elementary product C. CNF D. DNF
6. A product of the variables and their negations in a formula is called _____. **CO3**
   A. elementary product B. elementary sum C. CNF D. DNF
7. Min-terms of two statements are formed by introducing the connective _____. **CO3**
   A. Conjunction B. Disjunction C. Conditional D. negation
8. If A and B are square matrices such that AB= I and BA= I, then B is **CO2**
   (A) Unit matrix (B) Null matrix (C) Multiplicative inverse matrix (D) –A
9. Which one of the following statement is not true? **CO2**
   (A) A scalar matrix is a square matrix (B) A diagonal matrix is a square matrix
   (c) A scalar matrix is a diagonal matrix (D) A diagonal matrix is a scalar matrix
10. Matrix A=[aij]mxn is a square matrix if **CO2**
(A) m<n (B) m>n (C) m=1 (D) m=n

**SECTION-B**

**Answer any FIVE questions** **(5X2=10)**

11) Define Proposition **CO3**
12) Write the types of Matrix **CO2**
13) Define Tautology **CO3**
14) Write the truth table i) AND ii) Biconditional C**O3**
15 Define Permutation **CO1**
16) Draw a logic network of a.b + ( ~a + b) **CO3**
17) Let a= Raja is good boy b= Raja is handsome. Write the Disjunction format. **CO1**

**SECTION-C**

**Answer any THREE questions** **(3X6=18)**

18) Verify if the proposition (P vQ) VRVS is tautology or not. **CO3**
19) Prove that ~ $(P \wedge Q) \rightarrow [\sim PV (\sim PVQ)] \Leftrightarrow \sim PVQ$ **CO3**
20) If A = $\begin{bmatrix} 2 & -3 & 1 \\ 3 & 1 & 3 \\ -5 & 2 & -4 \end{bmatrix}$ Show that A(A-I)(A+2I) = 0. **CO2**

21) Find the rank of matrix $\begin{bmatrix} 1 & 2 & 3 & -1 \\ 3 & 6 & 9 & -3 \\ 2 & 4 & 6 & -2 \end{bmatrix}$ **CO2**

22) In how many ways can the letters of the word 'LEADER' be arranged? **CO1**

**SECTION-D**

**Answer any one** **(1X12=12)**

23) Find the Eigen values and Eigen vectors of A = $\begin{bmatrix} 3 & -1 & 1 \\ -1 & 5 & -1 \\ 1 & -1 & 3 \end{bmatrix}$ **CO2**

24) Construct the truth table for $(\sim P \wedge (\sim Q \wedge R)) V ((Q \wedge R) v (P \wedge R))$ **CO3**

**VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST - 625234**

| **DEPARTMENT OF COMPUTER SCIENCE** | | | |
|---|---|---|---|
| **Course Code:** 10AT31 | **Programme:** | **B.Sc.,** | **CIA:** II Test |
| **Date:** 07.09.2019 | **Major:** | **COMP.SCIENCE** | **Semester:** III |
| **Time:** 2Hrs | **Year:** | **II** | **Maximum:** 50 Marks |
| **Course Title:** | **OPERATIONS RESEARCH** | | |

## SECTION-A

**Answer all the questions** **(10X1=10)**

1) Which method is used to obtain optimum solution for TP? **CO3**

a) VAM b) MODI c) hungarian d) none

2) If m+n-1= number of occupied cells, then the solution is **CO3**

a) Feasible b) unfeasible c) un balanced d) none

3) The dummy source or destination in a transportation problem is added to **CO3**

A. to make balanced one B. prevent solution from becoming degenerate

C. ensure that total cost does not exceed a limit D. all of the above

4) The transportation problem is special case of **CO3**

a) Assignment b) LPP c) graphical d) none

5) north – west corner refers to _____. **CO3**

a) Top left corner b) Top right corner c) Both of them d) none

6) the penalty in VAM represents difference between _____ costs of respective Row / column.**CO3**

a. Two largest b. Smallest two c. Largest and smallest d. None of them

7) VAM stands for: **CO3**

a) Value added method. b) Value assessment method.

c) Vogel's approximation method d) Vogel adam method.

8) In least cost method the allocation is done by selecting _____. **CO3**

a) Upper left corner. b) upper right corner.

c) Middle cell in the transportation table d) cell with the lowest cost.

9) In transportation problem is said to be balanced if _____. **CO3**

a) Total supply is not equal to total demand b) total supply is greater than total demand

c) Total supply is lesser than total demand d) total supply is equal to total demand .

10) MODI stands for: **CO3**

a. modern distribution b. mendel's distribution method

c. modified distribution method d. Model index method.

## SECTION-B

**Answer any FIVE questions** **(5X2=10)**

11. Define Transportation Problem **CO3**

12. Define unbalanced Transportation Problem **CO3**

13. Define Maximization Transportation Problem and how solve it **CO3**

14. What are the methods to find IBFS in Transportation Problem? **CO3**

15. Give the mathematical formulation of Transportation Problem **CO3**

16. Define optimal solution **CO3**

17. Define feasible test in Transportation Problem **CO3**

## SECTION-C

**Answer any THREE questions** **(3X6=18)**

18. Explain VAM procedure **CO3**

19. Explain LCM procedure **CO3**

20. Find the starting solution of the following transportation problem using NWCR **CO3**

| **DESTINATION** | | | | | | | |
|---|---|---|---|---|---|---|---|
| **SOURCE** | | **A** | **B** | **C** | **D** | **E** | **AVAILABLE** |
| | **P** | 4 | 1 | 2 | 6 | 9 | 100 |
| | **Q** | 6 | 4 | 3 | 5 | 7 | 120 |
| | **R** | 5 | 2 | 6 | 4 | 8 | 120 |
| **DEMAND** | | 40 | 50 | 70 | 90 | 90 | |

21. Explain NWCR procedure **CO3**

22. Find the initial basic feasible solution for following transportation problem using VAM method **CO3**

| | **Distribution Centres** | | | | | |
|---|---|---|---|---|---|---|
| | | **D1** | **D2** | **D3** | **D4** | **Availability** |
| | **S1** | 11 | 13 | 17 | 14 | 250 |
| **Origin** | **S2** | 16 | 18 | 14 | 10 | 300 |
| | **S3** | 21 | 24 | 13 | 10 | 400 |
| | **Requirements** | 200 | 225 | 275 | 250 | |

## SECTION-D

**Answer any ONE** **(1X12=12)**

23. Explain MODI algorithm method **CO3**

24. Find IBFS using VAM , LCM and NWCR for the following TP **CO3**

| | **destination** | | | | |
|---|---|---|---|---|---|
| **source** | **a** | **b** | **c** | **d** | **supply** |
| **1** | 11 | 20 | 7 | 8 | 50 |
| **2** | 21 | 16 | 20 | 12 | 40 |
| **3** | 8 | 12 | 18 | 9 | 70 |
| **Demand** | 30 | 25 | 35 | 40 | |

**VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST - 625234**

| **DEPARTMENT OF COMPUTER SCIENCE** | | | |
|---|---|---|---|
| **Course Code:** 10CT11 | **Programme:** | **B.Sc.,** | **CIA:** II Test |
| **Date:** 03.09.2019 | **Major:** | **COMP.SCIENCE** | **Semester:** I |
| **Time:** 2Hrs | **Year:** | **I** | **Maximum:** 50 Marks |
| **Course Title:** | **PROGRAMMING IN C** | | |

## SECTION-A

**Answer all questions** **(10X1=10)**

1. The & operator displays_____. **CO2**
   A. address of the variable. B. value of the variable. C. result of the variable D. both (a) & (b).
2. A character array always ends with_____. **CO2**
   A. null (\0) character. B. question mark (?). C. full stop(.). D. exclamation mark(!).
3. Which header file is essential for using strcmp() function? **CO2**
   A. <string.h> B. <strings.h> C.< text.h> D. <strcmp.h >
4. Recursion is a process in which a function calls _____. **CO3**
   A. itself. B. another function. C. main( ) function. D. sub program.
5. By default the function returns_____. **CO3**
   A. integer value. B. float value. C. char value. D. double.
6. The function strcpy(s1,s2) in string.h _____. **CO2**
   A. copies s1 to s2. B. copies s2 to s1. C. appends s1 to end of s2. D. appends s2 to end of s1.
7. Which is valid string function? **CO2**
   A. strpbrk() B. strlen() C. strxfrm() D. strcut()
8. An array is a collection of_____. **CO2**
   A. different data types. B. same data types. C. different data types D. only one data type.
9 The function that returns multiple value with the help of_____ operators **CO3**
   A. & and *. B. -> and ? C. * and - D. ? and :
10. C language is available for which of the following Operating Systems? **CO3**
   A.DOS B. Windows C.Unix D. All of these

## SECTION-B

**Answer any FIVE questions** **(5X2=10)**

11. Define Array **CO2**
12. Define string **CO2**
13. Write syntax of Array declaration **CO2**
14. Define function **CO3**
15. What are the different types of data types available in C? **CO3**
16. What is the different between gets () and scanf()? **CO2**
17. What is the output of the programs given below? **CO3**

```
main()
{
float a;
int x=6, y=4;
a=x/y;
printf("Value of a=%f", a);
}
```

## SECTION-C

**Answer any THREE questions** **(3X6=18)**

18. Explain one dimensional Array with example **CO2**
19. Explain puts() and gets() function with example **CO2**
20. Explain string functions in C with example **CO2**
21. Discuss why we need user defined functions **CO3**
22. Explain one dimensional array with example **CO2**

## SECTION-D

**Answer any two** **(1X12=12)**

23. Discuss about what are the elements of user-defined functions **CO3**
24. Explain two dimensional arrays with example **CO2**

**VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST - 625234**

| **DEPARTMENT OF COMPUTER SCIENCE** | | | |
|---|---|---|---|
| **Course Code:** 10CT12 | **Programme:** | **B.Sc.,** | **CIA:** II Test |
| **Date:** 06.09.2019 | **Major:** | **COMP.SCIENCE** | **Semester:** I |
| **Time:** 2Hrs | **Year:** | **I** | **Maximum:** 50 Marks |
| **Course Title:** | **DIGITAL PRICNCIPLES AND COMPUTER ORGANIZATION** | | |

## SECTION-A

**Answer all questions** **(10X1=10)**

1. In 'D' register 'D' stands for_____ CO2
   A)Delay B)Decrement C)Document D)Data
2. A register defined as_____ CO2
   A) The group of latches for storing one bit of information
   B) The group of latches for storing n-bit of information
   C) The group of flip-flops suitable for storing one bit of information
   D) The group of flip-flops suitable for storing binary information
3. Which of the following is the Universal Flip-flop? CO2
   A) S-R flip-flop B) J-K flip-flop C) Master slave flip-flop D) D Flip-flop
4. The 4 to 16 decoder is also called a_____ CO2
   A)4 of 16 decoder B)3 of 16 decoder C)2 of 15 decoder D)1 of 15 decoder
5. In D Flip-Flop , 'D' stands_____ CO2
   A) Distant B) Desired C)Data D) Delay
6. A set of instruction that performs task is called the _____ CO3
   A) Program B)Storage C) Data D)Software
7. The function of the _____unit is to stored program and data CO3
   A) Main memory B)Core memory C)Memory D)all of the above
8. _____is a processor that manipulates and performs arithmetic operations CO3
   A) ALU B)CPU C)Motherboard D)Control unit
9. BCD code _____bit code CO3
   A) 1 B)8 C)12 D)4
10. The CPU registers is called _____ CO3
    A) Stack B)Queue C)Program Counter D)Stack pointer

## SECTION-B

**Answer any FIVE questions** **(5X2=10)**

11. Define **Encoders**. CO2
12. Define **Flip-Flops** & its various types. CO2
13. Define **Shift register** & its various types. CO2
14. List out the **basic functional units** of computer. CO3
15. Define **ALU** and **CPU** CO3
16. Differents between **Software** and **Hardware**. CO3
17. Expands for the (i) **LIFO** (ii)**FIFO** CO3

## SECTION-C

**Answer any THREE questions** **(3X6=18)**

18. Explain about the **Decoders & its types** with neat circuits. CO2
19. Explain about **Serial In-Serial Out register** with neat sketch. CO2
20. Write a short notes an **functional units**. CO3
21. Explain about the **BUS structure** with neat Diagram. CO3
22. Write short notes an **Stack and Queue** with neat structure. CO3

## SECTION-D

**Answer any ONE question.** **(1X12=12)**

23. (i) Explain **JK Flip-Flop**. (ii) Explain **RS Flip-Flop**. iii)Explain **D Flip-Flop** CO2
24. Discuss about the **Basic operational concepts**. CO3

**VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST - 625234**

| **DEPARTMENT OF COMPUTER SCIENCE** | | | |
|---|---|---|---|
| **Course Code:** 10CT31 | **Programme:** | **B.Sc.,** | **CIA:** II Test |
| **Date:** 03.09.2019 | **Major:** | **COMP.SCIENCE** | **Semester:** III |
| **Time:** 2Hrs | **Year:** | **II** | **Maximum:** 50 Marks |
| **Course Title:** | **COMPUTER ORGANISATION WITH PARALLEL PROCESSING** | | |

## SECTION-A

**Answer all questions** **(10X1=10)**

1. A _____ is a digital circuit that performs the inverse operation of a decoder. CO2
   A. multiplexer. B. adder. C. subtractor. D. encoder.
2. A decimal arithmetic unit is a _____ function that performs decimal micro operations. CO2
   A. analog. B. logical. C. digital. D. Boolean.
3. The assembler stores the object code in _____ CO2
   A. Main memory B. Cache C. RAM D. Magnetic disk
4. The means of entering information into computer is through a _____. CO3
   A. mouse. B. keyboard. C. printer. D. monitor.
5. The subsystem of a computer provides communication between central system and outside environment.CO3
   A. input/output. B. input. C. output. D. exit.
6. Many OS enable the CPU to proceeds a number of independent programs concurrently called_____ .CO3
   A. multitasking. B. multiprogramming. C. multi-processing. D. multiple functions.
7. RAM stands for _____. CO3
   A. random access memory. B. random memory.
   C. read only memory. D. read access memory.
8. A tract in magnetic disk in a given sector near the circumstance is _____ than near the center. CO3
   A. smaller. B. longer. C. thinner. D. bigger.
9. The transformation of date from main memory to cache memory is called _____ process. CO3
   A. execution. B. mapping. C. unmapping. D. loading.
10. The basic component of arithmetic circuit is_____. CO3
    A. parallel subtractor. B. parallel adder. C. half adder. D. full adder.

## SECTION-B

**Answer any FIVE questions** **(5X2=10)**

11. What is PC? CO2
12. Define Vector process? CO2
13. Write about the pipelining with types? CO2
14. Differance between RAMand ROM? CO2
15. Expand:(i)DMA (ii) RISC CO3
16. Define Memory? CO3
17. Define virtual memory? CO3

## SECTION-C

**Answer any THREE questions** **(3X6=18)**

18. Discuss about the Program control? CO2
19. Explain the Array processor? CO2
20. Discuss about the I/O Interface? CO3
21. Briefly explain I/O Processor. CO3
22. Explain the Auxiliary memory? CO3

## SECTION-D

**Answer any ONE** **(1X12=12)**

23. Discuss the Data manipulation instruction? CO2
24. Explain the DMA? CO3

**VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST - 625234**

| **DEPARTMENT OF COMPUTER SCIENCE** | | | |
|---|---|---|---|
| **Course Code:** 10CT32 | **Programme:** | **B.Sc.,** | **CIA:** II Test |
| **Date:** 06.07.2019 | **Major:** | **COMP.SCIENCE** | **Semester:** III |
| **Time:** 2Hrs | **Year:** | **II** | **Maximum:** 50 Marks |
| **Course Title:** | **COMPUTER GRAPHICS** | | |

## SECTION – A

**ANSWER THE FOLLOWING**: **( 10 x 1 = 10 )**

1. The cartesian slope -intercept equation for a straight line is ____
   a) y = m.x + b b) y = b.x + m c) y = x.x + m d) y = b + m.m **CO2**
2. On a raster system, lines are plotted with ____
   a) Lines b) Dots c) Pixels d) none of these **CO2**
3. Expansion of DDA algorithm is ____ **CO2**
   a) Digital Difference Analyzer b) Direct Differntial Analyzer
   c) Digital Differential Analyzer d)Data Differential Analyzer
4. ____ algorithm is a faster method for calculating pixel positions
   a) Bresenham's line b) Parallel Line c) Midpoint d) DDA **CO2**
5. _____ is an accurate and efficient raster line generating algorithm
   a) Bresenham's line b) Parallel Line c) Midpoint d) DDA **CO2**
6. In Bresenham's line algorithm, if the distances d1< d2 then the decision parameter $P_k$ is _____ **CO2**
   a) Positive b) Equal c) Negative d) a or c
7. _____ is defined as a set of points that are all at a given distance r from a center position (x, y) **CO2**
   a) Rectangle b) Curve c) Circle d) Spline
8. Continous curves that are formed with polynomial pieces are called _____
   a) Circle b) Splines c) Polygon d) S curves **CO2**
9. ____ is used to adjust the shape of the line ends to give a better appearance of the line
   a) Pixmap b) Line tip c) Line Caps d) Arrow **CO2**
10. _____ function loads a preset color value into the frame buffer at the specified (x,y) pixel position
    a) setLinePath b) setPixel c) setTextAlignment d) lineTo **CO2**

## SECTION – B

**ANSWER ANY FIVE OF THE FOLLOWING**: **( 5 x 2 = 10 )**

11. Expand PHIGS? **CO2**
12. Give any two advantages of DDA Line algorithm? **CO2**
13. List the basic attributes of a straight line? **CO2**
14. Given the set of coefficients, bring outthe equation for generating a hyperbola? **CO2**
15. List the parametersfor the setLinetype function? **CO2**
16. Define Line Caps? **CO2**
17. Give the uses of Area Fill attributes? **CO2**

## SECTION – C

**ANSWER ANY THREE OF THE FOLLOWING:** **( 3 x 6 = 18 )**

18. Brief a note on general coordinate representations in graphics packages **CO2**
19. Summarize a note on output primitives and graphics functions? **CO2**
20. Critically analyze the working of Line Drawing algorithms? **CO2**
21. Discuss about the Line attributes? **CO2**
22. Brief a note on Area fill attributes? **CO2**

## SECTION – D

**ANSWER ANY ONE OF THE FOLLOWING:** **( 1 x 12 = 12 )**

23. Compare and criticize the working of DDA algorithm? **CO2**
24. Explain the working of Bresenham's Algorithm with suitable illustration **CO2**

**VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST - 625234**

| **DEPARTMENT OF COMPUTER SCIENCE** | | | |
|---|---|---|---|
| **Course Code:** 10CT51 | **Programme:** | **B.Sc.,** | **CIA:** II Test |
| **Date:** 04.09.2019 | **Major:** | **COMP.SCIENCE** | **Semester:** V |
| **Time:** 2Hrs | **Year:** | **III** | **Maximum:** 50 Marks |
| **Course Title:** | **COMPUTER NETWORKS** | | |

## SECTION – A

**ANSWER ALL THE QUESTIONS**: **( 10 x 1 = 10 )**

1. Information is transmitted on copper wires by varying _____
   a) Electromagnetic waves b) Voltage c) Frequency d) Speed
2. The range of frequencies transmitted without being strongly attenuated is called _____
   a) Baud rate b) Bandwidth c) Data transfer rate d) Attenuation
3. A Standard Ultrium tapes can hold _____gigabytes of data
   a) 200 b) 50 c) 100 d)10
4. Expand UTP.
   a) Unshielded Twisted Pair b) Universal Twisted Pair c) Universal Terabyte pair d) Unified Twisted pair
5. _____ cables are used for analog transmission and cable television network
   a) 30 ohms b) 10 ohms c) 75 ohms d) 95 ohms
6. _____fibre optic cable can transmit data at 50 Gbps for 100 kms without amplification
   a) Multimode b) Single mode c) Two way d) Broad band
7. ____ is the spreading of light pulses in length while propagation through fiber optic cable
   a) Chromatic Dispersion b) LASER c) Grating d) SONAR
8. Expand PSTN.
   a) Private Switched Telephone Network b) Public Switched Telephone Network
   c) Packet switched Telephone Network d) Portable switching telephone network
9. Local loop connects each subscriber's telephone with _____
   a) Toll Office b) End Office
   c) Intermediate switching Office d) none of these
10. _____ is the loss of energy as the signal propagates outwards, which is expressed in DB per kilometer.
    a) Bandwidth b) Data transfer rate c) Attenuation d) Distortion

## SECTION – B

**ANSWER ANY FIVE OF THE FOLLOWING**: **( 5 x 2 = 10)**

11. Give any two types twisted pair wires?
12. Give any two types of fiber optic cables?
13. List the types of Coaxial Cables?
14. Define solitons?
15. Expand FHSS and DSSS?
16. Define Multipath Fading?
17. Give the function of Switching Office?

## SECTION – C

**ANSWER ANY THREE OF THE FOLLOWING** **( 3 x 6 = 18)**

18. Briefa note on the characteristics and types of coaxial cables?
19. Distinguish between coaxial cables and fiber optic cables?
20. Write a summary on the Electromagnetic Spectrum?
21. Identify and write a note on problems in Transmission Lines?
22. Explain the working of a modem?

## SECTION – D

**ANSWER ANY ONE OF THE FOLLOWING** **( 1 x 12 = 12)**

23. Enumerate on types of transmission media, their characteristics and types in each category?
24. Analyze characteristics of Public Switched Telephone Network?

**VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST - 625234**

| **DEPARTMENT OF COMPUTER SCIENCE** | | | |
|---|---|---|---|
| **Course Code:** 10CT52 | **Programme:** | **B.Sc.,** | **CIA:** II Test |
| **Date:** 05.09.2019 | **Major:** | **COMP.SCIENCE** | **Semester:** V |
| **Time:** 2Hrs | **Year:** | **III** | **Maximum:** 50 Marks |
| **Course Title:** | **JAVA PROGRAMMING** | | |

## SECTION-A

**Answer all questions** **(10X1=10)**

1. One interface can inherit another by use of the keyword _____.
   A. public. B. extends. C. method name. D. class name.
2. Which of these access specifiers can be used for an interface?
   A. public. B. protected. C. private. D. All of the mentioned.
3. _____ can be declared inside interface declarations.
   A. Variables. B. Classes. C. Methods. D. Keywords.
4. Which of these keywords is used to refer to member of base class from a sub class?
   A. upper. B. super. C. this. D. None of the mentioned.
5. Which of these keywords can be used to prevent Method overriding?
   A. static. B. constant. C. protected. D. final.
6. Which of these keywords must be used to inherit a class?
   A. super. B. this. C. extent. D. extends
7. Which class cannot be a subclass in java?
   A. abstract class B. parent class C. Final class D. None of above
8. The concept of derived classes is involved in _____.
   A. encapsulation. B. information hiding. C. polymorphism. D. inheritance.
9. Which of these keywords is used by a class to use an interface defined previously?
   A. import. B. imports. C. implements. D. implement.
10. A package is a collection of _____.
    A. keywords. B. classes and interfaces. C. editing tools. D. views.

## SECTION-B

**Answer any FIVE questions** **(5X2=10)**

11) Define Array
12) Define Interface.
13) Write the type of inheritance
14) Define Method
15) What is package
16) Write about access specifier
17) Write difference between Public and Protected

## SECTION-C

**Answer any THREE questions** **(3X6=18)**

18) Explain about Array with suitable example
19) Discuss about Inheritance and its type?
20) Distinguish between Class and Interface
21) Write a java program to find the area of circle using class and object
22) Write short notes on Package

## SECTION-D

**Answer any one** **(1X12=12)**

23) Briefly explain about interface concept with examples?
24) Explain about packages and write the running procedure with examples?

**VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST - 625234**

| **DEPARTMENT OF COMPUTER SCIENCE** | | | |
|---|---|---|---|
| **Course Code:** 10EP1A | **Programme:** | **B.Sc.,** | **CIA:** II Test |
| **Date:** 06.09.2019 | **Major:** | **COMP.SCIENCE** | **Semester:** V |
| **Time:** 2Hrs | **Year:** | **III** | **Maximum:** 50 Marks |
| **Course Title:** | **SOFTWARE ENGINEERING** | | |

## SECTION – A

**Answer ALL Questions:** **(1 X 1 = 10)**

1. A design should be _____.
   a. popular. b. simple. c. modular. d. complex.
2. _____ factor in design is assessed by human factors.
   a. Usability. b. Reliability. c. Performance. d. Supportability.
3. A _____ abstraction is a named collection of data that describes a data object.
   a. data. b. procedural. c. design. d. architecture.
4. _____ is achieved by developing modules with single minded function.
   a. Modularity. b. Information hiding.
   c. Functional independence. d. Refinement.
5. Representations of software architecture enable communication between_____.
   a. modules. b. stakeholders. c. partners. d. components.
6. The _____ translates data objects into data structures at component level.
   a. analysis. b. design. c. architecture. d. code.
7. Design phase is followed by _____.
   a. coding. b. debugging. c. testing. d. maintenance.
8. Prototyping model begins with_____.
   a. test prototype. b. coding. c. requirements gathering. d. none of the above.
9. The system which is developed within short time period of 60 to 90 days is_____ model.
   a. RAD. b. spiral. c. prototyping. d. incremental.
10. Tests that demonstrates each function is fully operational is _____ testing.
    a. white-box. b. black-box. c. integration. d. stress.

## SECTION – B

**Answer any FIVE Questions:** **(5*2=10)**

11. Define COCOMO.
12. What are the characteristics of SRS?
13. What is data flow diagram?
14. Explain the relational notation.
15. Expand: SRS, ESP
16. Write short notes on decision tables.
17. Define software maintenance.

## SECTION – C

**Answer Any THREE Questions:** **(3*6=18)**

18. Explain the Delphi Cost Estimation.
19. Discuss about the WBS?
20. Explain the Staffing level Estimation.
21. Explain the PSL/REVS
22. Discuss about the Formats of SRS.

## SECTION – D

**Answer Any ONE Questions:** **(1 X 12 = 12)**

23. Explain about Software Cost Factors.
24. Briefly explain Petri nets