Seat No.	

B.C.A. (Semester – I) (Old) (CGPA) Examination, 2017
INTRODUCTION TO INFORMATION TECHNOLOGY

Day & Date: Tuesday, 11-04-2017   Max. Marks: 70
Time: 10.30 AM to 01.00 PM

N.B. :   1) Q.*1* and Q.*7* are **compulsory**.
         2) Attempt **any two** questions from Q. **2, 3** and **4**.
         3) Attempt **any one** question from Q. **5** and **6**.
         4) Figures to the **right** indicate **full** marks.

Q.1 A) Select the single correct alternatives: **07**

1) A program is a sequence of _____ written in a programming language.
   a) Code word   b) Function
   c) Instruction   d) None of these

2) One millisecond is ____
   a) 1 second   b) 10th of a second
   c) 1000th of a seconds   d) 10000th of a seconds

3) Which computer memory is used for storing programs and data currently being processed by the CPU _____.
   a) Mass memory   b) Internal memory
   c) PROM   d) Non-volatile memory.

4) The translator program used in assembly language is called _____.
   a) complier   b) interpreter
   c) translator   d) Assembler

5) The octal equivalent of 111111 is _____.
   a) 72   b) 77
   c) 76   d) 78

6) The transistorized computer circuits were introduced in the _____.
   a) First generation   b) Second generation
   c) Third generation   d) Fourth generation

7) In Internet, the device used to connect two or more network is a _____.
   a) SNMP   b) Telnet
   c) Routers   d) None of these

Q.1 B) Fill in the blanks: 07
1) UNFVAC stands for _____
2) EEPROM stands for _____
3) Communication take place between objects called _____
4) _____ is most popular and effective pointing devices for GUI application.
5) The time sharing executes process according to _____.
6) The speed of a dot matrix printer is measured in _____.
7) _____ is a peripheral output device designed to get a soft copy of the output.

Q.2 Write answer of the following questions (Any two)
1) Define the computer generation. Explain the fifth generation of computer. 07
2) Define operation system. Explain different functions of operation system. 07
3) Define scanner. Explain the different types of scanner. 07

Q.3 Write answer of the following questions (Any two)
1) What is secondary memory? Explain magnetic disk in details. 07
2) What is printer? Explain printing mechanisms of Laser Printer. 07
3) Carry out the following conversions. (Any two) 07
    i) $(596)_{10} = (?)_8$
    ii) $(1101011.1010)_2 = (?)_{10}$
    iii) $(2B.C4)_{16} = (?)_{10}$

Q.4 Write answer of the following questions (Any two)
1) What is computer viruses? Explain the characteristics of viruses. 07
2) Define computer language? Explain Analogy with natural language. 07
3) What is computer? List out different types of computer? Explain types of computer according to Logic? 07

Q.5 1) What are the factors which should while purchasing the computer? 07
2) Explain the Time Sharing System and Real Time System in details. 07

Q.6 1) Draw the block diagram of computer? Explain in details all its functional units. 07
2) What is network topology? Explain the different types of network topology. 07

Q.7 Write short notes on (Any Two) 14
1) ASCII and BCD Code
2) OMR & MICR
3) Plotter

Seat No.

B.C.A. (Semester – I) (Old) (CGPA) Examination, 2017
PROCEDURAL PROGRAMMING THROUGH 'C'

Day & Date: Thursday, 13-04-2017   Max. Marks: 70

Time: 10.30 AM to 01.00 PM

N.B. :   1) Q.***1*** and Q.***7*** are ***compulsory.***
2) Attempt ***any two*** questions from Q. ***2, 3*** and ***4.***
3) Attempt ***any one*** question from Q. ***5*** and ***6.***

Q.1 A) Choose correct alternatives: **07**
1) _____ is minimum range value of data type having size 8 bits.
a) 32768   b) -128   c) -32767   d) 127

2) _____ Operator is also called 'Dereferencing operator'.
a) &   b) %   c) *   d) +

3) _____ function allows dynamic memory allocation.
a) malloc( )   b) calloc( )   c) both a & b   d) getch( )

4) _____ (is/are) derived data types in 'C' language.
a) Array   b) Pointer   c) Structure   d) Both a & b

5) Pass by_____ is default parameter passing technique in 'C' language.
a) Value   b) Pointer   c) Address   d) Reference

6) What is the output of following 'C' code:
```
void main ( )
{
    int   a=75;
    float  *p;
    p = & a;
    printf ("%f", *p);
}
```
a) 75   b) 75.0000   c) Both a & b   d) Compile time error

7) _____ is valid keyword used in 'C' language.
a) Array   b) Pointer   c) struct   d) All of these

Q.1 B) State whether True or False: **04**
1) 'C' language was developed by 'Ken Thompson'.
2) fopen( ) function belongs to stdio.h header file.
3) Using pointer we can access only address of another variable.
4) Parameters used at function call are called as actual parameter.

Q.1 C) Fill in the blanks: 03
    1) _____ is collection of homogenous elements.
    2) _____ function is used to read single integer value from file.
    3) _____ variables are accessible everywhere in program.

Q.2 Write answer of the following questions (Any two) 14
    1) What is Pointer? List out its characteristics and write a program to print array elements by using pointer.
    2) Write a program that checks entered number is Perfect or not using function without argument with return value.
    3) Explain 'switch' statement with one example.

Q.3 Write answer of the following questions (Any two) 14
    1) Write a program that demonstrates the use of array of structure.
    2) What is String? Explain strrev( ) and strcat( ) functions with example.
    3) Write a program that finds octal equivalent number of entered number.

Q.4 Write answer of the following questions (Any two)
    1) What is array? Explain all types of array in detail.
    2) Write a program that finds smallest number between four numbers.
    3) Write a program that prints following pattern: (Use 'for' loop) 07

```
            1
          2 1
        3 2 1
      4 3 2 1
    5 4 3 2 1
```

Q.5 1) What is Runtime memory allocation? Explain malloc( ) and free( ) functions with suitable example. 07
    2) Write a program that demonstrates the difference between structure and union. 07

Q.6 1) Explain different parameter passing techniques used in 'C' language. 07
    2) What is operator? Explain ternary, bitwise and sizeof operator in detail 07

Q.7 Write short notes on (Any Two) 14
    1) Flowchart
    2) Keywords and Identifier
    3) File and its different opening modes.

Seat No.	

B.C.A. (Semester – I) (Old) (CGPA) Examination, 2017
FUNDAMENTALS OF FINANCIAL ACCOUNTING

Day & Date: Monday, 17-04-2017   Max. Marks: 70
Time: 10.30 AM to 01.00 PM

N.B. :   1) Q.**1** and Q.**7** are **compulsory.**
         2) Attempt **any two** questions from Q. **2, 3** and **4.**
         3) Attempt **any one** question from Q. **5** and **6.**
         4) Figures to the **right** indicate **full** marks.
         5) **Use** of calculator is **allowed.**

Q.1 A) Select the correct alternatives: **07**
    1) LIFO stands for _____.
        a) Last In First Out   b) Last In Firm Out
        c) Least In First Out   d) None of the above

    2) Debit the expenses and losses and Credit the incomes and gains is a rule of _____.
        a) Real account   b) Nominal account
        c) Personal account   d) None of the above

    3) Fixed assets are valued at cost less _____.
        a) Expenses   b) Selling price
        c) Depreciation   d) Repairs

    4) When salary paid in cash _____ amount is credited.
        a) Salary   b) Cash
        c) Employees   d) Profit and Loss account

    5) Carriage inward is debited to the _____.
        a) Trading account   b) Profit and Loss account
        c) Cash account   d) Capital account

    6) _____ is an explanation of the journal entry passed.
        a) Transaction   b) Voucher
        c) Invoice   d) Narration

    7) Closing stock appears on _____ side of Balance Sheet.
        a) Liabilities   b) Assets
        c) Income   d) Expenditure

Q.1 B) State whether the following statements are True or False: **07**
1) An amount of net profit is debited to the capital account.
2) A list of balances of all the ledger accounts is called as Journal.
3) FIFO is a method of charging depreciation.
4) Trade discount is not recorded in the books of account.
5) Accrual is a fundamental accounting assumption.
6) Amount withdrawn from business for personal use is called as capital.
7) Gross profit is revealed by trading account.

Q.2 Write short notes (Any two)   **14**
1) Difference between book keeping and accountancy.
2) Methods of Inventory valuation
3) Accounting concept

Q.3 Journalize the following transactions in the books of Shankar &   **14**
Co.

2013		Rs.
June 1	Started business with a capital of	60,000
June 2	Paid into bank	30,000
June 4	Purchased goods from Kamal on credit	10,000
June 6	Paid to Shiram	4,920
June 6	Discount allowed by him	80
June 8	Cash Sales	20,000
June 12	Sold to Hameed	5,000
June 15	Purchased goods from Bharat on credit	7,500
June 18	Paid Salaries	4,000
June 20	Cash received from Prem	2,480
June 20	Allowed him discount	20
June 25	Withdrew from bank for office use	5,000
June 28	Withdraw for personal use	1,000
June 30	Paid Hanif by cheque	3,000

Q.4 A) Write short notes (Any one)   **07**
1) Merits and demerits of Diminishing Balance Method of Depreciation.
2) Define accounting and explain internal and external user of accounting.

B) From the following particulars ascertain the balance that would   **07**
appear in the Bank Pass Book of A on 31st December, 2011.
1) The bank overdraft a per Cash Book on 31st December, 2011 ₹6,340.
2) Interest on overdraft for 6 months ending 31st December, 2011 ₹160 is entered in Pass Book.
3) Bank charges of ₹30 are debited in Pass Book entry.
4) Cheques issued but not cashed prior to 31st December, 2011, amounted to ₹1,168.

5) Cheques paid into bank but not cleared before 31st December, 2011 were for ₹2,170.
6) Interest on investments collected by the bank and credited in the Pass Book ₹1,200.

Q.5 1) Objectives of Accounting.   **07**
2) Difference between Journal and Ledger.   **07**

Q.6 **The following are the details of a spare part of Sriram mills:**   **14**

1-1-2011	Opening Inventory	Nil
1-1-2011	Purchases	100 units @ ₹30 per unit
15-1-2011	Issued for consumption	50 units
1-2-2011	Purchases	200 units @ ₹40 per unit
15-2-2011	Issued for consumption	100 units
20-2-2011	Issued for consumption	100 units

Find out the value of Inventory as on 31-3-2011 if the company follows First in first out basis.

Q.7 Mr. Mohan gives you the following trial balance and some other   **14**
information.

Trial Balance as on 31st March, 2011

	Dr. ₹	Cr. ₹
Capital		6,50,000
Sales		9,70,000
Purchases	4,30,000	
Opening Inventory	1,10,000	
Freights Inward	40,000	
Salaries	2,10,000	
Other Administration Expenses	1,50,000	
Furniture	3,50,000	
Trade receivables and Trade payables	2,10,000	1,90,000
Returns	20,000	12,000
Discounts	19,000	9,000
Bad debts	5,000	
Investments in Government Securities	1,00,000	
Cash in Hand and Cash at Bank	1,87,000	
	18,31,000	18,31,000

Other Information:
1. Closing Inventory was ₹1,80,000;
2. Depreciate Furniture @ 10% p.a.

You are required to prepare Trading and Profit and Loss Account for the year ended on 31.3.2011 and Balance Sheet of Mr. Mohan as on that date.

Seat No.	

B.C.A. (Semester – I) (Old) (CGPA) Examination, 2017
BUSINESS COMMUNICATION

Day & Date: Wednesday, 19-04-2017   Max. Marks: 70

Time: 10.30 AM to 01.00 PM

N.B. :   1) Q.**1** and Q.**7** are **compulsory**.
2) Attempt **any two** questions from Q. **2, 3** and **4**.
3) Attempt **any one** question from Q. **5** and **6**.

Q.1 A) Rewrite the following questions by choosing correct   **10**
alternatives:

1) Open door police is the method of _____communication.
   a) Upward   b) Downward
   c) Horizontal   d) None of these

2) _____contains name and address of a company.
   a) Body of the letter   b) Subject
   c) Letter head   d) Reference

3) _____is an informal channel of communication in the organization.
   a) Vertical   b) Horizontal
   c) Grapevine   d) Consensus

4) _____is an example of electronic communication.
   a) Letter   b) Email
   c) Memo   d) Notice

5) The function of the receiver is to _____the message.
   a) Encoding   b) Decoding
   c) Send   d) None of these

6) The list of the subjects to be discussed in a meeting is called _____
   a) Notice   b) Agenda
   c) Minutes   d) Memo

7) _____classifies grapevine communication in to four types.
   a) Keith devis   b) Newman
   c) Scott   d) Springel

8) Wrong interpretation of words is known as _____ barrier.
   a) Physical   b) Semantic
   c) Scio-psychological   d) Cross-cultural

9) The communication flows from bottom to top level in the organization is called _____
   a) Downward   b) Upward
   c) Horizontal   d) Grapevine

10) Doing communication _____is/are important.
    a) Sender   b) receiver
    c) sender and receiver   d) media

Q.1 B) Write whether the following statements True or False: **04**
1) Communication is the life of blood of any business.
2) Capital letter is used lasting the sentence.
3) Encoding is function of receiver.
4) Gesture is an example of non-verbal communication.

Q.2 Write the answer of the following questions (Any two)   **14**
a) Explain the communication process with the help of neat diagram.
b) What is mean by meeting and write kinds of meeting?
c) What do you mean by barriers and explain physical (external) barriers.

Q.3 Write the answer of the following questions (Any two)   **14**
a) Write the parts of business letter.
b) Recipient's point of view (You attitude)
c) Write principles of communication (7 'c')

Q.4 Write answer of the following questions (Any two)   **14**
a) Mechanism of writing explains punctuation marks?
b) Explain grapevine communication.
c) What is mean by downward communication? Explain four importance.

Q.5 Answer the following questions.   **14**
a) Young energetic fresh graduates required for sales and accounts work in our group of company write application letter of Laxmi boards Ltd, AB Chambers, 16 dalal street, Mumbai 400 001
b) Write the bio-data/resume for above application letter.

Q.6 Answer the following questions.   **14**
a) Write types of communication in detail.
b) Write an enquiry letter to central marketing organization about stationary material and their quotation.

Q.7 Write short notes on the following (Any two)   **14**
a) Horizontal communication
b) Modern office communication
c) Write four objectives of communication
d) Internet

Seat No.

B.C.A. (Semester – I) (Old) (CGPA) Examination, 2017
DISCRETE MATHEMATICS

Day & Date: Friday, 21-04-2017   Max. Marks: 70
Time: 10.30 AM to 01.00 PM

N.B. :   *1) Q.1 and Q.7 are* **compulsory.**
           2) Attempt **any two** *questions from Q. 2, 3 and 4.*
           3) Attempt **any one** *question from Q. 5 and 6.*
           4) Use of **calculator** *is allowed*
           5) Figures to the **right** *indicate* **full** *marks.*

Q.1   A)   Choose the correct alternatives: **07**
      1) Conjunction of the statements p and q is true if and only if
         both the statements p and q are _____.
         a) true   b) false   c) true of false   d) true and false

      2) Let $A = \{x \mid x$ is a natural number less than 10 $\}$ then
         cardinality of set A is _____.
         a) 10   b) 9   c) ∞ d) 1

      3) If every element of set A is related to every element of set
         B then the relation is called as _____ relation.
         a) void   b) universal   c) function   d) reflexive

      4) If $f(x) = x^2 - 5x$ then $f(4) =$ _____.
         a) 16   b) 36   c) 4   d) – 4

      5) The non zero integers a and b are said to be _____
         integers if their g. c d. is 1.
         a) prime   b) reducible   c) relatively prime   d) invertible

      6) If $*$ is a binary operation defined on set A and if $(a * b) * c$
         $= a * (b * c)$, for all a, b, c $\in$ A, then $*$ is said to be ____.
         a) associative   b) commutative
         c) invertible   d) none of theses

      7) De Morgan's law is $(A \cap B)' =$ _____
         a) $A' \cap B'$ b) $A \cap B$ c) $(A \cup B)'$ d) $A' \cup B'$

Q.1   B)   Fill in the blanks: **04**
      1) The inverse of the conditional statement p $\longrightarrow$ q is _____.
      2) The cardinality of the set A = { 0 } is _____.
      3) If a set A contains 'n' elements then its power set will
         contains _____ elements.

4) If all the elements in matrix of relation R are 1 then relation R must be _____ relation.

Q.1 C) State whether the following statements are true or false: **03**
   1) If f(x) = y, then x is called as pre-image of y.
   2) $|A \cup B \cup C| = |A| + |B| + |C| - |A \cap B| - |A \cap C| - |B \cap C| + |A \cap B \cap C|$ where A, B, C are finite sets.
   3) $p \wedge (q \vee r) \equiv (p \wedge q) \wedge (p \wedge r)$

Q.2 Attempt any two of the following questions.   **14**
   1) Let A = {a, b, c, d, e}. Let R be the relation defined on the set A given by R = {(a, a), (a, b), (a, c), (b, a), (b, d), (c, b), (c, e), (d, d), (d, e), (e, a), (e, e)}. Then write matrix of relation R. Draw digraph of relation R. Also find in-degree and out-degree of each element of set A.
   2) Define relatively prime integers. Hence show that the integers 1357 and 1166 are relatively prime.
   3) Show that the function f: R ⟶ R defined by $f(x) = \frac{3x-5}{2}$ for all x ∈ R, is bijective function.

Q.3 Attempt any two of the following questions (Any two)   **14**
   1) How many integers between 1 to 987 which are divisible by 3 or 5 or 7.
   2) Construct the switching circuits for the following Boolean expression.
      i) $[(x \wedge y' \wedge z) \vee (y' \wedge z \wedge x) \vee (x' \wedge y)] \wedge (x' \vee y)$
      ii) $(x' \wedge y \wedge z) \vee (y' \wedge z)$
   3) Let R be the relation defined on the set Z by xRy if and only if (3x + 4y) is divisible by 7, x, y ∈ Z. Show that R is an equivalence relation on Z.

Q.4 Attempt any two of the following questions.   **14**
   1) Define cardinality of a set. Let U = {a, b, c, d, e, f, g, h}. Let P = {a, b, e, g, h} and Q = {a, c, d, e, f} be the subsets of U, then write the following sets and their cardinalities.
      i) P – Q   ii) P ⊕ Q   iii) P′
   2) Prepare the truth table for the following statement. Also state whether it is tautology or contradiction or neither.
      $\sim [(p \rightarrow q) \wedge \sim (p \leftrightarrow r)]$
   3) State Fermat's theorem. Hence find the remainder when 4^{398} is divided by 7.

Q.5 1) Translate into symbolic form and test the validity of following argument by using truth table.   **07**
   "I will pass B.C.A. if and only if I study regular. If I study regular then Discrete Mathematics is very easy. Discrete Mathematics is not easy. Therefore I studied regular and I pass B.C.A."
   2) Define transitive closure. Hence find transitive closure R* of the relation R = {(1, 1), (1, 2), (2, 2), (3, 1), (3, 2)} defined on   **07**

the set A = {1, 2, 3} by using klarshall's algorithm.

Q.6 1) Find g. c.d. of integers 389 and 167 by using Euclidean **07**
   algorithm. Also find the integers m and n such that
      (g.c.d. of 389, 167) = 389 m + 167 n
2) Define the following terms: **07**
      i)   Union of two sets
      ii)   Intersection of two sets
      iii) Symmetric difference of two sets

Q.7 **Attempt any two of the following:** **14**
1) Let A = {x, y, z} and B = {p, q, r}. Then show that
      i)   Cartesian product of sets A and B is not
         commutative.
      ii)   Union of the sets A and B is commutative.
2) Show that
      i) $\sim (p \wedge q) \equiv \sim p \vee \sim q$
      ii) $\sim (p \vee q) \equiv \sim p \wedge \sim q$
3) Define the terms
      i)   Universal relation
      ii)   Transitive relation and
      iii) Equivalence relation

Seat No.	

B.C.A. (Semester – II) (Old) (CGPA) Examination, 2017
OBJECT ORIENTED PROGRAMMING WITH C++

Day & Date: Wednesday, 12-04-2017   Max. Marks: 70
Time: 10.30 AM to 01.00 PM

N.B. :   1) Q.**1** and Q.**7** are **compulsory**.
            2) Attempt **any two** questions from Q. **2, 3** and **4**.
            3) Attempt **any one** question from Q. **5** and **6**.
            4) Figures to the **right** indicate **full** marks.

Q.1   A)   Choose correct alternatives: **05**
         1) _____ is logical operator.
            a) !=   b) !
            c) >=   d) None of these

         2) What is this operator called ? : ?
            a) conditional   b) relational
            c) casting operator   d) none of the mentioned

         3) _____is object based language.
            a) Ada   b) Smalltalk
            c) Java   d) none of the mentioned

         4) Reference variable provides _____ for previously defined
            variable.
            a) Reference   b) name
            c) Alias   d) none of the above

         5) If access specifier of base class is public then, all public
            members in base class remain _____in derived class.
            a) public   b) protective
            c) private   d) none of the above

Q.1   B)   State whether True or False: **05**
         1) C++ allows the declaration of variable anywhere in the
            scope.
         2) When a C++ program is executed the function that appears
            first in the program is executed first.
         3) A constructor is always declared in public section.
         4) Overloaded operators follow the syntax rules of the original
            operators.
         5) fstream provides support for simultaneous input and output
            operations.

Q.1 C) Fill in the blanks: 04
1) An inline function is a function that expands in a _____ line when it is invoked.
2) The constructor that does the dynamic construction is known as _____ constructor.
3) Virtual functions must be member of the _____ class.
4) As class with pure virtual function can not be _____.

Q.2 Write answer of the following questions (Any two)
1) Differentiate between procedures oriented and object oriented programming. 07
2) What is constructor? Explain features, types and role of constructor. 07
3) Explain the program structure of C++ program. 07

Q.3 Write answer of the following questions (Any two)
1) What is runtime polymorphism? How it is achieved. 07
2) Differentiate between structure and class. 07
3) Write a note on "in-line functions". When it is used. 07

Q.4 Write answer of the following questions (Any two)
1) What is friend function? What are the advantages of friend function? 07
2) What is operator overloading? Give the rules for operator overloading. 07
3) Write a note on "Nesting of classes". 07

Q.5 1) Explain the use of new, delete and scope resolution operator with example. 07
2) Write a program to exchange private values of two classes using friend function. 07

Q.6 1) Explain copy constructor with suitable example. 07
2) Write a program to copy the contents of a text file into another file. 07

Q.7 Write short notes on (Any Two) 14
1) Memory dereferencing operators
2) Benefits of OOP
3) Abstract base class

Seat No.	

B.C.A. (Semester – II) (Old) (CGPA) Examination, 2017
WEB TECHNOLOGY

Day & Date: Saturday, 15-04-2017   Max. Marks: 70

Time: 10.30 AM to 01.00 PM

N.B. :   1) Q.**1** and Q.**7** are **compulsory**.
         2) Attempt **any two** questions from Q. **2, 3** and **4.**
         3) Attempt **any one** question from Q. **5** and **6.**

Q.1   A)   Choose correct alternatives: **07**
   1) Which of the following is not a valid JavaScript variable name?
      a) 2java   b) _ java_ and _java _ names
      c) Javaandjava   d) None of the above

   2) Which of the following is correct to write "Hello World" on the web page?
      a) System.out. printIn("Hello World")
      b) print("Hello World")
      c) document.write("Hello World")
      d) response.write("Hello World")

   3) Java script can be used for Storing the form's content to a database file on the server.
      a) False   b) True

   4) Which of the following is used to create Web Page?
      a) JVM   b) HTML
      c) C   d) DTD

   5) Benefits of Internet?
      a) Education   b) Advertisement
      c) Careers   d) All of the above

   6) VBScript is provided by
      a) IBM   b) Sun Microsystem
      c) Microsoft   d) Google

   7) Which of the following ways below is correct to write a CSS?
      a) p {color: red; text-align:center};
      b) p {color: red; text-align:center}
      c) p {color: red; text-align:center;}
      d) p (color: red; text-align:center;)

Q.1 **B)** **Fill in the blanks:** 07
1) In HTML _____ is the largest heading tags.
2) CSS stands for _____
3) TCP/P stands for _____
4) An external style sheet is ideal when the style is applied to ____ pages.
5) Java script is a _____side language.
6) The browser uses _____ tag to detect javascript.
7) FTP stands for _____

Q.2 A) What is Protocol? Write a note one Internet Technology. 07
B) What is Browsers? Explain cross browser testing. 07

Q.3 A) What is HTML? Explain types of lists with suitable example, use formatting tags in example. 07
B) What is frameset in HTML? Why we use frames? Create three horizontal frames. 07

Q.4 A) Explain formatting tags in html with suitable example. 07
B) Explain align, bgcolor, border, cellpadding, cellspacing tag in table with suitable example. 07

Q.5 A) Explain Hidden Form Field, Input text, Check Box, Radio, Submit Button with suitable example. 07
B) What is CSS? Explain CSS with suitable example. 07

Q.6 A) What is event in Java script? Explain Onclick, Onload and Onchange events. 07
B) Explain Arithmetic operator in VBscript with suitable example. 07

Q.7 **Write short notes on:**
1) HTML Tables 04
2) Links in HTML 04
3) Variables in VB script 04
4) TCP/IP 02

Seat No.	

B.C.A. (Semester – II) (Old) (CGPA) Examination, 2017
FINANCIAL ACCOUNTING WITH TALLY

Day & Date: Tuesday, 18-04-2017   Max. Marks: 70
Time: 10.30 AM to 01.00 PM

> **N.B. :**   1) Q.**1** and Q.**7** are **compulsory.**
>   2) Attempt **any two** questions from Q. **2, 3** and **4.**
>   3) Attempt **any one** question from Q. **5** and **6.**
>   4) Figures to the **right** indicate **full** marks.

Q.1 A) Choose correct alternatives: **07**

1) Which shortcut key is pressed to create a new company in Tally?
   a) F3   b) F2
   c) Alt + F3   d) Alt + F2

2) How many groups are pre-defined in Tally?
   a) 28   b) 30
   c) 15   d) 20

3) In which voucher type credit purchase entry is posted in Tally?
   a) F5 : payment   b) F7 : journal
   c) F9 : purchase   d) F6 : receipt

4) Which option is used to enable VAT, TDS and Services Tax in Tally?
   a) Accounting features   b) Inventory features
   c) Statutory and taxation   d) None of these

5) We can modify an existing company from
   a) Company Info > Alter
   b) Company Info>Alter company
   c) Gateway of tally>modify company
   d) None of these

6) The shortcut used to activate calculator is
   a) Ctrl + N   b) Ctrl + M
   c) Ctrl + A   d) Ctrl + B

7) To declare a voucher as posted dated press
   a) Ctrl + T   b) Ctrl + P
   c) Alt + T   d) Ctrl + D

Q.1 B) Fill in the blanks: 07
1) Value of machinery comes under _____ group.
2) _____voucher records all fund transfer between Bank account or cash accounts.
3) _____means the amount withdrawn by proprietor from business for personal use in cash or kind.
4) _____ is a statement of liabilities and assets on a particular date?
5) _____ are used for recording day to day transactions.
6) To record transaction of future dates _____ type of voucher is used.
7) In receipt voucher cash account has ____ type of balance.

Q.2 Write answer of the following questions (Any two) 14
a) Explain the opening screen of the Tally.
b) Explain the features of Tally.
c) What is TDS? And how to create TDS Master and Ledger in Tally.

Q.3 Write answer of the following questions (Any two) 14
a) Explain the Bank Reconciliation Statement.
b) How to create a new company in Tally?
c) Explain the Scenario Management in Tally.

Q.4 Write answer of the following questions (Any two) 14
a) Draw journal specimen, ledger, trial balance specimen and Balance Sheet specimen.
b) Define voucher and explain different type of vouchers.
c) Explain in detail Units of measures.

Q.5 State voucher for following transaction. 14
1) Mr. Nitin starts business with Rs. 100000/-.
2) Paid for office building Rs. 5000/- and furniture for Rs. 1000/-.
3) Paid amount for rent Rs. 1000/-.
4) Rs. 5000/- withdrawn from bank for personal use.
5) Withdraws Rs. 1000/- for office use.
6) Received cash from Mr. Ganesh Rs. 1000/-.
7) Deposit Rs. 10, 000/- in Bank

Q.6 Define accounting. Explain the different concept of accounting. 14

Q.7 Answer the following: 14
a) Define VAT and explain different VAT rates, classification.
b) What is meant by sales order? How to create, alter and delete sales order.

Seat No.	

B.C.A. (Semester – II) (Old) (CGPA) Examination, 2017
DEVELOPMENT OF HUMAN SKILLS

Day & Date: Thursday, 20-04-2017   Max. Marks: 70
Time: 10.30 AM to 01.00 PM

N.B. :   1) Q.*1* and Q.*7* are *compulsory.*
             2) Attempt *any two* questions from Q. *2, 3* and *4.*
             3) Attempt *any one* question from Q. *5* and *6.*

Q.1 A) Choose correct alternatives: 07
1) The capacity to work is called as _____.
    a) Ability   b) Learning
    c) Reading   d) Writing

2) The speech is without any preparation is called as _____.
    a) Formal speech   b) Seminar
    c) Extempore speech   d) Conference

3) Interview is form of _____ Communication.
    a) oral   b) Written
    c) gesture   d) Reading

4) A process in which the person gets to know about himself is called _____.
    a) ability   b) values
    c) skill   d) self discovery

5) The word reinforcement is related to _____.
    a) Writing   b) Learning
    c) Ability   d) Speaking

6) Which of the following are not the characteristics of good speech _____.
    a) Concrete   b) confusing
    c) overview   d) clear

7) _____ Reader moves his lips & larynx while reading.
    a) Motor   b) auditory
    c) visual   d) sensory

8) The listener must judge the content of the message rather than the _____ of the speaker.
    a) Strength   b) Weakness
    c) Personality   d) Style

9) _____ is the ability to secure desirable action from a group of follows voluntarily use of core-coin.
   a) Creativity   b) Work style
   c) Leadership   d) Critical thinking

Q.1 B) Fill in the blanks: **05**
1) _____ is cursory reading.
2) _____ is a fundamental process of life to progress our self.
3) Good part of personality can be termed as _____ of the personality.
4) Goal setting is essential for _____.
5) Receivers response is called _____.

Q.2 Write answer of the following questions (Any two):   **14**
a) What is meant by human skills? Explain writing and learning skill.
b) Explain learning through reinforcement.
c) What is mean by attitudes and write sources or formation of attitude?

Q.3 Write answer of the following questions (Any two):   **14**
a) Define interview and types of interview.
b) What is mean by learning explain its types?
c) SWOT concept and analysis.

Q.4 Write answer of the following questions (Any two):   **14**
a) Explain leadership skill.
b) Explain computing skill.
c) Write a note on formal speech.

Q.5 Answer the following questions.   **14**
a) Explain employer's expectations during the interview.
b) Define values and write universal five values.

Q.6 Answer the following questions.   **14**
a) Write note on conducting Seminar.
b) What is meant by basic abilities? Explain their types.

Q.7 Write a short note (Any two)   **14**
a) Dos and Don'ts of GD?
b) Intellectual and social ability
c) Stress management skill
d) Planning to presentation

Seat No.

B.C.A. (Semester – II) (Old) (CGPA) Examination, 2017
BUSINESS STATISTICS

Day & Date: Saturday, 22-04-2017   Max. Marks: 70

Time: 10.30 AM to 01.00 PM

> **N.B. :**   1) Q.**1** and Q.**7** are **compulsory.**
> 2) Attempt **any two** questions from Q. **2, 3** and **4.**
> 3) Attempt **any one** question from Q. **5** and **6.**
> 4) Figures to the **right** indicate **full** marks.
> 5) Use of any type of calculator is allowed.
> 6) Graph paper will be supplied on request.

Q.1 A) Select most correct alternatives: **10**

1) In _____method entire population is studied.
   a) Census   b) Sampling
   c) Stratified Sampling   d) None of these

2) Classification is the technique used to _____.
   a) Condense the raw data
   b) Simplify the complex nature of data
   c) Compare two data sets
   d) All of these

3) The measure of central tendency that depends only on maximum frequency is _____.
   a) Median   b) mode   c) A.M.   d) all of these

4) The median of 9 observations is 31, if each observation is decreased 2 then median will be _____
   a) 9   b) 31
   c) 29   d) none of these

5) The most reliable measure of dispersion is _____
   a) Range   b) Coefficient of range
   c) s.d.   d) None of these

6) If two variables change in opposite direction, then there is ____correlation.
   a) positive   b) negative
   c) perfect   d) none of these

7) If regression coefficients are negative, then correlation between two variables is _____
   a) Positive   b) Negative

    c) May be positive or negative   d) None of these

8) _____is not a problem in construction of index number.
    a) Selection of weights   b) Selection of base period
    c) Selection of current period   d) None of these

9) If $P(A/B) = P(A)$, then events A and B are _____events.
    a) independent   b) dependent
    c) mutually exclusive   d) exhaustive

10)   If $corr(X,Y) = 0.3$, then $corr(2X,2Y) =$ _____
    a) 0.3   b) 0.6
    c) 0.15   d) None of these

Q.1 B) Write whether the following statements True or False: **04**
    1) Stratified sampling method provides a representative sample if population is heterogeneous.
    2) Mode can not be determined from ogives.
    3) Any sub-set of sample space is called event.
    4) Measure of dispersion 's. d.' is based on all observations.

Q.2 Attempt (Any two)   **14**
a) Explain stratified sampling method.
b) Compute median for the data given below.

Class	5-10	10-15	15-20	20-25	25-30	30-35
Frequency	4	7	11	9	6	3

c) Compute Karl Pearson's coefficient of correlation between X and Y and interpret the result. If $n = 15$, $\sum X = 165$, $\sum Y = 300$, $\sum X^2 = 2670$, $\sum Y^2 = 9540$, $\sum XY = 1945$

Q.3 Attempt (Any two)   **14**
a) Define – i) Class frequency ii) attribute iii) variable iv) class width
b) Find Laspeyre's, Paasche's and Fisher's price index number for the data given below.

Commodity	Base Period		Current Period	
	Price	Quantity	Price	Quantity
A	5	2	7	1.5
B	20	3	25	3.5
C	18	1.5	15	2

c) Following data shows information about wages of workers of factory A and B

	Factory-A	Factory-B
No. of Workers	50	70
A.M. of daily wages	75	65
Variance of daily wages	150	145

Find: i) Which factory shows large wage bill?
    ii) Which factory shows consistency in wages?

Q.4 **Attempt (Any two)**   **14**
   a) Define – S.D. and state its merits and demerits.
   b) A die is tossed 2 times. Write sample space and find probability of getting i) sum of numbers on upper face of dice is 9 ii) number on first die is even number.
   c) The equations of lines of regression Y on X and X on Yare 2X+4Y=80 and 9X+3Y=120 respectively.
      Find- i) A.M. of X and Y ii) correlation coefficient between X and Y.

Q.5 a) Define- i) equally likely events ii) exhaustive events iii) Probability   **07**
   b) Draw less than ogive to represent the following data and hence obtain median.   **07**

Class	30-35	35-40	40-45	45-50	50-55	55-60	60-65
Frequency	7	14	30	20	17	10	8

Q.6 a) Define correlation and interpret when r = +1, -1, 0   **07**
   b) The mean marks scored by all students in the class in 60. The mean marks scored by male and female students are 65 and 53 respectively. Find percentage of male and female students in the class.   **07**

Q.7 **Attempt any two:**   **14**
   a) Define – Index number and explain selection of commodities in construction of index no.
   b) Define – regression and state properties of regression coefficients.
   c) Given :
$$P(A) = \frac{3}{4}, \ P(B) = \frac{3}{5}, \ P(A \cap B) = \frac{3}{6}$$

$$find \ P(A \cup B), P(A/B), P(B/A).$$

Seat No.	

B.C.A. (Semester – III) (CGPA) Examination, 2017
DATA STRUCTURE USING 'C'

Day & Date: Tuesday, 11-04-2017   Max. Marks: 70
Time: 02.30 PM to 05.00 PM

N.B. :   1) Q.**1** and Q.**7** are **compulsory.**
        2) Attempt **any two** questions from Q. **2, 3** and **4.**
        3) Attempt **any one** question from Q. **5** and **6.**
        4) Figures to the **right** indicate **full** marks.

Q.1 A) Choose the single correct alternatives: **14**
1) The postfix form of A*B+C/D is _____
    a) *AB/CD+   b) AB*CD/+   c) A*BC+/D   d) ABCD+/*

2) In what kind of storage we can easily insert, delete, concatenate and rearrange substrings?
    a) Queue   b) Linked List   c) Stack   d) Array

3) The data structure required to check whether an expression contains balanced parentheses is _____
    a) Stack   b) Queue   c) Array   d) Tree

4) A stack is not First In First Out (FIFO) data structure.
    a) True   b) False

5) If the elements "A", "B", "C" and "D" are placed in a queue and are deleted one at a time, in what order will they be removed?
    a) DCBA   b) CADB   c) ABCD   d) None of these

6) A data structure in which elements can be inserted or deleted at/from both the ends but not in the middle is _____
    a) queue   b) circular queue
    c) priority queue   d) dequeue

7) A variant of linked list in which last node of the list points to the first node of the list is _____
    a) singly linked list   b) doubly linked list
    c) circular linked list   d) None of these

8) Which type of traversal of binary search tree outputs the value in sorted order?
    a) Pre-order   b) In-order
    c) Post-order   d) None of these

9) When converting binary tree into extended binary tree, all the original nodes in binary tree are _____
   a) internal nodes on extended tree   b) external nodes on extended tree
   c) vanished on extended tree   d) None of the above

10) If the given array is sorted on nearly, which of the following algorithm gives best performance?
    a) Insertion sort   b) Selection sort   c) Quick sort   d) Merge sort

11) Which of the following sorting procedure is slowest?
    a) Quick sort   b) Merge sort   c) Shell sort   d) Bubble sort

12) Which of the following is not a logical data structure?
    a) Tree   b) List   c) Stack   d) None of these

13) The post-order traversal of a binary tree is DEBFCA. Find out the pre-order traversal.
    a) ABFCDE   b) ADBFEC   c) ABDECF   d) ABDCEF

14) Stack can be implemented using _____ and _____.
    a) array, binary tree   b) linked list, graph
    c) array, linked list   d) queue, linked list

Q.2 A) What is data structure? Explain array as ADT with suitable example.   **07**
B) Write an algorithm to-   **07**
   1) insert data item into a queue
   2) delete data from a queue

Q.3 A) Explain in brief a linked list with its types.   **07**
B) Write a program in C to insert an element in an array at given position.   **07**

Q.4 A) What are the three traversal techniques for binary trees?   **07**
B) Explain binary tree representation.   **07**

Q.5 A) Write the algorithm for selection sort and give a suitable example.   **07**
B) Write and explain linear search procedure with a suitable example.   **07**

Q.6 A) Covert the following infix expressions into postfix form   **07**
   1) (A + B) * (C – D)
   2) A – B / (C + D * E)
B) Explain Exchange sort with example.   **07**

Q.7 **Write short notes on the following (Any two)**   **14**
   1) Indexed sequential search
   2) Threaded binary tree
   3) AVL Tree

Seat No.	

B.C.A. (Semester – III) (CGPA) Examination, 2017
NETWORKING AND DATA COMMUNICATION

Day & Date: Thursday, 13-04-2017   Max. Marks: 70
Time: 02.30 AM to 05.00 PM

N.B. :   1) Q.*1* and Q.*7* are **compulsory**.
       2) Attempt **any two** questions from Q. *2, 3* and *4*.
       3) Attempt **any one** question from Q. *5* and *6*.
       4) Figures to the **right** indicate **full** marks.

Q.1 A) Choose correct alternatives: **14**
1) The physical layer concerns with
   a) Bit-by-bit delivery
   b) Process to process delivery
   c) Application to application delivery
   d) None of the mentioned

2) Most packet switches use this principle.
   a) Stop and wait   b) Store and forward
   c) Both of the mentioned   d) None of the mentioned

3) In computer network nodes are
   a) the computer that originates the data
   b) the computer that routes the data
   c) the computer that terminates the data
   d) all of the mentioned

4) Railway track is the example of _____
   a) Simplex   b) Half Duplex
   c) Full Duplex   d) None of the above

5) Which layer is responsible for process to process delivery?
   a) Network layer   b) Transport layer
   c) Session layer   d) Data link layer

6) CRC stands for _____
   a) Cyclic redundancy check   b) Code repeat check
   c) Code redundancy check   d) Cyclic repeat check

7) Which one of the following is the multiple access protocol for channel access control?
   a) CSMA/CD   b) CSMA/CA
   c) Both a and b   d) None of the mentioned

8) Which one of the following is not a function of network layer?
   a) Routing
   b) Inter-networking
   c) Congestion control
   d) None of the mentioned

9) Bridge works in which layer of the OSI?
   a) Application layer
   b) Transport layer
   c) Network layer
   d) Data link layer

10) What protocol is used to find the hardware address of a local device?
    a) RARP
    b) ARP
    c) IP
    d) ICMP

11) The phone network uses circuit switching.
    a) True
    b) False

12) ___ topology uses multipoint technology.
    a) Star
    b) Bus
    c) Ring
    d) Mesh

13) In datagram network, each packet is treated independent.
    a) True
    b) False

14) Bridge is ____ device.
    a) Networking
    b) Connecting
    c) Internetworking
    d) Routing

Q.2 Write the answer of the following questions (Any two):   **14**
a) Explain Fiber optic cable in detail.
b) Differentiate between TCP and UDP.
c) Explain communication model in detail.

Q.3 Write the answer of the following questions (Any two):   **14**
a) Explain protocol hierarchy in detail.
b) Explain Link State Routing in detail.
c) Explain Real time transport protocol in detail.

Q.4 Write the answer of the following questions (Any two):   **14**
a) What is topology? Explain different types of topology.
b) Explain packet switching in detail.
c) Explain stop and wait protocol.

Q.5 Write the answer of the following questions.   **14**
a) Explain ISO-OSI reference model in detail.
b) Explain Data Compression in detail.

Q.6 Write the answer of the following questions.   **14**
a) Explain Transmission Mode in detail.
b) Explain shortest path algorithm.

Q.7 Write the short notes (Any two)   **14**
1) Bridge
2) Time Division multiplexing
3) Hamming distance
4) ARP & RARP

Seat No.	

B.C.A. (Semester – III) (CGPA) Examination, 2017
DATABASE MANAGEMENT SYSTEM

Day & Date: Monday, 17-04-2017   Max. Marks: 70
Time: 02:30 PM to 05:00 PM

N.B. :   1) Q.*1* and Q.*7* are **compulsory.**
        2) Attempt **any two** questions from Q. *2, 3* and *4.*
        3) Attempt **any one** question from Q. *5* and *6.*

Q.1 A) Choose correct alternatives: 07
   1) The level of data abstraction which describes how the data is actually stored is _____,
     a) physical level   b) conceptual level
     c) storage level   d) view level

   2) The overall design of a database is called _____
     a) Schema of the database   b) Structure of the database
     c) The screen of the database   d) View of the database

   3) Which of the following is not a proper state of transaction?
     a) partially aborted   b) partially committed
     c) aborted   d) committed

   4) Rollback of transaction is normally used to _____.
     a) recover from transaction failure
     b) update the transaction
     c) retrieve old records
     d) repeat a transaction

   5) A view of database that appears to an application program is known as _____.
     a) report   b) structure
     c) subschema   d) schema

   6) _____ is an example of entity.
     a) Student name   b) Student
     c) Student address   d) Roll number

   7) The advantage of normalization is _____.
     a) to avoid redundancy   b) increase flexibility
     c) Both a and b   d) None of these

Q.1 B) State whether True or False: 04
1) A relationship is an association among several entities.
2) A candidate key can be a subset of a super key.
3) A weak entity set has a primary key.
4) Aggregation operation is used to construct complex entities.

Q.1 C) Fill in the blanks: 03
1) The language used for data modification is known as _____.
2) The primary key index does not allow ____ data in a field.
3) The rule of 3NF is _____.

Q.2 Write answer of the following questions (Any two): 14
a) State and explain different transaction properties.
b) What is data model? Explain the record based data model.
c) What is DBMS? Explain purpose of DBMS with suitable example.

Q.3 Write answer of the following questions (Any two): 14
a) Describe briefly Relational Algebra. Explain any two relational algebra operators with example.
b) What is normalization? Explain 2NF with suitable example.
c) Explain specialization and aggregation in details.

Q.4 Write answer of the following questions (Any two): 14
a) Explain in detail deadlocks.
b) What is indexing? Explain various methods of indexing.
c) Explain timestamp based protocol.

Q.5 A) Explain architecture of DBMS. 07
B) Explain the different notations used in ER-diagram. 07

Q.6 A) Explain two-tier and three-tier architecture. 07
B) Write a short note on log based recovery method. 07

Q.7 Write short notes on (Any Two): 14
1) Shadow paging
2) Schemas and instances
3) Serializability

Seat No.	

B.C.A. (Semester – III) (CGPA) Examination, 2017
CORE JAVA

Day & Date: Wednesday, 19-04-2017   Max. Marks: 70
Time: 2:30 PM to 05.00 PM

N.B. :   1) Q.**1** and Q.**7** are **compulsory**.
             2) Attempt **any two** questions from Q. **2, 3** and **4**.
             3) Attempt **any one** question from Q. **5** and **6**.
             4) Figures to the **right** indicate **full** marks.

Q.1   A)   Choose correct alternatives: **07**
1) What will be the value of x after the following section of code executes
   int x = 5;
   if(x>3)
   x=x+2
   else
   x=x-2
   a) 1   b) 3   c) 5   d) 7

2) The lowest index that can be used with an array
   a) is zero
   b) is one
   c) is determined by the array declaration
   d) none of the above

3) Which block contains a block of program statements within which an exception might occur?
   a) catch   b) try
   c) throw   d) final

4) Which is super class of all exception classes?
   a) Throwable   b) Exception
   c) RuntimeException   d) IOException

5) Many threads at a time can run in a single process?
   a) True   b) False

6) A final class not to be inherited?
   a) True   b) False

7) Which is the result of following code?
   System.out.println("1 + 2 =" + 1 + 2);
   a) 3 = 3   b) 1 + 2 = 12
   c) 1 + 2 = 3   d) All of the above

Q.1 B) Fill in the blanks: 04
     1) An! Sign in an expression means _____.
     2) A case label is used with a _____ statement.
     3) Command to execute compiled java program is _____.
     4) Single quotes are used with constants of the ___ type.

Q.1 C) State true or false: 03
     1) Every statement with if must also include else.
     2) The = = operator used to see if two strings have the same characters.
     3) AWT is an extended version of Swing.

Q.2 a) Explain any five data types in java. 05
     b) What is variable? Explain with suitable example. 05
     c) Write a note on Structure of java program. 04

Q.3 a) Explain protected, public and default Access control in java with suitable example. 05
     b) Explain the usage of this keyword with one suitable example. 05
     c) Write a note on method overriding. 04

Q.4 a) Write a java program to input values of 3 *3 two matrices and print addition and subtraction of these values. 07
     b) Write a program to input 10 values of one dimensional array and print sum of odd and even values and there average. 07

Q.5 A) Explain java thread life cycle with suitable diagram. 07
     B) Explain Try catch block with suitable example. 07

Q.6 A) What is constructor? Explain types of constructor with suitable example. 07
     B) Explain Inheritance with suitable example. 07

Q.7 Write short notes:
     1) Listeners in java 04
     2) Decision making statements 04
     3) Static Key Word in java 04
     4) Super Key Word 02

Seat No.	

B.C.A. (Semester – III) (CGPA) Examination, 2017
FINANCIAL MANAGEMENT

Day & Date: Friday, 21-04-2017　　　　　　　　　　Max. Marks: 70
Time: 2:30 PM to 05:00 PM

N.B. :　1) Q.**1** and Q.**7** are **compulsory.**
　　　　　2) Attempt **any two** questions from Q. **2, 3** and **4**.
　　　　　3) Attempt **any one** question from Q. **5** and **6**.

Q.1　A)　Choose correct alternatives:　　　　　　　　　　　07
　　　1) Business Finance deal with all _____ of Business.
　　　　a) Planning activities　　　b) Financial activities
　　　　c) Managerial activities　　d) Manufacturing activities

　　　2) ____ is a basic principle of any business activity.
　　　　a) Profit maximization　　　b) Wealth maximization
　　　　c) Higher divided　　　　　d) None of the above

　　　3) The difference between current assets & current liabilities is a
　　　　_____ capital.
　　　　a) Debt　　　b) Fixed　　　c) Working　　　d) None

　　　4) _____ refers to the assessment of financial requirement
　　　　then arranging the source of capital.
　　　　a) Financial planning　　　b) Financial budgeting
　　　　c) Capital requirement　　　d) Selling

　　　5) Equity shares are paid dividend at _____ rate.
　　　　a) Fluctuating　　b) Fixed　　c) High　　　d) Lower

　　　6) Operating leverage results form _____
　　　　a) Operating profit　　　b) Variable costs
　　　　c) Fixed costs　　　　　d) Operating expenses

　　　7) What does ploughing back of profit mean?
　　　　a) Earning black money
　　　　b) Dividend not claimed by the share holder
　　　　c) Not paying a dividend in a certain year
　　　　d) Retaining the earning

Q.1　B)　State whether True or False:　　　　　　　　　　07
　　　1) It is not possible to go ahead without financial planning.
　　　2) Operating leverage x financial leverage = combined leverage
　　　3) Working capitals are required to meet the long term needs of
　　　　the business.
　　　4) Debenture holder can participate in the management of the
　　　　company.

5) Rate of dividend payable on preference shares is not fixed.
6) EBIT means Earnings before Interest & Taxes.
7) Profit making is essential for the survival growth of the business.

Q.2 Write short notes (Any two):   **14**
a) Importance & types of working capital.
b) Importance of financial management.
c) Over capitalization and under capitalization.

Q.3 Write short notes (Any two):   **14**
a) Features of profit maximization.
b) Function of financial manager.
c) Merit & demerits of wealth maximization.

Q.4 Write answer of the following questions (Any two):   **14**
a) Define working capital & state the components of working capital.
b) Explain the steps in financial planning.
c) From the following information prepare a statement showing working capital requirement.

Budgeted sales	Rs. 2, 60, 000 p.a.
Analysis of one rupee of sales	Rs
Raw material	0.30
Direct labor	0.40
Overheads	0.20
Total cost	0.90
Profit	0.10
Sales	1. 00

It is assumed that:
a) Raw materials are carried in stock for 3 weeks & finished goods for 2 weeks.
b) Factory processing will take 3 weeks.
c) Creditors require 5 weeks.
d) Customer will require 8 weeks credit. It may be assumed that Production & overheads accrue evenly throughout the year. In a year there are 52 weeks.

Q.5 A) What is working capital? State the determinants of requirement of working capital.   **07**
B) What are the objectives of financial management?   **07**

Q.6 A) Define financial planning & state the importance of financial planning.   **07**
B) Critically evaluate the objectives of maximization of profit.   **07**

Q.7 Write short notes on (Any Two):   **14**
1) Equity shares
2) Operating leverage & financial leverage
3) Needs of working capital

Seat No.	

B.C.A. (Semester – IV) (CGPA) Examination, 2017
SOFTWARE ENGINEERING

Day & Date: Wednesday, 12-04-2017   Max. Marks: 70
Time: 02.30 PM to 05.00 PM

N.B. :   1) Q.**1** and Q.**7** are **compulsory**.
               2) Attempt **any two** questions from Q. **2, 3** and **4**.
               3) Attempt **any one** question from Q. **5** and **6**.
               4) Figures to the **right** indicate **full** marks.

Q.1 A) Choose correct alternatives: **14**

1) The most important feature of spiral model is _____.
   a) Requirement analysis   b) Risk management
   c) Quality management   d) Configuration management

2) In a DFD external entities are represented by a _____.
   a) Rectangle   b) Ellipse
   c) Diamond Box   d) Circle

3) The objective of testing is _____.
   a) Debugging   b) To gain modularity
   c) To analyze system   d) Programming

4) Changes made to the system to reduce the future system
   failure chances is called _____
   a) Preventive Maintenance   b) Adaptive Maintenance
   c) Corrective Maintenance   d) Perfective Maintenance

5) DFD stands for Data Flow Diagram.
   a) True   b) False

6) Cost-Benefit Analysis is performed during _____
   a) Analysis phase   b) Design phase
   c) Feasibility study phase   d) Implementation phase

7) Which phase is not available in software life cycle?
   a) Coding   b) Testing
   c) Maintenance   d) Abstraction

8) Structured charts are a product of _____
   a) Requirements gathering   b) Requirements analysis
   c) Design   d) Coding

9) Software engineering is the systematic approach to the _____.
   a) Development of software   b) Maintenance of software
   c) Operation of software   d) All of these

10) In decision trees branches represent actions to be performed.
    a) True   b) False

11) Primary goal of software engineering is to improve the _____.
    a) Technique   b) Quality
    c) Both a and b   d) None of these

12) _____ is the main source of external elements.
    a) Control   b) Feedback
    c) Environment   d) Boundaries

13) The process in which existing data is loaded into a new system is referred as data conversion.
    a) True   b) False

14) To run the old system and the new system at the same time for a specified period, the system implementation approach used is ___
    a) pilot   b) phase
    c) parallel   d) direct

Q.2	A) What is data capture? State its objective.	05
	B) Explain the role of system analyst.	05
	C) What do you mean by 'configuring the system'?	04

Q.3	A) Explain the components of data dictionary.	05
	B) Explain white box testing.	05
	C) Give the advantages of normalization.	04

Q.4	A) Explain different symbols used in DFD.	05
	B) Explain different qualities of software.	05
	C) Write note on need of testing.	04

Q.5	A) What is system? Explain different types of system.	07
	B) Draw CLD and 1st level DFD for Library system.	07

Q.6	A) Explain decision table with suitable example.	07
	B) Explain bottom-up incremental implementation. State its advantages and disadvantages.	07

Q.7 Write short notes on the following (Any two):   **14**
   1) Feasibility Study with its need
   2) Data Validation
   3) Principles of flowcharting

Seat No.

B.C.A. (Semester – IV) (CGPA) Examination, 2017
RDBMS WITH ORACLE

Day & Date: Saturday, 15-04-2017   Max. Marks: 70

Time: 02.30 PM to 05.00 PM

N.B. :   1) Q.**1** and Q.**7** are **compulsory**.
2) Attempt **any two** questions from Q. **2, to 4**.
3) Attempt **any one** question from Q. **5** and **6**.
4) All question carry **equal** marks.

Q.1 A) Choose correct alternatives: **14**

1) _____is buffer which will store the results of the recent query.
   a) cursor   b) table   c) view   d) all

2) Which SQL keyword is used to sort the result set?
   a) Order   b) Sort   c) Order by   d) None

3) The _____constraint can only be applied at column level.
   a) Foreign key   b) Primary key   c) Not null   d) None of these

4) _____group function ignores null values.
   a) max ()   b) count ()   c) sum ()   d) count (*)

5) The statement in SQL which allows changing the definition of a table is _____.
   a) Select   b) Update   c) Create   d) Alter

6) The RDBMS terminology for a row is _____
   a) Tuple   b) Relation   c) Attribute   d) All of the above

7) _____operator is used for appending two strings.
   a) &   b) %   c) || d) _

8) _____command is used to provide alias to a table or view.
   a) Sequence   b) Synonym   c) Cluster   d) Index

9) _____is assignment operator in PL/SQL.
   a) = =   b) =   c) : =   d) None of above

10) A primary key that consists of more than one field is called a _____.
    a) Composite key   b) Secondary key
    c) Group key   d) All of these

11) What does the following SQL statement do?
    Select * From Customer Where Cust_Type ="Best";
    a) Selects all the fields from the Customer table for each row with a cust_ type "best"
    b) Selects the"*" field from the Customer table for each row with a cust_type "best"

c) Selects fields with a"*" in them from the Customer table.
d) Selects all the fields from the Customer table for each row with a cust_type"*"

12) What is the result of the "SELECT CEIL (3.6) FROM DUAL" query?
a) 3.5   b) 3.0   c) 4   d) 3.7

13) When implementing security in a DBMS, which of the following is **not** supported by the GRANT command?
a) Providing DELETE privileges
b) Changing passwords
c) Removing privileges of other people
d) Providing SELECT privileges

14) Consider the following four tasks.
i) Changing data in one or more rows in a table
ii) Defining a View
iii) Removing a row from a table
iv) Removing a view
Which SQL keywords have to be used to accomplish the above four tasks?
a) i) ALTER ii) CREATE iii) DELETE iv) DROP
b) i) ALTER ii) CREATE iii) INSERT iv) DELETE
c) i) UPDATE ii) CREATE iii) DELETE iv) DROP
d) i) UPDATE ii) CREATE iii) DROP iv) UPDATE

Q.2 A) Write the difference between DBMS and RDBMS   **05**
B) List the DML commands? Explain with syntax.   **05**
C) Explain any four string functions with example.   **04**

Q.3 A) What is stored procedure? Explain IN & OUT parameters with suitable example.   **05**
B) What is exception in Oracle? Explain structure of exception handling with suitable example.   **05**
C) Write the difference between SQL and PL/SQL.   **04**

Q.4 A) Write a PL/SQL to check entered number is prime or not.   **05**
B) Explain Cartesian Join and Equi-Join with syntax.   **05**
C) What is view? Explain with example.   **04**

Q.5 A) Explain different Integrity constraints in details.   **07**
B) Explain different looping statements in PL/SQL.   **07**

Q.6 A) What is cursor? Explain types of cursor with suitable example.   **07**
B) What is function? Explain with suitable example.   **07**

Q.7 **Write short notes on the following (Any two):**   **14**
1) Sub Queries and Nesting Queries with example
2) Trigger with example
3) Indexes with example

Seat No.	

B.C.A. (Semester – IV) (CGPA) Examination, 2017
OPERATING SYSTEM

Day & Date: Tuesday, 18-04-2017   Max. Marks: 70
Time: 2:30 PM to 05:00 PM

N.B. :   1) Q.**1** and Q.**7** are **compulsory.**
           2) Attempt **any two** questions from Q. **2, 3** and **4.**
           3) Attempt **any one** question from Q. **5** and **6.**
           4) Figures to the **right** indicate **full** marks.

Q.1 A) Choose correct alternatives: **10**

1) The operating system where fixed time slot is allocated to each active process is _____.
   a) real time O.S   b) multiprogramming O.S
   c) batch O.S   d) time-sharing O.S

2) A program in execution is called _____.
   a) Process   b) Instruction
   c) Procedure   d) Function

3) Interval between the time of submission and completion of the job is called _____.
   a) Waiting time   b) turn-around time
   c) Throughput   d) response time

4) FIFO scheduling is _____.
   a) preemptive scheduling   b) Non-preemptive scheduling
   c) deadlock scheduling   d) None of these

5) "Throughput" of a system is _____
   a) Number of programs processed by it per unit time
   b) Number of times the program is invoked by the system
   c) Number of requests made to a program by the system
   d) None of the above

6) There is a guarantee that the critical tasks are completed in given amount of time. That is called as _____
   a) Hard real time system   b) Soft real time system
   c) Real time system   d) None of the above

7) Virtual memory can be implemented with _____
   a) Segmentation   b) Paging
   c) Both a and b   d) None of the above

8) _____ is a technique of temporarily removing inactive programs from the Memory of computer system.
   a) Swapping
   b) Spooling
   c) Semaphore
   d) Scheduler

9) The priority scheduling algorithm suffers by _____
   a) starvation
   b) aging
   c) deadlock
   d) All of these

10) The FIFO algorithm _____
   a) executes first the job that last entered the queue
   b) executes first the job that first entered the queue
   c) executes first the job that has been in the queue the longest
   d) executes first the job with the least processor needs

Q.1 B) State True or False: **04**
   1) An operating system can be viewed as "resource allocator" to control various I/O devices and user programs.
   2) Main Frame operating system was used for many commercial and scientific application.
   3) Process is called as a passive entity.
   4) The degree of Multiprogramming is controlled by Long-term Scheduler.

Q.2 Write answer of the following questions (Any two)   **14**
   a) Define Operating System. List out different types of Operating System. Explain Time Sharing Operating System and Real Time Operating System.
   b) Explain The Different Services provided by Operating System.
   c) CPU burst time indicates the time, the process needs the CPU. The following are the set of processes with their respective CPU burst time (in milliseconds).

   Processes   CPU-burst time
       P1   10
       P2   5
       P3   5

   Calculate the average waiting time and average turnaround time if the process arrived in the following order:
   i)   P1, P2 & P3
   ii)   P2, and P3 & P1

Q.3 Write answer of the following questions (Any two)   **14**
   a) Define the term process. Describe the contents of a Process Control Block (PCB)
   b) Define the term deadlock? Explain the necessary conditions for deadlock to occur.
   c) Describe swapping and virtual memory in detail.

Q.4 **Write answer of the following questions (Any two)** **14**
    a) What are semaphores? Explain semaphores in detail?
    b) Explain the different Scheduling criteria in detail.
    c) Define the term file? Explain different types of file.

Q.5 **Answer the following questions.** **14**
    a) What is critical section problem? Explain Bounded Buffer problem?
    b) Explain with the help of examples FIFO and LRU page replacement algorithms?

Q.6 **Answer the following questions.** **14**
    a) What is Scheduling? Explain Round Robin Scheduling algorithm with example.
    b) What is Segmentation? Explain Segmentation in details.

Q.7 **Write answer of the following questions (Any two)** **14**
    a) What are the different directory structures available? Explain in details.
    b) Explain deadlock detection technique in details.
    c) Write short note on Monolithic and Layered Systems

Seat No.	

B.C.A. (Semester – IV) (CGPA) Examination, 2017
WEB TECHNOLOGY - II

Day & Date: Thursday, 20-04-2017   Max. Marks: 70
Time: 02.30 PM to 05.00 PM

N.B. :   1) Q.*1* and Q.*7* are **compulsory.**
           2) Attempt **any two** questions from Q. *2, 3* and *4*.
           3) Attempt **any one** question from Q. *5* and *6*.
           4) Figures to the **right** indicate **full** marks.

Q.1 A) Choose correct alternatives: **14**

1) Which of the following is the advantage of PHP?
   a) Open source software   b) Support cross platform
   c) Both a and b   d) None of these

2) Which function count elements in an array?
   a) count   b) Sizeof_ array
   c) Array _Count   d) Count _array

3) When using the POST method, variables are displayed in the URL.
   a) True   b) False

4) Use the _____ to delete the data inside the table but not the table itself.
   a) drop table   b) delete table
   c) truncate table   d) remove table

5) Session is client's information for a particular site stored on servers temporary memory.
   a) True   b) False

6) _____keyword is used to refer to properties or methods within the class itself.
   a) private   b) public   c) protected   d) $this

7) Which of the following keyword allows class members to be used without needing to instantiate a new instance of the class?
   a) protected   b) final   c) static   d) private

8) In PHP a variable needs to be declaring before assign.
   a) True   b) False

9) Which of the following variable names are invalid?
   a) $var_1   b) $var1   c) $var%1   d) $var

10) The feof() function checks if the "end-of-file" (EOF) has been reached.
    a) True   b) False

11) _____keyword is used to make variable persist across function.
    a) super   b) global   c) static   d) parent

12) The include() and require() are same in every aspects.
    a) True   b) False

13) _____keyword is used to avoid method overriding.
    a) Super   b) Final   c) Abstract   d) Construct

14) Which of the following function is used to redirect a page?
    a) redirect()   b) header()   c) reflect()   d) All of these

Q.2 A) Explain benefits of PHP as a server side languages.   **05**
         B) Explain function and its types.   **05**
         C) Write note on passing arguments to a function by reference. **04**

Q.3 A) Describe the installation steps on MySQL on windows environment.   **05**
         B) List and explain date time functions.   **05**
         C) Write note on basic structure of PHP program.   **04**

Q.4 A) Define interface. Explain use of interface with suitable example.   **05**
         B) Explain form control events with suitable example.   **05**
         C) Write note on PHP data types.   **04**

Q.5 A) Explain the steps to establish the connection from PHP to MySQL with code.   **07**
         B) What is a Cookie? Explain with suitable example.   **07**

Q.6 A) What are data validations? Explain server-side data validations.   **07**
         B) Explain different sorting techniques of arrays with proper examples.   **07**

Q.7 **Write short notes on the following (Any two)**   **14**
         1) Reading and writing text files
         2) Creating and destroying session
         3) Insert, update, delete queries in MySQL

Seat No.	

B.C.A. (Semester – IV) (CGPA) Examination, 2017
E-COMMERCE

Day & Date: Saturday, 22-04-2017 Max. Marks: 70

Time: 2:30 PM to 05:00 PM

N.B. : *1) Q.**1** and Q.**7** are **compulsory.***
*2) Attempt **any two** questions from Q. **2, 3** and **4.***
*3) Attempt **any one** question from Q. **5** and **6.***

Q.1 A) Choose correct alternatives: 07
1) The actual physical network made up of wires, cables, and satellites that connects computers and resources throughout the world is the
 a) Web b) Internet
 c) E-commerce d) Spiders

2) Most common uses of the Internet and the Web include communicating, shopping,
 a) searching, entertainment and education
 b) e-commerce, e-mail and searching
 c) e-mail, entertainment and education
 d) e-commerce, e-mail and education

3) The most common method for gaining access to the Internet is through a _____
 a) dumb terminal b) virtual provider or computer
 c) point-to-point computer d) provider or host computer

4) These types of commercial Internet service providers are the most widely used
 a) national service providers
 b) regional service providers
 c) centralized service providers
 d) decentralized service providers

5) The two basic parts of URLs are
 a) TCP/IP and ISP
 b) destination and device
 c) the protocol and the domain name
 d) TCP and IP

6) The extensions .gov, .edu, .mil, and .net are called
 a) DNSs b) e-mail targets
 c) domain codes d) mail to addresses

7) HTML is an acronym for _____
   a) Hyperlink Markup Language
   b) Hypertext Markup Language
   c) Hypertext Markup Link
   d) Hypertext Modern Language

Q.1 B) Fill in the blanks: 07

1) The _____ is a multimedia interface to resources available on the Internet.
2) In the e-mail address "sallysilverspoon@macaroon.org," what is the domain name?
3) The second part of a URL is referred to as the ____ name. It identifies the server where the resource is located.
4) _____ are special programs that are typically written in a programming language called Java.
5) Destructive programs that are often attached to unsolicited e-mail are called computer _____
6) In a _____ search, you enter a phrase reflecting the information you want.
7) Criminals known as _____ specialize in stealing, trading and using stolen credit cards over the Web.

Q.2 Write a short note (Any two) 14
a) What is Electronic commerce?
b) Objective of E-commerce.
c) Features of E-commerce.

Q.3 Answer the following: 14
a) What is Supply chains management?
b) Introduce to business strategy.

Q.4 Answer the following: 14
a) Future of electronic market.
b) Benefits of Electronic Data Interchange.

Q.5 Answer the following: 14
a) Introduce to internet banking.
b) Explain the functions of E-commerce.

Q.6 Answer the following: 14
a) What is customer to customer electronic commerce?
b) Explain the type of Electronic Payment System.

Q.7 Write a short note (Any two) 14
a) Steps for electronic payment system
b) E-Marketplace
c) Features of supply chain management

Seat No.

B.C.A. (Semester – V) (New) (CGPA) Examination, 2017
ADVANCED JAVA - I

Day & Date: Tuesday, 11-04-2017   Max. Marks: 70
Time: 10.30 AM to 01.00 PM

N.B. :   1) Q.**1** andQ.**7** are **compulsory.**
             2) Attempt **any two** questions from Q. **2, 3** and **4.**
             3) Attempt **any one** question from Q. **5** and **6.**

Q.1 A) Choose correct alternatives: **09**
1) Which of the following type of JDBC driver, call native code of the locally available ODBC driver?
   a) JDBC-ODBC Bridge plus ODBC driver
   b) Native-API, partly Java driver
   c) JDBC-Net, pure java driver
   d) Native-Protocol, pure java driver

2) Which method is used to start the Applet?
   a) main()   b) destroy()   c) init()   d) Repaint()

3) XML is designed to store data and?
   a) Design   b) Verify   c) Transport   d) Both a & b

4) Which of the following true about JDBC?
   a) The JDBC is an API to access different relational database
   b) You use it to access relational database without embedding a dependency on a specific database type in your code.
   c) JDBC stands for Java Database Connectivity
   d) All of the above

5) Which class can handle any type of request so it is protocol-independent?
   a) GenericServlet   b) HttpServlet
   c) Both a & b   d) None of these

6) In applet which attributes are mandatory?
   a) name, height, width   b) code, name
   c) codebase, height, width   d) code, height, width

7) Which is correct syntax of the declaration that defines the XML version?
   a) <? xml version="1.0" ?>   b) <xml version="1.0" />
   c) <? xml version="1.0" />   d) None of the above

8) Which is a special type of program that is embedded in the webpage to generate the dynamic content?
   a) Package   b) Applet   c) Browser   d) None of the above

9) These methods doGet(),doPost(),doTrace() are used in?
   a) GenericServlet   b) HttpServlet
   c) Both a & b   d) None of these

Q.1 B) State True or False: **05**
1) init() and destroy() method will be called only once during the lifetime of servlet.
2) CallableStatement are used to call SQL stored procedure.
3) Tomcat is an open source web server.
4) XML stands for Extensible Markeup Language.
5) Servlet technology is used to create web application?

Q.2 Attempt any two fromthe questions.(Any two)   **14**
a) What is Servlet? Explain the use of doGet() and doPost() method.
b) What is an applet? Explain the life-cycle of applet.
c) Write a program to insert the employee number, Name and age of an employee. (Using Prepared Statement)

Q.3 Attempt any two from questions.(Any two)   **14**
a) What is Cookies? Explain methods of cookies.
b) Explain the tree structure of an XML with example.
c) Explain applet HTML tag with suitable example.

Q.4 Attempt any two from the questions.(Any two)   **14**
a) Explain the types of JDBC-drivers with their advantage and disadvantages.
b) What is the use of xml? Explain elements of xml.
c) Write a applet program to display current date and time.

Q.5 a) Explain three different types of JDBC statements in terms of their usage.   **14**
b) Explain servlet-life cycle in details.

Q.6 a) What is Session? Explain hidden form field using session management.   **14**
b) Explain JDBC architecture.

Q.7 Write short notes on: (Any two)   **14**
a) include() and forward() methods of RequestDispatcher
b) ServletContext
c) Parameter passing in applet

Seat No.

B.C.A. (Semester – V) (New) (CGPA) Examination, 2017
VISUAL PROGRAMMING

Day & Date: Thursday, 13-04-2017   Max. Marks: 70

Time: 10.30 AM to 01.00 PM

N.B. :   1) Q.**1** and Q.**7** are **compulsory**.
2) Attempt **any two** questions from Q. **2, 3** and **4**.
3) Attempt **any one** question from Q. **5** and **6**.
4) All question carry equal marks.

Q.1 A) Choose correct alternatives: **14**

1) What is return type of constructors?
   a) int   b) float   c) void   d) None of these

2) _____operator can be used to concatenate two or more String objects.
   a) +   b) +=   c) &   d) ||

3) Which of the following statement is correct?
   a) A struct can contain properties
   b) A struct can contain constructors
   c) Both a and b
   d) None of these

4) Which form of inheritance is not supported directly by C# .NET?
   a) Multiple inheritance   b) Multilevel inheritance
   c) Single inheritance   d) Hierarchical inheritance

5) The process of defining two or more methods within same class that have same name but different parameters lists is known as method overriding.
   a) True   b) False

6) _____keyword is used to declare a base class method while performing overriding of base class methods.
   a) this   b) virtual   c) override   d) extend

7) The DataAdapter object is used as an intermediary between the DataSet object and the data provider.
   a) True   b) False

8) _____control is used to select one option from a set of options.
   a) CheckBox   b) GroupBox
   c) RadioButton   d) ComboButton

9) Does C#.NET support partial implementation of interfaces?
   a) True   b) False

10) Select the correct statement about an Exception.
    a) It occurs during loading of program
    b) It occurs during Just-In-Time compilation
    c) It occurs at run time
    d) All of these

11) In event-driven programming an event is generated by _____.
    a) the system   b) user's action
    c) Both a and b   d) none of these

12) Which of the following control is always read-only?
    a) TextBox   b) Label
    c) RichTextBox   d) All of these

13) The method that will be invoked by a delegate at_____.
    a) compile time   b) run time
    c) load time   d) link time

14) Which of the following assemblies can be stored in Global
    Assembly Cache?
    a) Private Assemblies   b) Friend Assemblies
    c) Shared Assemblies   d) Public Assemblies

Q.2 A) Define Data Set. Give its advantages.   **05**
         B) Explain different methods of Thread class.   **05**
         C) Define 1) FileInfo 2) DirectoryInfo   **04**

Q.3 A) Explain the steps to create and deploy an application.   **05**
         B) Explain indexer with suitable example.   **05**
         C) List the features of assemblies.   **04**

Q.4 A) Write a program for implement method overloading.   **05**
         B) What is Delegate? Explain the applications.   **05**
         C) Write note on ref and out parameter.   **04**

Q.5 A) What are Anonymous methods? Explain with suitable example.   **07**
         B) Explain ArrayList collection class with its advantages.   **07**

Q.6 A) Explain architecture of ADO.Net.   **07**
         B) Create a window application to add a new record using stored   **07**
            procedure.

Q.7 **Write short notes on the following (Any two)**   **14**
         1) Run-time polymorphism
         2) Thread Synchronization
         3) CheckBox and RadioButton Control

Seat No.	

B.C.A. (Semester – V) (New) (CGPA) Examination, 2017
LINUX & SHELL PROGRAMMING

Day & Date: Monday, 17-04-2017   Max. Marks: 70
Time: 10.30 AM to 01.00 PM

N.B. :   1) Q.**1** and Q.**7** are **compulsory.**
       2) Attempt **any two** questions from Q. **2, 3** and **4.**
       3) Attempt **any one** question from Q. **5** and **6.**
       4) Figures to the **right** indicate **full** marks.

Q.1 A) Choose correct alternatives: **14**

1) Shell Script cannot run in the background.
   a) True   b) False

2) Which symbol will be used with grep command to match the pattern pat at the end of a line?
   a) ^pat   b) $pat   c) pat$ d) >pat

3) Find out inode number of a file, _____ option used in 'ls' command.
   a) –inum   b) –i   c) –inode   d) –in

4) The /etc/pass wd file doesn't contain _____
   a) User id   b) home directory for a user
   c) login shell name   d) None of the above

5) Which option is used with cmp command to give a detailed list of the byte number and the differing bytes in octal for each character that differs in both the files?
   a) -d   b) -l   c) -b   d) -bc

6) Linux has a /proc directory which shows the current state of kernel.
   a) True   b) False

7) _____command is used with vi editor to move backward to beginning of a word.
   a) w   b) s   c) b   d) e

8) Which is true statement of following about Linux?
   a) Shell is known as command interpreter
   b) Kernel is heart of Linux
   c) Linux use filesystem
   d) All of these

9) Which of the following commands is used to have a two-way communication with any person who is currently logged in?
   a) mail   b) mesg   c) write   d) None of these

10) The command 'chmod 761 file' is equivalent to _____
   a) chmod u=7, g=6, o=1 file   b) chmod a=761 file
   c) chmod ugo=761 file   d) chmod u=rwx, g=rw, o=x file

11) Which is the correct way to use the nice command?
   a) Nice + 5ps   b) nice 5 ps
   c) nice -d ps   d) none of the above

12) _____ tool is used to partition your hard drive.
   a) mkfs   b) fdisk   c) fsck   d) mount

13) Which of the following is the main Apache Configuration file?
   a) /etc/apache.conf   b) /etc/httpd/config
   c) /etc/acf.conf   d) /etc/httpd/conf/httpd/conf

14) What command is used to list the jobs currently in print queues?
   a) lpq   b) lpr   c) lprm   d) lprq

Q.2 A) Explain the architecture of Linux operating system. **05**
B) Explain any five types of files in Linux operating system. **05**
C) Write a note on Insert mode. **04**

Q.3 A) What is Redirection? Explain I/O Redirection with example. **05**
B) How to create and extract files from archive files? **05**
C) Differentiate between Hard-link & Soft-link. **04**

Q.4 A) Explain chown and chgrp with suitable example. **05**
B) Give the use and example of following commands. **05**
   1) uniq   2) cat   3) ping
C) Write a note on mysql configuration. **04**

Q.5 A) Write a shell script to calculate to calculate simple interest. **07**
B) What does the command "grep"? What are the various options with example? **07**

Q.6 A) Explain the job control facilities in Linux and write the commands for each facility. **07**
B) Explain the output of following commands: **07**
   1) sort –t "│" –k 5 emp │ uniq –u
   2) chmod u=rw, g=r file
   3) Cut –d "│" –f 4-6 file > file 1
   4) ls –i
   5) cat >> bca
   6) cp –s stud stud1
   7) find /home –type d –name backup –print

Q.7 **Write short notes on the following (Any two)** **14**
   1) FTP
   2) Types of Linux Partition
   3) Hierarchy of File System

Seat No.	

B.C.A. (Semester – V) (New) (CGPA) Examination, 2017
INTRODUCTION TO DATA MINING AND WAREHOUSING

Day & Date: Wednesday, 19-04-2017   Max. Marks: 70
Time: 10.30 AM to 01.00 PM

N.B. :   1) All questions are **compulsory.**
            4) Figures to the **right** indicate **full** marks.

Q.1   A)   Choose correct alternatives: **14**

1) _____ predicts future trends, patterns & behaviours, allowing top level managers to make decisions.
   a) Metadata   b) Data Mining
   c) Data Marts   d) Data Warehouse

2) Star scheme consists of _____ fact tables.
   a) One   b) Two   c) Three   d) Many

3) Data warehouse contain _____ type of data which are not available in operational environment.
   a) Normalize   b) Denormalize
   c) Summarize   d) Metadata

4) Noisy values can be handled by using _____ technique.
   a) Binning   b) Regression
   c) Clustering   d) All of these

5) Data found in data warehouse is _____
   a) Subject Oriented   b) Time Variant
   c) Integrated   d) All of these

6) Total number of transactions supporting X in T is called as __.
   a) Confidence   b) Support Count
   c) Association   d) None of these

7) The long form of ETL is _____
   a) Extraction Transformation and Loading
   b) Extraction Tool for Loading
   c) Extra Transformation and Loading
   d) Estimated Transformation Loading

8) Two items are totally co related when correlation value is _____
   a) Zero   b) One
   c) Greater than one   d) Less than one

9) _____ of web mining uses the logs of web access.
   a) Web Usage
   b) Web Content
   c) Web Structure
   d) All of these

10) Parallel Processing speed up query processing, data loading and index creation.
   a) True
   b) False

11) Unstructured data such as text document can be mined using _____ technique.
   a) Web Mining
   b) Unstructured Mining
   c) Text Mining
   d) None of these

12) Association Rule mining is predictive data mining technique.
   a) True
   b) False

13) Data with missing values are known as Inconsistent data.
   a) True
   b) False

14) In data reduction, data compression must be lossless compression.
   a) True
   b) False

Q.2   Answer the following:
   a) Explain data visualization and parallel processing in detail.   **07**
   b) Explain difference between operational data processing and analytical   **07**
      data processing.

Q.3   Answer the following:
   a) What is Web Mining? Explain Web Mining in detail.   **07**
   b) Define data ware house and data mining. Explain metadata in detail.   **07**

Q.4   Attempt any one.   14
   a) Explain different techniques used in data reduction and data
      transformation.
   b) Explain Data Mining Functionalities in detail.

Q.5   Attempt any one.   14
   a) What are major issues in Data Mining? Explain each in detail.
   b) What is support and confidence? Explain Apriori property. Explain
      Apriori algorithm in detail. Find strong association from following table.
      (Min_support=2 and min_confidence=70%)

Tr. ID	List of Items
T1	A, C, D
T2	B, C, E
T3	A, B, C, E
T4	B, E

Seat No.	

B.C.A. (Semester – V) (New) (CGPA) Examination, 2017
MANAGEMENT INFORMATION SYSTEM

Day & Date: Friday, 21-04-2017   Max. Marks: 70
Time: 10.30 AM to 01.00 PM

N.B. :   1) Q.**1** and Q.**7** are **compulsory.**
           2) Attempt **any two** questions from Q. **2, 3** and **4.**
           3) Attempt **any one** question from Q. **5** and **6.**
           4) Figures to the **right** indicate **full** marks.

Q.1 A) Choose correct alternatives: **07**
1) Database is pivotal to _____.
    a) MIS   b) EIS
    c) TPS   d) OAS

2) Some of the MIS application in service industry is _____.
    a) Airline   b) Manufacturing
    c) Production   d) None of these

3) Which of the following is not a characteristic of good information system?
    a) Inter changeability   b) Relevance
    c) Cost Effectiveness   d) Timelines

4) Which of the system uses multi dimensional data analysis?
    a) DSS   b) MIS
    c) ESS   d) All of the above

5) Long form of CRM is _____
    a) Cost Reliable Management
    b) Customer Relationship Management
    c) Crime Relationship Management
    d) Customer Redirection Management

6) Which of the following is not a class of information system application?
    a) Database Management System
    b) Decision Support System
    c) Expert System
    d) Management Information System

7) Knowledge based system support _____
    a) Knowledge creation   b) Knowledge support
    c) Knowledge of Dissemination   d) All of the above

Q.1 B) Answer one sentence: 07
1) KMS stands for.
2) BIS stands for.
3) ESS stands for.
4) SMS stands for.
5) SCM stands for.
6) ERP stands for.
7) Example of MIS in service sector.

Q.2 Write a short note (Any two) 14
a) What is meant by organization? Explain features of organization.
b) Explain the role and importance of Information System.
c) Explain the role of Manager in Organization.

Q.3 Write a short note (Any two) 14
a) Define decision making and Explain the decision making life cycle.
b) Define MIS and Explain characteristics of MIS.
c) Define ERP and Explain advantage and disadvantage of ERP.

Q.4 Write a short note (Any two) 14
a) Explain business intelligence system and their benefits.
b) Explain the scope of MIS.
c) Explain the security and control.

Q.5 A) Explain the application of MIS in the service industry. 07
B) Explain the advantage and disadvantage of SCM. 07

Q.6 A) Explain the system vulnerability. 07
B) Explain the features of Executives Information System. 07

Q.7 Write a short note (Any two) 14
a) Explain classification of DSS.
b) Application of MIS in Manufacturing.
c) Explain the CRM.

Seat No.	

B.C.A. (Semester – V) (Old) Examination, 2017
ADVANCED JAVA – I

Day & Date: Tuesday, 11-04-2017   Max. Marks: 80
Time: 10.30 AM to 01.30 PM

N.B. :   1) Q.**1** andQ.**7** are **compulsory.**
            2) Attempt **any two** questions from Q. **2, 3** and **4.**
            3) Attempt **any one** question from Q. **5** and **6.**
            4) Figures to the **right** indicate **full** marks.

Q.1 A) Choose correct alternatives: **10**

1) Which class can handle any type of request so it is protocol-independent?
   a) GenericServlet   b) HttpServlet
   c) Both a and b   d) None of the above

2) Which method is used to perform DML statements in JDBC?
   a) execute()   b) executeQuery()
   c) executeUpdate()   d) executeResult()

3) What is the immediate super class of Applet class?
   a) Object   b) Window   c) Panel   d) Component

4) A development descriptor describes _____.
   a) Web component response settings
   b) Web component settings
   c) Web component request objects
   d) All of the above

5) What tags are mandatory when creating HTML to display and applet?
   a) name, height, width   b) code, name
   c) codebase, height, width   d) code, height, width

6) In HTTP Request _____ method is secured because data is not append in URL.
   a) GET   b) POST   c) Both a and b   d) PUT

7) In Session tracking which method is used in a bit of information that is sent by a web server to a browser and which can later be read back from that browser?
   a) HttpSession   b) URL rewriting
   c) Cookies   d) Hidden form fields

8) Which driver is called as Network protocol driver in JDBC?
   a) Type-4 driver   b) Type-1 driver
   c) Type-3 driver   d) Type-2 driver

9) AppletViewer tool is available in which of the folder of JDK.
   a) bin   b) lib   c) classes   d) source

10) Which character is used to represent an input parameter in a CallableStatement?
   a) %   b) #   c) *   d) ?

Q.1 B) State True or False: **06**
1) Servlet handles multiple simultaneous requests by using threads.
2) The JDBC-ODBC Bridge supports multiple concurrent open statements per Connection.
3) XML is case sensitive.
4) The life cycle of a servlet is managed by servletContext.
5) Start() method is used to start the Applet.
6) XML stands for extensible Multiple Language.

Q.2 a) Explain servlet life cycle with suitable example.   **06**
b) Write a program to design an applet to show Addition of two no. (take no. from textbox and display addition into another textbook).   **06**
c) What is JDBC? Explain steps in JDBC.   **04**

Q.3 a) What is XML and explain XML syntax and it's rules.   **06**
b) Write a program to insert employee records (empid, empname, address, occupation) into employee table (use oracle database).   **06**
c) Explain HTML Tag in Applet.   **04**

Q.4 a) Explain the Architecture of JDBC.   **06**
b) Write a servlet to that demonstrate use of 'servletContext object'.   **06**
c) Explain the XML declaration.   **04**

Q.5 a) Explain types of Statements in JDBC with suitable example.   **08**
b) Write a servlet to that demonstrate use of 'cookies'.   **08**

Q.6 a) What is session and explain any two session tracking technique in servlet.   **08**
b) Explain difference between include() and forward() method of RequestDispatcher interface with suitable example.   **08**

Q.7 Write short notes on followings. (Any four)   **16**
a) XML Tags
b) Advantages and disadvantages of Type-4 driver
c) Component of JDBC
d) Applet skeleton
e) XML Validation

Seat No.	

B.C.A. (Semester – V) (Old) Examination, 2017
VISUAL PROGRAMMING

Day & Date: Thursday, 13-04-2017   Max. Marks: 80
Time: 10.30 AM to 01.30 PM

N.B. :   1) Q.**1** and Q.**7** are **compulsory.**
            2) Attempt **any two** questions from Q. **2, 3** and **4.**
            3) Attempt **any one** question from Q. **5** and **6.**

Q.1 A) Choose correct alternatives: **16**

1) Which of the following is the correct way to find out the number of elements currently present in an ArrayList Collection called arr?
   a) arr.Count   b) arr.Capacity
   c) arr.UpperBound   d) arr.Length

2) Which property determines whether a control is displayed to the user?
   a) Hide   b) Show   c) Visible   d) Enabled

3) In C# variables are categorized into _____.
   a) Value Types   b) Reference Types
   c) Both a and b   d) All of these

4) An interface can contain declaration of _____
   a) Methods   b) Events   c) Indexers   d) All of these

5) The Tick event is found only in ____object.
   a) Button   b) Label   c) Timer   d) TextBox

6) In a HashTable, Key cannot be null, but Value can be null.
   a) True   b) False

7) Which of the following is NOT a .NET Exception class?
   a) StackMemoryException
   b) DivideByZeroException
   c) OutOfMemoryException
   d) IndexOutOfRangeException

8) Which of the following is not a C# keyword?
   a) private   b) delegate   c) implements   d) event

9) _____assemblies can be stored in Global Assembly Cache.
   a) Private Assemblies   b) Shared Assemblies
   c) Public Assemblies   d) Protected Assemblies

10) Default access specifier for class is _____.
   a) public   b) internal   c) protected   d) none of these

11) Static constructors does not have any access modifiers.
   a) True   b) False

12) Which of the following class is not related to the System.IO namespace?
   a) StreamReader   b) StreamWriter
   c) StreamFile   d) StringReader

13) JVM compiler of .Net compiles MSIL into native code.
   a) True   b) False

14) _____method terminates the execution of thread.
   a) Start()   b) Suspend()   c) Sleep()   d) Abort()

15) Delegates may be defined at _____
   a) inside a class   b) outside of classes
   c) Both a & b   d) None of these

16) Which of the following is the root of the .NET type hierarchy?
   a) System.Object   b) System.Type
   c) System.Base   d) System.Parent

Q.2 A) Write a program to demonstrate multithreading.   **06**
     B) What is DataSet? Explain with its advantages.   **06**
     C) Differentiate Array and ArrayList class.   **04**

Q.3 A) What is a window service? Explain its advantages.   **06**
     B) What is ADO.Net? Explain in detail.   **06**
     C) Give the differences between struct and class.   **04**

Q.4 A) Explain assemblies with features.   **06**
     B) Explain StreamReader and StreamWriter classes.   **06**
     C) Write note on operator overloading.   **04**

Q.5 A) Explain the term: **08**
       1) Label   2) TextBox   3) CheckBox   4) RadioButton
     B) What is event? Explain with suitable example.   **08**

Q.6 A) Create a window application to insert a new record in student   **08**
       table using stored procedure.
     B) What is generic class? Explain with different examples.   **08**

Q.7 **Write short notes on the following (Any four)**   **16**
     1) Static constructor
     2) Boxing and Unboxing
     3) Anonymous method
     4) SDI and MDI
     5) CTS

Seat No.

B.C.A. (Semester – V) (Old) Examination, 2017
LINUX AND SHELL PROGRAMMING

Day & Date: Monday, 17-04-2017   Max. Marks: 80
Time: 10.30 AM to 01.30 PM

> **N.B. :**   1) Q.**1** and Q.**7** are **compulsory**.
>   2) Attempt **any two** questions from Q. **2, 3** and **4**.
>   3) Attempt **any one** question from Q. **5** and **6**.
>   4) Figures to the **right** indicate **full** marks.

Q.1 A) Choose correct alternatives: **16**

1) Which among the following component directly interacts with system hardware?
a) Shell   b) Commands   c) Kernel   d) Applications

2) Which command is used to copy all files having the string chap and any two characters after that to the progs directory?
a) cp chap ?? Progs   b) cp chap* progs
c) cp chap [12] /progs/*.*   d) cp chap ?? /progs/*

3) Which command is used to display all the files including hidden files in your current and its subdirectories?
a) ls-aR   b) ls-a   c) ls-R   d) ls-l

4) Which of the following commands will allow the user to search contents of a file for a particular pattern?
a) touch   b) grep   c) find   d) ls

5) Which command gives the first byte where the difference is in the file 1 & file 2?
a) diff   b) comm   c) cmp   d) ls-c

6) The printer is found in the _____ directory.
a) /etc   b) /dev   c) /lib   d) /printer

7) _____command is used with vi editor to replace text from cursor to right.
a) S   b) s   c) R   d) r

8) In Linux everything stored as a _____
a) file   b) directory
c) executables   d) None of the above

9) Which file contains the file systems to be automatically mounted during boot?
a) /etc/mount
b) /etc/fstab
c) /etc/inittab
d) /etc/boot

10) What command is used with file named 'letter' to remove the executable permission from the user and assign read permission to the group and others?
a) chmod go + x, u - x letter
b) chmod g - x, uo + r letter
c) chmod go + r, u + x letter
d) chmod u - x, go + r letter

11) The wild card character which matches a string of characters is _____
a) $
b) <
c) ?
d) *

12) _____tool is used to check and repair Linux file systems.
a) mkfs
b) fdisk
c) fsck
d) mount

13) Which file contains the name servers to be used by the local machine for hostname resolution?
a) /etc/services/
b) /etc/hosts
c) /etc/resolv.conf
d) /etc/network/interface

14) Which operator is used in shell script for greater than or equal?
a) –ge
b) >=
c) gte
d) >gte

15) Which of the following command is used to access the network in unsecured way?
a) ssh
b) telnet
c) tail
d) grep

16) File Manager is supported by _____
a) GNOME
b) KDE
c) Both a and b
d) None

Q.2 A) Explain the procedure to create the partitions of Linux. **06**
B) Explain foreground and background jobs with its advantages. **06**
C) Write a note on ex mode. **04**

Q.3 A) Explain find command with suitable example. **06**
B) How to create and extract files from archive files. **06**
C) What is shell? Explain different types of shell. **04**

Q.4 A) Differentiate chown and chgrp with suitable example. **06**
B) Give the syntax and example of following commands. **06**
   1) cp   2) rm   3) mv
C) Write a note on x-window system. **04**

Q.5 A) Write a shell script to display prime numbers from 500 to 1000. **08**
B) Explain the term: 1) LVM   2) rsh   3) ping **08**

Q.6 A) What is the architecture Linux? Explain different features of Linux Operating System. **08**
B) Write a menu driver shell script to do the following operations. **08**
    1) create hard link a file from bca file
    2) To Remove a Write & Read permission of a owner
    3) To display non repeated records from file bca
    4) To cp a file

Q.7 **Write short notes on the following (Any four)** **16**
    1) GNOME
    2) Super Block
    3) lpr and lpq command
    4) LDAP
    5) GRUB

Seat No.	

B.C.A. (Semester – V) (Old) Examination, 2017
INTRODUCTION TO DATA MINING AND WAREHOUSING

Day & Date: Wednesday, 19-04-2017   Max. Marks: 80
Time: 10.30 AM to 01.30 PM

N.B. : 1) Q.**1** and Q.**7** are **compulsory.**
2) Attempt **any two** questions from Q. **2, 3** and **4.**
3) Attempt **any one** question from Q. **5** and **6.**
4) Figures to the **right** indicate **full** marks.

Q.1 A) Choose correct alternatives: **16**

1) The goal of star schema design is to simplify _____.
   a) Logical data model   b) Physical data model
   c) Conceptual data model   d) None of these

2) Change data capture is one of the challenging technical issues in _____
   a) Data Extraction   b) Data Loading
   c) Data Transformation   d) Data Cleansing

3) The input to the data warehouse can come from OLTP or transactional system but not from other third party database.
   a) True   b) False

4) Normalization effects performance.
   a) True   b) False

5) Collapsing tables can be done on the _____relationship.
   a) One-to-One   b) Many-to-Many
   c) Both a and b   d) None of these

6) Data warehouse is about taking/collecting data from different _____sources.
   a) Harmonized   b) Identical
   c) Homogeneous   d) Heterogeneous

7) _____is class of Decision Support Environment.
   a) OLTP   b) OLAP   c) DBMS   d) Network

8) D-normalization speeds up _____.
   a) Data retrieval   b) Data duplication
   c) Data extraction   d) Data loading

9) The fact table is a way of visualizing as an _____cube.
   a) Rolled Up   b) Un-rolled
   c) Rolled Down   d) None of these

10) Full and incremental Extraction are the types of ___Extraction.
   a) Logical   b) Physical   c) Both a and b   d) None of these

11) Selectivity is low in _____environment.
   a) Data Warehouse   b) DBMS
   c) OLTP   d) None of these

12) The input to the data warehouse can come from OLAP or Analytical system.
   a) True   b) False

13) Data mining evolves as mechanism to cater the limitations of _____systems to deal massive data sets with high dimensionality, multiple heterogeneous data recourses etc.
   a) OLTP   b) OLAP   c) DSS   d) DWH

14) For a DWH project, the key requirements are _____and product experience.
   a) Tools   b) Industry
   c) Software   d) None of these

15) DSS queries do not involve a primary key.
   a) True   b) False

16) Multidimensional database typically use proprietary _____format to store pre-summarized cube structures.
   a) File   b) Application
   c) Aggregate   d) Database

Q.2 A) What are the strategies for data transformation? Explain. **06**
B) Explain Data mining Task Primitives. **06**
C) What are Parallel Processing Hardware Options and Software implementations? **04**

Q.3 A) Explain Market Basket Analysis with example. **06**
B) What are the applications of data mining? Explain. **06**
C) Explain the basic procedure of principal component analysis. **04**

Q.4 A) Compare OLTP and OLAP. **06**
B) Explain data mining problems for different types of data. **06**
C) Note on Data Fusion. **04**

Q.5 A) In real-world data, tuples with missing values for some attributes are a common occurrence. Describe various methods for handling this problem. **08**
B) What are different types of data that need to be integrated in data warehouse to support decision making? **08**

Q.6 A) Explain Association Rule Mining in detail. **08**
B) Explain three-tier data warehousing architecture. **08**

Q.7 **Write short notes on the following (Any four)** **16**
1) Snowflake schema
2) Need of data warehouse
3) Advanced Visualization Techniques
4) OLAP Tools
5) Database Data
6) Data reduction

Seat No.	

B.C.A. (Semester – V) (Old) Examination, 2017
MANAGEMENT INFORMATION SYSTEM

Day & Date: Friday, 21-04-2017   Max. Marks: 80
Time: 10.30 AM to 01.30 PM

N.B. :   1) Q.*1* and Q.*7* are **compulsory**.
            2) Attempt **any two** questions from Q. *2, 3* and *4*.
            3) Attempt **any one** question from Q. *5* and *6*.

Q.1 A) Fill in the blanks: 06
1) CRM stand for _____.
2) The _____ decision is based on the rules & decision making are pre-determined.
3) A ____ is a determined course of action to be taken in future.
4) _____ is a used to collect of data store & process data to present information to a manager.
5) KMS short form of _____.
6) A _____ is the choice out of several option made by a decision maker to achieve some objectives in a given situation.

Q.1 B) Choose correct alternatives: 06
1) _____ is the component of information system.
  a) Hardware   b) Product
  c) Customer service   d) Manufacture

2) _____ is a back bone of an organization.
  a) Data   b) User   c) People   d) Information

3) AI stands for _____
  a) Art information   b) Artificial Intelligence
  c) Access information   d) Annual Income

4) _____ is the close linkage of activities involved in buying, making & moving the product.
  a) SMS   b) SSM   c) MIS   d) SCM

5) Enterprise system supports _____.
  a) Manufacturing Process   b) Financial & Accounting
  c) Human Resource Process   d) All of the above

6) Long form of ESS _____
   a) Executive Support System
   b) Executive Standard System
   c) Executive Short System
   d) Executive Status System

Q.1 C) State whether True or False: **04**
   1) A decision which can be made by using a rule or a model is the non-programmable decision.
   2) Artificial Intelligence focus on decision support to specific business problem.
   3) ERP package can handle entire range of business.
   4) DSS support decision making act of level.

Q.2 A) Write down security of an information system.   **06**
       B) Write down the steps of decision making.   **06**
       C) Write down the meaning and needs of CRM.   **04**

Q.3 Write a short notes on:
       A) Decision support system and its benefit.   **06**
       B) Nature and scope of MIS.   **06**
       C) Concept of data and information.   **04**

Q.4 A) Write down the features of Organizations.   **06**
       B) Write down characteristics of computerized MIS.   **06**
       C) Write down the benefits of BIS.   **04**

Q.5 A) What is difference between manufacturing management and service management?   **08**
       B) What are the advantages of ERP?   **08**

Q.6 A) Explain the objective and characteristics of MIS.   **08**
       B) Explain application in Hotel Management System.   **08**

Q.7 Write a short notes on (Any four)   **16**
   1) Components of DSS
   2) System vulnerability
   3) MIS development process
   4) Concept of system
   5) Process of SCM

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B.C.A. (Semester – VI) (New) (CGPA) Examination, 2017
ADVANCED JAVA – II

Day & Date: Wednesday, 12-04-2017   Max. Marks: 70
Time: 10.30 AM to 01.00 PM

N.B. :   1) Q.**1** and Q.**7** are **compulsory**.
       2) Attempt **any two** questions from Q. **2, 3** and **4**.
       3) Attempt **any one** question from Q. **5** and **6**.
       4) Figures to the **right** indicate **full** marks.

Q.1 A) Choose correct alternatives: **06**

1) What does "<generator class="native" />" means?
   a) generate primary key
   b) generate tables based on configuration
   c) generate sql statement on configuration
   d) None of these

2) What are different types of Bean injection in spring?
   a) Constructor   b) Setter
   c) Setter and getter   d) Both a and b

3) All the HB annotations are defined in the _____ package.
   a) org.hibernate.*;   b) org.hibernate. annotation;
   c) javax.persistence.*;   d) javax.annotation.*;

4) Which technology is used to create web application just like Servlet technology?
   a) Internationalization   b) JSP
   c) Applet   d) Hibernate

5) Which tag is used for creating a simple data source suitable only for prototyping?
   a) sql:setDataSource   b) sql:param
   c) sql:transaction   d) sql:getDataSource

6) In Spring JDBCTemplate which interface can be used to fetch records from the database?
   a) PreparedStatement   b) RowMapper
   c) ResultSetExtractor   d) JDBCData

Q.1 B) State whether True or False: 04
    1) In JSP session object is used to get initialization parameter from the web.xml
    2) The <constructor-arg> sub-element of <**bean**> is used for constructor injection.
    3) The <foreign-key> sub element of <joined-subclass> is used to generate the foreign key in the subclass mapped table.
    4) WAP stands for Wireless Application Program.

Q.1 C) Fill in the blanks: 04
    1) The _____ sub-element of <bean> is used for setter injection.
    2) The _____ JSTL core tag removes the variable from either a first scope or a specified scope.
    3) In spring, AOP stands for _____
    4) _____ is also abbreviated as I18N.

Q.2 Write answer of the following questions (Any two) 14
    A) Explain JSTL Core Tags with suitable example.
    B) List out Advantages of Hibernate.
    C) Write a program to demonstrate that implementation of setter injection in spring.

Q.3 Write answer of the following questions (Any two) 14
    A) Write a program that use of any 3 implicit objects in JSP.
    B) Explain Architecture of WAP.
    C) Explain PreparedStatement interface of JDBCTemplate in spring.

Q.4 Write answer of the following questions (Any two) 14
    A) Explain Hibernate Architecture.
    B) Write a program to demonstrate use of <jsp:useBean> tag in JSP.
    C) Explain advantage and disadvantages of WAP.

Q.5 A) Write a program to store student's information such as rollno, name, contact_no, etc. using JSTL SQL Tags. 07
    B) What is JSP? Explain different types of Tag Elements. 07

Q.6 A) Explain Tablet Per Subclass inheritance Mapping with suitable example. 07
    B) Write a program to display employee records such as eid, name, salary, etc. using ResultSetExactor interface of SpringJDBCTemplate. 07

Q.7 Write short notes on (Any Two) 14
    1) JSP Life Cycle
    2) TPH using Annotation
    3) Spring core container

Seat No.	

B.C.A. (Semester – VI) (New) (CGPA) Examination, 2017
CYBER LAWS AND SECURITY CONTROL

Day & Date: Saturday, 15-04-2017   Max. Marks: 70
Time: 10.30 AM to 01.00 PM

N.B. :   1) Q.**1** and Q.**7** are **compulsory**.
              2) Attempt **any two** questions from Q. **2, 3** and **4**.
              3) Attempt **any one** question from Q. **5** and **6**.
              4) Figures to the **right** indicate **full** marks.

Q.1 A) Choose correct alternatives: **07**

1) _____is exchange of document in standard electronic form between organizations in an automatic manner.
   a) E-Commerce   b) EDI
   c) Both a and b   d) None of these

2) _____is the right to prevent other from copying all the work in which copyright subsists.
   a) Law   b) Copyright
   c) Right   d) None of these

3) _____key is used to symmetric key cryptography.
   a) Public   b) Private
   c) Both a and b   d) None of these

4) Information Technology Act in India was amended in ____
   a) 2000   b) 2004
   c) 2008   d) 2010

5) _____is the right over creation of the mind, both artistic & commercial.
   a) Intellectual property right   b) Copyright
   c) Patent   d) Trademark

6) Which of the following comes under Cycle Crime?
   a) Intellectual property   b) Pornography
   c) Online gambling   d) All of above

7) IT Act 2000 made amendment on which of the following existing laws?
   a) IPC   b) Indian Evidence Act
   c) Banker Book Evident Act   d) All of above

Q.1 B) Answer in one sentence: 07
1) What is mean by E-Commerce?
2) What is IT Act?
3) What is mean by Copyright?
4) What is Cyber Law?
5) What is Model Law?
6) What is Authentication?
7) What is E-Market?

Q.2 A) Explain security aspect in cyber law. 07
B) Explain theft of information in detail. 07

Q.3 A) Explain advantages & disadvantages of E-Commerce. 07
B) Explain Digital Signature with diagram. 07

Q.4 A) Explain IT Act 2000 in detail. 07
B) Explain criminal aspect & contractual aspect in detail. 07

Q.5 A) Explain types of security. 07
B) Write down difference between Authentication & Authorization. 07

Q.6 A) Explain Backup strategies. 07
B) Explain UNCITRAL scope & objectives. 07

Q.7 Write short notes:
1) Backup 04
2) E-Commerce Application 04
3) Duties of Subscribers 04
4) Cyber Crime 02

Seat No.	

B.C.A. (Semester – VI) (New) (CGPA) Examination, 2017
SOFTWARE PROJECT MANAGEMENT

Day & Date: Tuesday, 18-04-2017 　　　　　　　　　　　Max. Marks: 70
Time: 10.30 AM to 01.00 PM

N.B. : 　1) Q.**1** and Q.**7** are **compulsory**.
　　　　　2) Attempt **any two** questions from Q. **2, 3** and **4**.
　　　　　3) Attempt **any one** question from Q. **5** and **6**.
　　　　　4) Figures to the **right** indicate **full** marks.

Q.1 A) Choose correct alternatives: 　　　　　　　　　　　　　　　07
　　　1) The return on investment (ROI), also known as ____.
　　　　a) Accounting rate of return 　　　b) Accounting return
　　　　c) Audit rate of return 　　　　　　d) Back investment

　　　2) _____has overall responsibility for setting, monitoring and modifying objectives.
　　　　a) Project steering committee 　　b) Designer
　　　　c) Developer 　　　　　　　　　　　d) Analyst

　　　3) DSDM stands for _____.
　　　　a) Dynamic Study Development Method
　　　　b) Diamond System Development Method
　　　　c) Dynamic System Development Method
　　　　d) Dynamic System Deployed Method

　　　4) The collection of projects that an organization undertaken within a particular planning cycle is sometimes referred to as a _____.
　　　　a) Portfolio 　b) Document file 　c) Plan file 　d) Project file

　　　5) _____model is also known as once-through model.
　　　　a) V-Process 　　　　　　　　　　b) Rapid Application Mode
　　　　c) Waterfall 　　　　　　　　　　 d) Both a and b

　　　6) _____is the simplest and oldest techniques for tracking project progress.
　　　　a) Slip Chart 　b) Gantt Chart 　c) Flow Chart 　d) Ball Chart

　　　7) Which of the following is/are considered stakeholder in the software process?
　　　　a) Customer
　　　　b) Internal to the project team
　　　　c) External to the project team
　　　　d) All of the above

Q.1 **B)** **State True or False:** 07
1) The payback period is the time taken to break even or pay back the initial investment.
2) Software quality assurance is an umbrella activity.
3) Software project planning is task, it is performed before the production of software actually starts.
4) PERT stands for Program Entry and Review Technique.
5) Quality planning is the process of developing a quality plan for project.
6) CPM stands for clean path method.
7) The forward pass is carried out to calculate the earliest dates on which each activity may be started and completed.

Q.2 A) What is cash flow forecasting? 07
B) Where are estimates done of software project? 07

Q.3 A) Explain the Plans, Methods and Methodologies. 07
B) Explain the spiral model in details. 07

Q.4 A) Explain setting objectives and goals of project. 07
B) Explain the risk planning in details. 07

Q.5 A) Explain the step wise project planning in details. 07
B) Explain the COCOMO model in details. 07

Q.6 A) What are the activities covered by Software Project Management? 07
B) What is incremental delivery approach of project? Explain with advantages and disadvantages. 07

Q.7 **Write short notes on (Any four)** 14
1) Grant Chart
2) Software Quality Measures
3) Leadership
4) V-Process Model
5) The forward pass and backward pass

Seat No.	

B.C.A. (Semester – VI) (New) (CGPA) Examination, 2017
WEB TECHNOLOGY - III

Day & Date: Thursday, 20-04-2017   Max. Marks: 70
Time: 10.30 AM to 01.00 PM

N.B. :   1) All questions are **compulsory.**
                4) Figures to the **right** indicate **full** marks.

Q.1   A)   Choose correct alternatives: **14**

1) In _____state management technique, data is included in URLs?
   a) Session   b) View
   c) Cookies   d) Query String

2) _____is not authentication type in ASP.NET.
   a) Windows   b) Login
   c) Passport   d) Form

3) _____configuration file stores website setting such as connection string or authentication cardinals.
   a) Web.config   b) App.Config
   c) Machine.Config   c) Global.Config

4) _____event is used to assign master page at runtime.
   a) Page_ Load   b) Page_ PreInit
   c) Page_ Render   d) Page_ Click

5) Global.asax file is used to store _____.
   a) Session and Application Information
   b) Theme Information
   c) Configuration Information
   d) All of these

6) _____is used to store personalization information.
   a) Profile.Store()   b) Profile.Save()
   c) Personalize.Store()   d) Personalize.Save()

7) Default event for BulletedList control is _____
   a) SelectedIndexChanged   b) SelectedValueChanged
   c) SelectedItemChanged   d) SelectedItemClick

8) _____location stores website at local or remote web server.
   a) File System   b) FTP
   c) HTTP   d) Web Server

9) _____validation control is used to validate mobile number.
   a) RegularExpression   b) Range
   c) Custom   d) Compare

10) Default value for ActiveViewIndex property for MultiView Control is -1.
   a) True   b) False

11) _____property of CheckBox control is used to check whether checkbox is true or not.
   a) True   b) Checked
   c) States   d) Check

12) Default value for Trace attribute of Page directive is True.
   a) True   b) False

13) _____property of TextBox control make TextBox non editable/ editable.
   a) Edit   b) Visible
   c) SelectionMode   d) ReadOnly

14) Every master page must contain <asp:Content> tag.
   a) True   b) False

Q.2   Answer the following:
   a) Explain Web.config and Machine.config files in detail.   **07**
   b) Explain different application folders used in ASP.Net.   **07**

Q.3   Answer the following:
   a) What is personalization? Explain personalization properties with example.   **07**
   b) What is cookies? Explain how to read and write cookies with example.   **07**

Q.4   Attempt any one.   **14**
   a) Explain with example.
      1) Adrotator Control
      2) Login control group
   b) What is Validation? What are different types of validation? Explain all validation control with example.

Q.5   Attempt any one.   **14**
   a) Explain following terms.
      1) Themes and Skins
      2) Silverlight
   b) Explain with example.
      1) AJAX Extension group
      2) Wizard control

Seat No.	

B.C.A. (Semester – VI) (Old) Examination, 2017
ADVANCED JAVA – II

Day & Date: Wednesday, 12-04-2017   Max. Marks: 80
Time: 10.30 AM to 01.30 PM

N.B. : 1) Q.**1** and Q.**7** are **compulsory.**
           2) Attempt **any two** questions from Q. **2, 3** and **4.**
           3) Attempt **any one** question from Q. **5** and **6.**
           4) Figures to the **right** indicate **full** marks.

Q.1 A) Choose correct alternatives: **08**

1) AJSP page consists of which tags?
   a) HTML tags   b) JSP tags
   c) Both a and b   d) None of the above

2) Which tag is used to execute java source code in JSP?
   a) Declaration tag   b) Scriptlet tag
   c) Expression tag   d) None of these

3) The JSP include directive is used to include the contents of any resource it may be?
   a) JSP file   b) HTML file
   c) Text file   d) All mentioned above

4) Hibernate is an?
   a) Open Source   b) Lightweight   c) ORM   d) All of these

5) Which of the following is not a core component of Hibernate?
   a) Transaction   b) Provider   c) Criteria   d) Query

6) Which of the following element is used to represent one-to-one relationship in hibernate?
   a) <many-to-one>   b) <many-one>
   c) <ManyToOne>   d) None of the above

7) What is the scope of stateless bean?
   a) global-session   b) singleton
   c) prototype   d) request

8) What types of Dependency injection does spring supports?
   a) Constructor based, Setter based
   b) Constructor based, Setter based, Getter Based
   c) Setter based, Getter based, Properties based
   d) Constructor based, Setter based, Properties based

Q.1 B) Fill in the blanks: 04
1) How many implicit objects are used in JSP _____.
2) _____method is used to re-read the state of the given instance from the underlying database.
3) The long form of the term ORM is _____.
4) _____helps in gluing the classes together and same time keeping them independent.

Q.1 C) State True/False: 04
1) Hibernate framework simplifies the development of java application to interact with the database?
2) Is query level caching mandatory in hibernate?
3) The Session Factory is heavyweight object.
4) JSP's provide better facilities for separation of page code and template data by mean of Java beans, EJBs and custom tag libraries?

Q.2 A) Explain the different types of implicit objects used in JSP. 08
B) Explain the architecture of hibernate with its elements. 08

Q.3 A) What are the features of WAP? 08
B) Explain dependency injection in spring with example. 08

Q.4 A) Write a program to demonstrate jsp:useBean action tag. 08
B) Explain the architecture of WAP. 08

Q.5 A) Explain the different types of interfaces used for custom tags in JSP. 08
B) Write a JDBC program in spring to insert employee data using prepared statement. 08

Q.6 A) Explain Table per hierarchy (TPH) inheritance mapping with example. 08
B) Write a program to implement mapping list in collection mapping using xml file. 08

Q.7 Write short notes on (Any Four) 16
1) Resultset Extracter in spring
2) Applications of Hibernate
3) Advantages of JSP over Servlet
4) Applications of WAP with JSP
5) JSTL core tags

Seat No.

B.C.A. (Semester – VI) (Old) Examination, 2017
CYBER LAWS AND SECURITY CONTROL

Day & Date: Saturday, 15-04-2017   Max. Marks: 80

Time: 10.30 AM to 01.30 PM

N.B. :   1) Q.**1** and Q.**7** are **compulsory**.
         2) Attempt **any two** questions from Q. **2, 3** and **4**.
         3) Attempt **any one** question from Q. **5** and **6**.
         4) Figures to the **right** indicate **full** marks.

Q.1 A) Choose correct alternatives: **16**

1) E-commerce scope is _____.
   a) Local   b) Global   c) National   d) Regional

2) _____is a virtual representation of Physical Market.
   a) E-Marketing   b) E-goverence
   c) EDI   d) Mobile Commerce

3) Ethics was invented by _____.
   a) Immanuel Kant   b) Thomas
   c) Rodircs   d) Ritchie

4) _____is a exact copy of a program in seconds.
   a) Software Piracy   b) Hardware Piracy
   c) Ethics   d) Information

5) Cyber Law is contained in _____.
   a) IT Act, 2000   b) Negotiable Instrument Act
   c) Power of Attorney   d) Code of Ethics

6) _____is a program which is offered at no cost.
   a) Freeware   b) Saveware   c) Copyright   d) Preware

7) _____includes data, text, images, sound, voice, codes computer program, software & databases.
   a) Data   b) Information   c) Function   d) Process

8) _____means authentication of any electronic record by a subscriber by means of electronic Method.
   a) Addressee   b) Access
   c) E-commerce   d) Digital Signature

9) ____is a contract between the purchaser and publisher of the software.
   a) License   b) Copy right   c) Cyber Law   d) IT Act

10) Intellectual property rights are related with _____.
   a) Copyright   b) Software with licence
   c) Digital signature   d) None of these

11) When a software is pirated, it harms _____.
   a) Management   b) Operator
   c) People   d) Software Developers

12) _____helps to ensure privacy it also helps in protecting individual data.
   a) Data Security   b) Network Security
   c) Physical Security   d) Logical Security

B) State True or False: **04**
   1) Software piracy is a victimless crime.
   2) Bugs mean software error.
   3) Electronic gazette means financial gazette.
   4) Cyber Law is mainly highlighted for copyright protection in cyber world.

Q.2 A) Write down Information of legal Practices.   **06**
   B) Write down difference between Traditional Commerce & E-Commerce.   **06**
   C) Short note on Data encryption.   **04**

Q.3 A) Explain the Information Society.   **06**
   B) Explain Hardware & Software security.   **06**
   C) Write a short note Security Audit.   **04**

Q.4 A) Describe Moral, Ethics and Law and Cyber law.   **06**
   B) Explain the scope of E-Commerce.   **06**
   C) Short note on Cyber Crime.   **04**

Q.5 A) What is Cyber Law? Explain the Theft of Information.   **08**
   B) Write down Information Technology Act 2000.   **08**

Q.6 A) Explain the advantage & disadvantages of E-Commerce.   **08**
   B) What is Model Law? Explain the UNCITRAL objectives & scope.   **08**

Q.7 **Write short notes on the following. (Any four)**   **16**
   1) Electronic Record
   2) Intellectual Property Aspects
   3) Security
   4) E-Commerce Application
   5) Duties of Subscribers

Seat No.

B.C.A. (Semester – VI) (Old) Examination, 2017
SOFTWARE PROJECT MANAGEMENT

Day & Date: Tuesday, 18-04-2017   Max. Marks: 80
Time: 10.30 AM to 01.30 PM

N.B. : 1) Q.**1** and Q.**7** are **compulsory.**
　　　　2) Attempt **any two** questions from Q. **2, 3** and **4.**
　　　　3) Attempt **any one** question from Q. **5** and **6.**
　　　　4) Figures to the **right** indicate **full** marks.

Q.1　A)　Choose correct alternatives:　　　　　　　　　　　　　　**16**
　　　1) A plan is necessary to _____.
　　　　a) Organize the work　　　　b) Define the scope of work
　　　　c) Mobilize resources　　　　d) All of the above

　　　2) Project is a planned activity.
　　　　a) True　　　　　　　　　　b) False

　　　3) The products handed over to the clients at the end of projects
　　　　are called as _____
　　　　a) Software　　　　　　　　b) Application program
　　　　c) Deliverable　　　　　　　d) Intermediate products

　　　4) The time between start and end of a task are _____
　　　　a) Turnaround　　　　　　　b) Elapsed
　　　　c) Throughput　　　　　　　d) Pessimistic time

　　　5) The first phase of waterfall mode is User requirements.
　　　　a) True　　　　　　　　　　b) False

　　　6) The standard way of evaluating the economic benefits of any
　　　　projects is to carry out a _____
　　　　a) Price benefit analysis　　b) Cash flow analysis
　　　　c) Cost benefit analysis　　d) Fund flow analysis

　　　7) The time taken to break even or pay back the initial
　　　　investment is called _____.
　　　　a) Back period　　　　　　　b) Payback period
　　　　c) Cash back period　　　　　d) Rate of return

　　　8) Risk management consists of _____.
　　　　a) Risk analysis and risk estimation
　　　　b) Risk control and risk planning
　　　　c) Risk identification and monitoring
　　　　d) Risk control, planning, identification and monitoring

9) The working model of one or more aspects of the projected system is __
   a) Evolutionary model
   b) V-process model
   c) Spiral model
   d) Software prototyping

10) The main goal of quality assurance is to _____
   a) Set coding standards
   b) Improve software project management
   c) Reduce the technical and programming risks in developing the software
   d) Specify corrective actions

11) _____relates to the effort needed to make changes to the software.
   a) Functionality
   b) Maintainability
   c) Reliability
   d) Efficiency

12) _____is classified into Functional and Non-functional.
   a) Project
   b) Requirements
   c) Start date
   d) Risk

10) _____is the method of recording and displaying the way in which targets have changed throughout the duration of the project.
   a) Gantt chart
   b) Bar chart
   c) Timeline
   d) Schedule

11) Cash flow forecast will indicate when expenditure and income will take place.
   a) True
   b) False

12) Size/effort = _____
   a) process rate
   b) productivity rate
   c) project rate
   d) property rate

13) LOC means _____
   a) Lines of code
   b) List of code
   c) Length of code
   d) Legend of code

Q.2 A) Explain main risk factors which may be encountered in the development of software. **06**

B) Explain V-process model. **06**

C) Write a note on strategic assessment. **04**

Q.3 A) Explain the advantages and disadvantages of Lines of code (LOC) and function point counts (FPC) metrics for measuring system. **06**

B) What is critical path? Explain the significance of critical path. **06**

C) Write note on requirement specification. **04**

Q.4 A) Explain cash flow forecasting. **06**

B) List and explain the objectives of activity planning. **06**

C) Write short note on bottom-up estimating. **04**

Q.5 A) Explain different levels of CMM. **08**

B) Explain the different stages in contract management in detail. **08**

Q.6 A) Explain the term. **08**
1) Organizational Behavior
2) Organizational Structure

B) Explain prototyping with its advantages in detail. **08**

Q.7 **Write short notes on the following (Any four)** **16**
1) Objectives for software developers
2) Product Breakdown Structure (PBS)
3) Cost schedules
4) Importance of software quality
5) Timeline chart

Seat No.	

B.C.A. (Semester – VI) (Old) Examination, 2017
WEB TECHNOLOGY-III

Day & Date: Thursday, 20-04-2017   Max. Marks: 80
Time: 10.30 AM to 01.30 PM

N.B. :   1) Q.**1** and Q.**7** are **compulsory.**
   2) Attempt **any two** questions from Q. **2, 3** and **4.**
   3) Attempt **any one** question from Q. **5** and **6.**

Q.1 A) Choose correct alternatives: **16**
   1) Extension of web service file crated in .NET Framework is __.
      a) asmx   b) aspx   c) ascx   d) aswx

   2) _____control can be used to update only the portion of the page.
      a) UpdateProgress   b) UpdatePanel
      c) ScriptManager   d) Timer

   3) _____is not authentication type in ASP.NET.
      a) Form   b) Windows   c) Passport   d) Login

   4) In _____, the hidden form fields are used to store the state of objects on client side and returned back to server in subsequent request (as postback occurs)
      a) Session state   b) Cookies state
      c) View state   d) Query string state

   5) All ASP.NET Web Form controls are inherit from _____class.
      a) System.Web.UI.Page   b) System.Web.UI.WebControl
      c) System.Web.UI.Form   d) System.Web.UI.PageControl

   6) _____is a service provided by ASP.NET to suit a particular client's taste and preference.
      a) AJAX   b) Personalization
      c) WebService   d) None of these

   7) All application level setting such as Database connections, Error Page setting etc. can be done in the _____file.
      a) Web.Config   b) Machine.Config
      c) App.Config   d) Application.Config

   8) By default AutoPostBack property is true for _____control.
      a) HyperLink   b) LinkButton
      c) TextBox   d) ListBox

9) WCF is nothing but _____
   a) Window Communication Foundation
   b) Web Communication Foundation
   c) Web Common Function
   d) Windows Common Function

10) _____property of radio button is used to group the buttons.
   a) Group   b) GroupName
   c) RadioGroup   d) Text

11) By default value for ParentLevelDisplay property of SiteMapPath control is _____
   a) -1   b) 0   c) 1   d) None of these

12) For validating Pin code number, _____validation control is useful.
   a) Range   b) Required
   c) Compare   d) Regular Expression

13) The _____directives's Duration attribute determines how long the page is cached.
   a) @PageCatche   b) @MasterCatche
   c) @Catche   d) @OutputCache

14) Every master page contain <asp:Content>tag.
   a) True   b) False

15) For CircularHotSpot in ImageMap, _____numbers of parameters need to set.
   a) 1   b) 2   c) 3   d) More than 6

16) _____elements in advertisement file is used to specifies categories.
   a) Keyword   b) Impression
   c) Alternat Text   d) Keyword Filter

Q.2 A) Explain Partial class in detail. **06**
B) What is post back? Explain IsPostBack and AutoPostBack with example. **06**
C) Explain Multiview and View control with example. **04**

Q.3 A) What is ImageMap? Explain ImageMap with example. **06**
B) What is Web Service? Explain WSDL in detail. **06**
C) Explain Web.Config file in detail. **04**

Q.4 A) What is AJAX? Explain Client side and server side AJAX. **06**
B) Explain membership provider in detail. **06**
C) Explain sitemap file with example. **04**

Q.5 A) What is application folder? Explain different application folder used in ASP.Net. **08**
B) What is validation? Explain all validation controls with example. **08**

Q.6 A) Design Web page which display 10 friends' birthday on calendar. **08**
B) Explain List Class with example. **08**

Q.7 **Write short notes on the following (Any four)** **16**
1) SiteMapPath Control
2) Session State
3) Cookies
4) Silverlight
5) Personalization properties
6) Wizard Control