VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST
(Autonomous & Residential)
[Affiliated to Madurai Kamaraj University]
B.Sc. Comp. Sci. Degree (Semester) Examinations, November 2015
Part – III : Allied Subject : First Semester : Paper – I

DISCRETE MATHEMATICS
Under CBCS – Credit 4

Time: **3** Hours Max. Marks: **75**

SECTION – A

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

1. What is set?
2. *Let* $U = \{1,2,3,45\}$ *then* $A = \{1,2,3\}$ then what is A' (Complement of A)?
3. A square matrix which has zero elements every where except in the leading diagonal is called
   a) Diagonal matrix b) unit matrix
   c) identity matrix c) triangular matrix
4. What is symmetric matrix?
5. What is tautology?
6. $7q \to 7p$ is called _____.
   a) inverse b) contrapositive c) converse d) none of these
7. Define recursion.
8. Differentiate recursion and iteration.
9. What is graph?
10. How many tree traversals are available?
    a) 2 b) 3 c) 4 d) 5

SECTION – B

Answer ALL Questions : **(5 × 7 = 35)**

11. a) *If* $A=\{1,2,34,5,6,7\}$ *and* $B=\{5,6,7\}$ *then*

Find $A\cup B$, $A\cap B$, $A-B$, Complement of A *and* B.

(OR)

b) Explain types of relations with suitable example for each.

12. a) Find the inverse of the matrix $\begin{bmatrix} 2 & 4 & -1 \\ 0 & 3 & 7 \\ 8 & 1 & 5 \end{bmatrix}$.

(OR)

b) Find the rank of the matrix $\begin{bmatrix} 1 & 1 & 1 & 1 \\ 4 & 1 & 0 & 2 \\ 0 & 3 & 4 & 2 \end{bmatrix}$.

13. a) Construct the truth table for $(7P\vee Q)\wedge(7Q\vee P)$.

(OR)

b) Show that $Q\vee(P\wedge 7Q)\vee(7P\wedge 7Q)$ is a tatutology

14. a) Find the recurrence relation for Fibonacci series.

(OR)

b) Find the recurrence relation satisfying $y_n=(A+B_n)4^n$.

15. a) Define tree and binary search tree with examples.

(OR)

b) What is directed graph? Also give examples for incidence and adjacency matrices for a graph.

SECTION – C

Answer any THREE Questions : **(3 × 10 = 30)**

16. What is function? Discuss its types.

17. Verify the following systems is consistent

$$x+2y+z=11$$
$$4x+6y+5z=8$$
$$4x+4y+6z=38$$

18. Obtain PDNF for $(P\wedge Q)\vee(7P\wedge R)\vee(Q\vee R)$.

19. Using the generic function solve the difference equation

$y_{n+2}-y_{n+1}-6y_n=0$ *given* $y_1=1,\quad y_0=2.$

20. Explain various tree traversals with suitable example for each.

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Part – III : Allied Subject : Third Semester : Paper – I

OPERATIONS RESEARCH
Under CBCS – Credit 5

Time: **3** Hours Max. Marks: **75**

SECTION – A

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

1. Operation research approach is _____.
   a) multi disciplinary b) scientific
   c) intuitive d) collect essential data

2. Operation research approach is typically based on the use of _____.
   a) physical model b) mathematical model
   c) iconic model d) descriptive model

3. Graphical method of linear program in useful when the number of decision variable are _____.
   a) 1 b) 2 c) 3 d) 4

4. While solving a linear programming problem infeasibility may be removed by _____.
   a) adding another constraint b) adding another variable
   c) removing a constraint d) removing a variable

5. While solving an assignment problem, an activity is assigned to a resource through a square with zero opportunity cos because the objective is to _____.
   a) minimize total cost of assignment c) both
   b) reduce the cost of assignment of zero d) None

6. Simplex method is adopted which was developed by G.Dantzig in the year _____.
   a) 1947 b) 1937 c) 1927 d) 1957

7. The _____ method provides an algorithm which is based on the fundamental theorem of linear programming.

8. The name _____ problem originates from the classical problem.
9. A transportation problem is said to be balanced if _____.
10. Constraints appear as data when plotted on a _____.

SECTION – B

Answer ALL Questions : **(5 × 7 = 35)**

11. a) Explain the features of operations research.

(OR)

b) Discuss about the application of OR.

12. a) Explain Graphical solution of two variable problem.

(OR)

b) Express the following LP problem in the matrix form

$$Max \quad z = 2x_1 + 3x_2 + 4x_3$$

Subject to $x_1 + x_2 + x_3 \geq 5$

$x_1 + 2x_2 = 7$

$5x_1 - 2x_2 + 3x_3 \leq 9$ and

$x_1 \geq 0, \quad x_2 \geq 0, \quad x_3 \geq 0$

13. a) Explain simplex algorithm.

(OR)

b) Solve by simplex method.

$$Max \quad z = 3x_1 + 2x_2 + 5x_3$$

Subject to the Constraints $x_1 + 2x_2 + x_3 \leq 430$

$3x_1 + 2x_3 \leq 460$

$x_1 + 4x_2 \leq 420$ and

$x_1, \quad x_2, \quad x_3 \geq 0$

14. a) Explain – Mathematical Formulation of Assignment problem.

(OR)

b) Discuss about Hungarian Assignment Algorithm.

15. a) Explain – Matrix Form of Transporation Problem.

(OR)

b) Solve the transportation problem by using North – West.

Corner Rule	D_1	D_2	D_3	D_4	Supply
O_1	6	4	1	5	14
O_2	8	9	2	7	16
O_3	4	3	6	2	5
Demand	6	10	15	4	35

SECTION – C

Answer any THREE Questions : **(3 × 10 = 30)**

16. Write in detail about the Operations Research models.
17. Explain – The Standard Form of LPP.
18. Solve the problem by Big – M – method.

$$Max \quad z = x_1 + 2x_2 + 3x_3 - x_4$$

Subject to $x_1 + 2x_2 + 3x_3 = 15$

$2x_1 + x_2 + 5x_3 = 20$

$x_1 + 2x_2 + x_3 + x_4 = 10$ and

$x_1, \quad x_2 + x_3, \quad x_4 \geq 0$

19. A Car hire company has one car at each of five depots a, b, c, d and e. A customer requires a car in each town, namely A, B, C, D and E. Distance (in kms) between depots (origins) and towns (destinations) are given in the following distance matrix :

	a	b	c	d	e
A	160	130	175	190	200
B	135	120	130	160	175
C	140	110	155	170	185
D	50	50	80	80	110
E	55	35	70	80	105

How should cars be assigned to customers so as to minimize the distance travelled?

20. Find the initial basic feasible solution of the following transportation problem.

Ware house / Factory	W_1	W_2	W_3	W_4	Factory Capacity
F_1	19	30	50	10	7
F_2	70	30	40	60	9
F_3	40	8	70	20	18
Ware house Requirement	5	8	7	14	34

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Part – III : Core Subject : First Semester : Paper – I

PROGRAMMING IN C
Under CBCS – Credit 4

Time: **3** Hours Max. Marks: **75**

SECTION – A

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

1. _____ is a data name that may be used to store a data value.
   a) Data b) Pointer c) Variable d) Memory
2. The size of long double data type is _____.
   a) 16 bits b) 32 bits c) 80 bits d) 64 bits
3. Maximum of _____ elements can be stored in memory, for the array declaration float[4][4]
   a) 8 b) 16 c) 44 d) 100
4. Find the output of the following if the line of text typed in at the terminal is NEW YORK
   ```
   char address[15];
   scanf("%s",address);
   ```
   a) NEW b) NEW YORK c) NEWYORK d) NewYark
5. Recursion is a function which calls _____.
   a) main function b) itself
   c) void function d) recursive function
6. The function name follows the same rules of formation as _____ names in C.
   a) arrays b) variables c) constants d) strings
7. C supports a constructed data type _____ which is a method of packing data of different types.
   a) arrays b) variables c) constants d) structure
8. Each member of a structure _____.
   a) has its own location b) has multiple locations
   c) occupies no location d) use the same location

9. The process of calling a function by using pointers to pass the address of the variables is called as call by _____.
   a) value b) reference c) arguments d) parameters

10. To determine the address of a variable _____ operator is used.
   a) # b) $ c) & d) @

SECTION – B

Answer ALL Questions : **(5 × 7 = 35)**

11. a) Give the basic Structure of a C program with an example.

(OR)

b) Explain the rules and syntax to be followed for 'FOR' Statement with suitable examples.

12. a) Explain the following string handling functions with suitable examples. 1. String concatenation **(3 Marks)**
2. String comparison **(4 Marks)**

(OR)

b) Explain how 1D arrays can be declared and initialized? Give suitable examples.

13. a) Explain the following categories of functions.
   1. Functions with no arguments and no return values.
   2. Functions with arguments and return values.

(OR)

b) What is Nesting of Function? Discuss.

14. a) Distinguish Unions from Structures.

(OR)

b) Write a C program to create a Structure contains the details of an employee (emp. No, name, dob, address, salary) and to print the same.

15. a) Discuss how a new file can be created in C?

(OR)

b) Write a C program to find the biggest of three numbers using pointer.

SECTION – C

Answer any THREE Questions : **(3 × 10 = 30)**

16. What are the primary data types available in C? Discuss.

17. Write a C program to find the transpose of a given n x m matrix.

18. Write a C program to find the factorial of a given number using Recursion.

19. Explain how structures are declared, initialized and its members are accessed? Elaborate.

20. Write about declaring and initializing of pointer variables.

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B.Sc. Comp. Sci. Degree (Semester) Examinations, November 2015
Part – III : Core Subject : First Semester : Paper – II

DIGITAL ELECTRONICS
Under CBCS – Credit 4

Time: **3** Hours Max. Marks: **75**

SECTION – A

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

1. _____ gate with the only one input and a complemented and output.
   a) AND b) Inverter c) OR d) NOR
2. The value of A + $\bar{A}$ = _____
   a) 0 b) A$\bar{A}$ c) 1 d) None
3. A _____converts an active input signal into a coded output signal.
   a) Encoder b) Decoder
   c) BCD to decimal decoder d) Multiplexer
4. _____ is independent of clocking. The output can change without having a wait for clock pulse.
   a) synchronous b) flip flop
   c) Setup time d) Asynchronous
5. A group of Flip flop connected to provide either or both of this function is called _____.
   a) Parallel shifting b) shift register
   c) serial shifting d) All of the above
6. Write the truth table for OR and Ex-OR.
7. Define chip.
8. What is multiplexer?
9. What is JK- Flip flop?
10. Write the types of register.

SECTION – B

Answer ALL Questions : **(5 × 7 = 35)**

11. a) Explain Excess-3 code. **(OR)**
    b) Explain NOR Gates.
12. a) Explain pairs, quads, octets in K-map. **(OR)**
    b) Explain Don't care condition.
13. a) Explain De-multiplexer. **(OR)**
    b) Explain Binary addition and Subtraction with example.
14. a) Explain JK -Flip Flop. **(OR)**
    b) Explain 555 Timer Mono stable.
15. a) Explain ring counter. **(OR)**
    b) Explain Parallel in – parallel out register.

SECTION – C

Answer any THREE Questions : **(3 × 10 = 30)**

16. Explain Binary conversions with example.
17. Briefly explain about product-of-sums method.
18. Write about the following: i) Encoder ii) 2's Complement
19. What is Flip Flop? Explain RS Flip flop with diagram.
20. Explain serial in – serial out, Parallel in- serial out with waveforms and diagram.

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B.Sc. Comp. Sci. Degree (Semester) Examinations, November 2015
Part – III : Core Subject : Third Semester : Paper – I

COMPUTER ORGANIZATION
Under CBCS – Credit 5

Time: **3** Hours Max. Marks: **75**

SECTION – A

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

1. The interrupt cycle is a _____ implementation.
   a) software b) hardware c) register d) address
2. The memory address registers has _____.
   a) 18 bits b) 12 bits c) 16 bits d) 24 bits
3. _____ method just described restoring method.
   a) hardware b) comparison c) non-restoring d) None
4. _____ are used mostly for storing files of data.
   a) Magnetic disk b) Monitor c) Peripheral d) Magnetic Tape
5. The main memory is the _____unit in a computer system.
   a) Main b) Auxiliary c) Cache d) Associate
6. Define array processor.
7. Define pipeline.
8. Define algorithm.
9. What is full duplex?
10. Define multiprogramming.

SECTION – B

Answer ALL Questions : **(5 × 7 = 35)**

11. a) Explain Assembly language. **(OR)**
    b) Explain the functions of input/output control unit.
12. a) Explain general register organization. **(OR)**
    b) Explain program Interrupts.
13. a) Explain hardware algorithm. **(OR)**
    b) Explain BCD Adder.
14. a) Explain Input-Output Interface. **(OR)**
    b) Explain Input/output processor.
15. a) Explain Auxiliary memory. **(OR)**
    b) Explain cache memory.

SECTION – C

Answer any THREE Questions : **(3 × 10 = 30)**

16. Describe the assembler.
17. Explain stack organization.
18. Briefly explain addition, subtraction algorithm of floating point numbers.
19. Discuss about direct memory access.
20. Explain about virtual memory.

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B.Sc. Comp. Sci. Degree (Semester) Examinations, November 2015
Part – III : Core Subject : Third Semester : Paper – II

OBJECT ORIENTED PROGRAMMING WITH C++
Under CBCS – Credit 4

Time: **3** Hours Max. Marks: **75**

SECTION – A

Answer ALL Questions : (10 × 1 = 10)

1. _____ is the act of representing essential features without including the background details or explanation.
   a) Polymorphism b) Data Abstraction
   c) Encapsulation d) Hiding
2. _____ are the basic run-time entities in an object-oriented system.
   a) Object b) Members c) Function d) Variables
3. _____ function is function which is expanded when it is invoked.
   a) User Defined b) Recursion c) Online d) Inline
4. By using _____ a family of functions with one name but with different argument list can be designed.
   a) Encapsulation b) Inheritance
   c) Overloading d) Polymorphism
5. The _____ is invoked whenever an object of its associated class is created.
   a) class b) object c) destructor d) constructor
6. A _____ is used to destroy the objects that have been created by a constructor.
   a) class b) object c) destructor d) constructor
7. The mechanism of deriving a class from another derived class is _____ inheritance.
   a) multilevel b) multiple c) single d) base
8. A member declared as _____ is accessible by the member functions within its class and any class immediately derived from it.
   a) private b) public c) protected d) virtual
9. A _____ variable defines where to get the value of a specific data variables instead of defining actual data.
   a) user defined b) pointer c) array d) enumerated
10. A _____ pointer refers to an object that currently invokes a member function.
    a) this b) inline c) user defined d) array

SECTION – B

Answer ALL Questions : (5 × 7 = 35)

11. a) Explain about the basic data types in C++.
    (OR)
    b) What are the benefits of OOPs?
12. a) Discuss about the concept "Array of Objects".
    (OR)
    b) Write about the specialty of Inline function with an example.
13. a) Explain with an illustration about how copy constructor works?
    (OR)
    b) Write about the Constructors with default Arguments.
14. a) Explain how nesting of classes is possible in C++?
    (OR)
    b) Write a C++ program to illustrate Single Inheritance concept.
15. a) Discuss about malloc () and calloc() functions in C++.
    (OR)
    b) Explain the usage of pointer with functions.

SECTION – C

Answer any THREE Questions : (3 × 10 = 30)

16. Write about the various control structures in C++.
17. Write a C++ program to find the area of a cube, cylinder and rectangular box by using function overloading concept.
18. Write a C++ program to overload unary operator.
19. Explain the following 1. Multiple Inheritance
    2. Multilevel Inheritance
20. Write about unformatted and formatted I/O operations.

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B.Sc. Comp. Sci. Degree (Semester) Examinations, November 2015
Part – III : Core Subject : Third Semester : Paper – III

DATA STRUCTURE & ALGORITHM
Under CBCS – Credit 4

Time: **3** Hours Max. Marks: **75**

SECTION – A

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

1. A Stack is called as _____ Structure.
   a) LIFO b) FIFO c) Top d) none
2. A node in singly linked list consist of _____ data members.
   a) Type and Disk b) Info and Next
   c) Top and bottom d) Start and End
3. The number of arcs in a path is called the _____ of the path.
   a) height b) leaf c) new d) length
4. A graph is called _____ graph if each edge has an assigned number.
   a) long b) circular c) weighted d) normal
5. Selection sort makes _____ comparisons.
   a) O(n) b) $O(n^2)$ c) O(Log n) d) O(n/2)
6. Define POP in stack.
7. What is Singly linked list?
8. Define internal path length.
9. Define Multi graph.
10. What is a decision tree?

SECTION – B

Answer ALL Questions : **(5 × 7 = 35)**

11. a) Discuss about stack operations in detail.
    (OR)
    b) Explain how queue is implemented using array?
12. a) How to add a node in a singly linked list? Explain.
    (OR)
    b) Explain about circular linked list with example.
13. a) What is a binary search tree? Explain the deletion of a node in it.
    (OR)
    b) Discuss about expression trees.
14. a) Discuss about graph traversals.
    (OR)
    b) Discuss about cycle detection.
15. a) Explain about bubble sort.
    (OR)
    b) Explain about insertion sort.

SECTION – C

Answer any THREE Questions : **(3 × 10 = 30)**

16. Discuss about Priority queue and its operations in detail.
17. Explain about doubly linked list and its operations.
18. Explain about binary tree traversal.
19. Discuss about graph and its representations.
20. Explain about a) Shell sort b) Quick sort
    c) Merge sort d) Heap sort

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B.Sc. Comp. Sci. Degree (Semester) Examinations, November 2015
Part – III : Core Subject : Fifth Semester : Paper – I

COMPUTER NETWORKS
Under CBCS – Credit 4

Time: **3** Hours Max. Marks: **75**

SECTION – A

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

1. By _____ technology many companies provide catalogs of their goods and services online and take orders on-line.
   a) e-commerce b) e- business c) e-governance d) e-filling
2. Radio waves also are _____ meaning that they travel in all directions from the source.
   a) multi-directional b) unidirectional
   c) bi-directional d) omnidirectional
3. The data link layer takes the packets it gets from the network layer and encapsulates them into _____ for transmission.
   a) packets b) data c) frames d) information
4. The _____ is that part of the network layer software responsible for deciding which output line an incoming packet should be transmitted on.
   a) routing algorithm b) session routing
   c) packet algorithm d) online routing
5. The output of the encryption process, known as the _____.
   a) plaintext b) ciphertext c) key d) cryptology
6. Define Local area network.
7. List any two advantages of Fiber.
8. List out the specific functions that the Data link layer can carry out.
9. What are the goals of the network layer services?
10. What is cryptanalysis?

SECTION – B

Answer ALL Questions : **(5 × 7 = 35)**

11. a) Write about the uses of the Internet for home users. **(OR)**
    b) Write about the TCP/IP reference model.
12. a) Explain the process- Circuit Switching. **(OR)**
    b) Give the definition and discuss about Multiplexing.
13. a) Write about Finite State Machine Models. **(OR)**
    b) Write about Petri Net Models.
14. a) Discuss about the various formats of IP address. **(OR)**
    b) Explain the functions of Multicast Routing method.
15. a) Write about Electronic Mail and its applications. **(OR)**
    b) What is World Wide Web? Discuss.

SECTION – C

Answer any THREE Questions : **(3 × 10 = 30)**

16. Explain the functions of the OSI Reference Model.
17. What is Guided Transmission Media? Explain.
18. Explain in detail about Sliding Window Protocols.
19. Explain the following
    1. The Internet Transport Protocols: UDP
    2. Dijkstra's algorithm to compute the shortest path through a graph.
20. What are Digital Signatures? Discuss.

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B.Sc. Comp. Sci. Degree (Semester) Examinations, November 2015
Part – III : Core Subject : Fifth Semester : Paper – II

JAVA PROGRAMMING
Under CBCS – Credit 4

Time: **3** Hours Max. Marks: **75**

SECTION – A

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

1. Which is a valid keyword in java?
   a) interface b) string c) Float d) unsigned
2. The command javac is used to
   a) debug a java program b) compile a java program
   c) interpret a java program d) execute a java program
3. _____ represents an entity in the real world that can be distinctly identified.
   a) A class b) An object c) A method d) A data field
4. The keyword _____ is required to declare a class.
   a) public b) private c) class d) All of the above
5. Which of this keyword must be used to inherit a class?
   a) super b) this c) extent d) extends
6. Which of these access specifiers can be used to inherit a class?
   a) Public b) Protected c) private d) All of the mentioned
7. Which one of the following is not a valid state of a thread?
   a) running b) parsing c) ready d) blocked
8. If an exception is generated in try block, then it is caught in _____ block.
   a) finally b) throw c) throws d) catch
9. Which of these classes contains the methods used to write in a file?
   a) FileStream b) FileInputStream
   c) BUfferedOutputStream d) FileBufferStream
10. Which of these functions is called to display the output of an applet?
    a) display() b) print() c) displayApplet() d) PrintApplet()

SECTION – B

Answer ALL Questions : **(5 × 7 = 35)**

11. a) Write briefly about primitive data types of java.
    (OR)
    b) Explain about arithmetic operators in detail.
12. a) Discuss about constructors in java.
    (OR)
    b) Explain method overloading in java.
13. a) Write about various types of inheritance supported by java.
    (OR)
    b) Discuss about packages in java.
14. a) Explain about life cycle of a thread.
    (OR)
    b) Write briefly about exception handling in java.
15. a) Discuss about java I/O streams.
    (OR)
    b) Explain about socket programming in java.

SECTION – C

Answer any THREE Questions : **(3 × 10 = 30)**

16. Discuss in detail about loop control statements in Java.
17. Explain about nested classes.
18. Describe about interface and its implementation.
19. Discuss in detail about multithreading.
20. Explain about applet and its life cycle in detail.

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B.Sc. Comp. Sci. Degree (Semester) Examinations, November 2015
Part – III : Elective Subject : Fifth Semester : Paper – I

SOFTWARE ENGINEERING CONCEPTS
Under CBCS – Credit 4

Time: **3** Hours Max. Marks: **75**

SECTION – A

Answer ALL Questions : (10 × 1 = 10)

1. _____size can be used in trivial project.
   a) 5K b) 50K c) 500 lines d) 1M
2. System programs interact directly with the_____.
   a) Software b) hardware c) program d) system program
3. Specification for the user interface displays and reports are refinement of information contained _____.
   a) Software requirements b) software definition
   c) project plan d) software planning
4. Functional abstraction can be generalized to collections of _____.
   a) groups b) packages c) programs d) designing
5. _____is the development of standard policies and practices.
   a) Source code b) product evolution
   c) quality assurance d) software verification
6. What is reliability?
7. Write the goal of programmer ability.
8. What is the requirements document?
9. Write the types of coupling.
10. Define software maintenance.

SECTION – B

Answer ALL Questions : (5 × 7 = 35)

11. a) How to programmers spend the time? Explain.
    (OR)
    b) Explain project structure.
12. a) Explain product complexity in cost estimation.
    (OR)
    b) How to estimate the software cost? Explain.
13. a) Explain formal and informal data flow in software requirements.
    (OR)
    b) Explain the transition table.
14. a) Explain the structure of software design.
    (OR)
    b) Explain types of test plans in software design.
15. a) Explain managerial aspects of software maintenance.
    (OR)
    b) Explain unit testing.

SECTION – C

Answer any THREE Questions : (3 × 10 = 30)

16. Explain phased life cycle model and cost model.
17. Explain cost estimation techniques.
18. Briefly explain Petri nets.
19. Explain about design notations.
20. Explain system testing.

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B.A. / B.Sc. Degree (Semester) Examinations, November 2015
Part – IV : NME Subject : First Semester : Paper – I

INTRODUCTION TO INFORMATION TECHNOLOGY
Under CBCS – Credit 2

Time: **2** Hours Max. Marks: **75**

SECTION – A

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

1. Which software used for typing a letter
   a) MS Word b) MS Paint
   c) Microsoft photo viewer d) Mozilla Firefox
2. What is the expansion of RAM?
   a) Random access memory b) Read only memory
   c) Real memory d) none of the above
3. Equivalent value of 8-bit is called _____?
   a) Byte b) Megabyte c) Gigabytes d) none
4. 1024 bytes of memory is equivalent to _____?
   a) KB b) MB c) GB d) TB
5. What is the maximum storage of floppy disk?
   a) 1.44 MB b) 1GB c) 2GB d) 4GB
6. Which one is the example output devise?
   a) Printer b) Keyboard c) Mouse d) wire
7. Which one is example for optical storage
   a) CD/DVD b) Hard disk c) Floppy disk d) Pen drive
8. Which one of the following is Microsoft OS?
   a) Mac OS b) Unix c) Linux d) Windows 8
9. Web browser is used for access the website. (True / False)
10. URL stands for uniform resource locator. (True / False)

SECTION – B

Answer ALL Questions : **(4 × 10 = 40)**

11. a) Write short notes on IT in Home and at play.

(OR)

b) How is IT used in business and industries?

12. a) Give a brief explains about Keyboard.

(OR)

b) Explain the different types of computers.

13. a) Give a brief explains about Printers.

(OR)

b) Give a short description about i) Hard disk ii) Floppy disk

14. a) What is software? Explain with different types of software?

(OR)

b) What is World Wide Web (WWW)? Explain.

SECTION – C

Answer any TWO Questions : **(2 × 12½ = 25)**

15. Explain the usage of IT in i) Engineering and science
    ii) Education and training
16. Discuss about the input devise and output devise commonly used in computer.
17. Explain the following types of storage devices
    i) Floppy ii) CD iii) DVD iv) Hard disk v) Magnetic tap

VIVEKANANDA COLLEGE, TIRUVEDAKAM WEST
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B.Sc. Comp. Sci. Degree (Semester) Examinations, November 2015
Part – IV : Skill Based Subject : Third Semester : Paper – I

SYSTEM SOFTWARE
Under CBCS – Credit 2

Time: **2** Hours Max. Marks: **75**

SECTION – A

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

1. An _____ program is primarily concerned with the solution of some problem using the computer as a tool.
   a) application b) system c) network d) internet
2. In a assembly language program, the end of the each record is marked with a null character that is
   a) decimal 00 b) binary 00 c) octal 00 d) hexadecimal 00
3. Loaders that allow for program relocation are called _____ loaders.
   a) absolute b) bootstrap c) relative d) independent
4. A grammar for a programming language is also known as _____.
   a) syntax b) tokens c) statements d) semantics
5. In the actual editing phase, the target document is created (or) altered with a set of operations such as
   a) insert b) delete c) copy d) all the above
6. What is system software?
7. Define re locatable program?
8. Which function is called as dynamic linking?
9. What is the use of the scanner in compiler design?
10. DBMS is an acronym of _____.

SECTION – B

Answer ALL Questions : **(4 × 10 = 40)**

11. a) Briefly discuss about SIC Extra equipment machine architecture.

(OR)

b) Draw and explain T_3E architecture.

12. a) State and briefly explain basic assembler functions.

(OR)

b) Write notes on Microsoft assembler.

13. a) Briefly discuss Descent parsing with suitable example.

(OR)

b) State different type of compilers. Write note on any one of them.

14. a) Briefly discuss about Unix operating system with diagram.

(OR)

b) Explain structure of an editor in a brief manner.

SECTION – C

Answer any TWO Questions : **(2 × 12½ = 25)**

15. Explain POWER architecture in detail.
16. Describe the structure and logic of on pass assembler.
17. Explain the term “load on call” in detail.