Seat No.

B.C.A. (Semester - II) (Old) (CGPA) Examination Oct/Nov-2017
OBJECT ORIENTED PROGRAMMING WITH C++

Day & Date: Friday, 10-11-2017   Max. Marks: 70
Time: 10.30 AM to 01.00 PM

Instructions: 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: **10**

1) Which of the following cannot be used with the keyword *virtual*?
   a) class   b) member function
   c) constructor   d) destructor

2) _____ refers to the act of representing essential features without including the background details or explanations.
   a) Encapsulation   b) Inheritance
   c) Polymorphism   d) Abstraction

3) Which of the following is function declaration with default value is valid?
   a) int   mul(int i,   int j=5, int k=10);
   b) int   mul(int i=5,   int j);
   c) int   mul(int i=0,   int j,   int k=10);
   d) int   mul(int i=10, int j=5, int k);

4) When a base class is privately inherited by a derived class then public members of base class become _____ of the derived class.
   a) private   b) public
   c) protected   d) none of these

5) When a function declared _____ the compiler replaces the function call with the respective function code.
   a) friend   b) inline
   c) virtual   d) static

6) Which of the following is a mechanism of static polymorphism?
   a) Operator overloading   b) Function Overloading
   c) Templates   d) All of the above

7) _____ is a special member function whose task is to initialize the objects of its class
   a) friend   b) inline
   c) constructor   d) virtual

8) How many types of polymorphisms are supported by C++?
   a) 1   b) 2
   c) 3   d) 4

9) _____ function can have aceess to the private data of a class.
   a) friend   b) inline
   c) virtual   d) static

10) The mechanism of deriving a class from another 'derived class' is
    known as _____.
   a) Multilevel Inheritance   b) Multiple Inheritance
   c) Hybrid Inheritance   d) Hierarchical Inheritance

Q.1 B) State whether True or False: **04**
   1) An abstract class is one that is not used to create objects.
   2) By default the members of the structure are private.
   3) In C++, we can pass the objects as function arguments.
   4) Compile time polymorphism can be achieved by using virtual function.

Q.2 Write answer of the following questions (Any two)   **14**
   a) What does *this* pointer point to? Explain with example.
   b) Write a program to accept information of five students (roll number, name and
      marks) and display it on screen using array of objects.
   c) What is constructor? Explain the types of constructors in with example.

Q.3 Write answer of the following questions (Any two)   **14**
   a) Explain the basic concepts of Object Oriented Programming language.
   b) What is virtual function? Explain the rules for virtual function.
   c) Write a program for pointers to object.

Q.4 Write answer of the following questions (Any two)   **14**
   a) Differentiate between POP and OOP.
   b) Explain multiple inheritance with example. What is ambiguity in multiple
      inheritance?
   c) How polymorphism is achieved in C++?

Q.5 a) Explain the manipulators used in C++.   **07**
   b) Explain read() and write() function in file handling with example.   **07**

Q.6 a) Write a program to find out area of a circle using inline function and class. **07**
   b) What is inheritance? Write a program for hybrid inheritance.   **07**

Q.7 Write short notes on (Any Two)   **14**
   a) Scope resolution operator
   b) Friend function
   c) Operator overloading

Seat No.	

B.C.A. (Semester - II) (Old) (CGPA) Examination Oct/Nov-2017
WEB TECHNOLOGY

Day & Date: Monday, 13-11-2017   Max. Marks: 70
Time: 10.30 AM to 01.00 PM

Instructions: 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) Right Figure Indicates Full Marks.

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

1) _____ is the keywords that affects the tag behavior
   a) Tab   b) Select
   c) Attribute   d) Readonly

2) _____ is cross platform Scripting language developed by Netscape
   a) Vbscript   b) HTML
   c) DHTML   d) JavaScript

3)
 Tag used for _____
   a) Space   b) Line Break
   c) Paragraph Break   d) Word Break

4) ID attribute is preceded by _____
   a) #   b) @
   c) ^   d) &

5) CSS Stands for _____
   a) Custom Style Sheet   b) Cascading Style Sheet
   c) Cascading System Style   d) None of These

6) HTML document start and end with which tag pairs?
   a) <HEAD>----</HEAD>   b) <BODY>----</BODY>
   c) <HTML>----</HTML>   d) <WEB>-----</WEB>

7) What is the correct Syntax in HTML for creating a link on a webpage?
   a) <Link SRC="abc.html">   b) <Body link="abc.html">
   c) <A SRC="abc.html">   d) <A HREF="abc.html">

8) _____ function is used in Vbscript to find out number of days between two given data
   a) Month ()   b) Datediff ()
   c) Minute ()   d) Dateadd ()

9) The First page of website is called _____
   a) First Page   b) Main Page
   c) Home Page   d) Design Page

10) The _____ Method ensures that a new web page is generated
   a) GET   b) POST
   c) DELETE   d) UPDATE

Q.1 B) State Whether True or False 04
1) The <area> tag defines an area inside an image map.
2) VB Script is an object – based scripting language.
3) The document object is not a built in object of JavaScript
4) In VBScript , a variable can be declared by the var keyword

Q.2 Write the Answer of the following question. (Any Two) 14
a) What is hyperlink? Explain types of hyperlink with its example.
b) What is frame? Explain <Frameset> tag with example.
c) Write a program in Vbscript to find out given number is Armstrong or not.

Q.3 Write the Answer of the following question. (Any Two) 14
a) Define the term CSS? Explain different types of CSS.
b) Explain the general Structure of HTML Document with suitable example.
c) Define the term List? Explain the different types of list.

Q.4 Write the Answer of the following question. (Any Two) 14
a) What is function in JavaScript? Explain with suitable example.
b) What is internet? Explain TCP/IP , client and server in details
c) Explain the looping statement with correct syntax in VBScript.

Q.5 Write the Answer of the following question 14
a) Define term Table? Explain table with suitable example.
b) Write a JavaScript program to find out given number is perfect or not.

Q.6 Write the Answer of the following question. 14
a) Explain Classes and Ids in DHTML with example
b) What is form in HTML? Explain GET and POST method with suitable example.

Q.7 Write short notes on: (Any Two) 14
a) Text Formatting tag with example
b) Document Object Model (DOM)
c) Data type in Vbscript

Seat No.

B.C.A. (Semester - II) (Old) (CGPA) Examination Oct/Nov-2017
FINANCIAL ACCOUNTING WITH TALLY

Day & Date: Wednesday, 15-11-2017   Max. Marks: 70
Time: 10.30 AM to 01.00 PM

Instructions: 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 right indicate full marks.

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

1) To activate gateway of tally _____ shortcut key is used
   a) Ctrl + M   b) Ctrl +P
   c) Ctrl +O   d) Ctrl +g

2) Using F2 functional key _____ option gets activated
   a) Restore   b) Backup
   c) Period   d) Date

3) _____ is the invalid voucher type in tally?
   a) Journal   b) Receipt
   c) Payment   d) Invoice

4) In _____ types of voucher, only bank and cash account are used
   a) Receipt   b) Payment
   c) Contra   d) Cash

5) The _____ is an arithmetical check of all transactions done as per date
   a) Trial Balance   b) Ledger
   c) Balance Sheet   d) Profit & Loss Account

6) In receipt voucher cash account has _____ type of balance
   a) Cash   b) Journal
   c) Credit   d) Debit

7) In Tally to change the features of the company _____ key is used
   a) F12   b) F4
   c) F11   d) F1

Q.1 B) State true or false   **07**
1) Tally does not permit to change the parent of a predefined group.
2) Contra voucher include all the entries between bank and cash.
3) Ledger are used for recording day to day transactions.
4) In payment voucher, cash account has debit type of balance.
5) In tally, to print the invoice Ctrl + p key is used.
6) Profit and Loss account is an arithmetical check of all the entries done upto date.
7) To activate gateway of tally press Ctrl +N as a shortcut key.

Q.2   Attempt any two from the following   **14**
   a) What is meant by purchase order? How can create, alter and delete a
       purchase
   b) Explain features of Tally.
   c) Explain the concept of VAT in Tally.

Q.3   Attempt any two from the following   **14**
   a) Explain the data import and export in Tally.
   b) Define groups and explain types of groups with example.
   c) Explain the Exception report in Tally.

Q.4   Attempt any two from the following   **14**
   a) Write a note on Recorder Level.
   b) Explain opening screen of Tally.
   c) Write a note on Cost center.

Q.5   State voucher for following transaction.   **14**
   1) Mr. Sham starts business with cash Rs 50000/-
   2) Paid salary Rs 10000/-
   3) Sold goods to Mr. Shekar Rs 5000/-
   4) Paid wages Rs 2000/-
   5) Sold furniture Rs 4000/-
   6) Receive interest on bank amount Rs 500/-
   7) Purchase raw material of Rs 10000/- on credit from Mr. Avinash

Q.6   Answer the following   **14**
   a) Define voucher. Explain different types of voucher in tally
   b) Explain the Scenario management in Tally.

Q.7   Answer the following   **14**
   a) Explain the security control and security levels in tally.
   b) Explain the concept of Service Tax.

Seat No.

B.C.A. (Semester - II) (Old) (CGPA) Examination Oct/Nov 2017
DEVELOPMENT OF HUMAN SKILLS

Day & Date: Friday, 17-11-2017 Max. Marks: 70
Time: 10.30 AM to 01.00 PM

Instructions: 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 sentence by choosing correct alternative. **14**

1) Good part of personality can be termed as _____ of personality.
   a) Weakness b) Strength
   c) Semi skill d) None

2) _____ is an objective which is very precise or exactly expressed in specific terms.
   a) Achievement b) Commitment
   c) Goal d) All

3) Goal setting is essential to overcome _____.
   a) Weakness b) Seminar
   c) Conference d) Formal

4) A process in which the person knows oneself is _____.
   a) Self discovery b) Interview
   c) Ability d) Attitude

5) _____ ability plays an important role in manual and semi skilled job.
   a) Reading b) Writing
   c) Learning d) Muscular

6) The basic ability related to senses is called _____.
   a) Love b) Sensory
   c) Truth d) Think

7) The speech without preparation is _____.
   a) Extempore speech b) Seminar
   c) Conference d) Formal

8) Interview is a form of _____ Communication.
   a) Written b) Oral
   c) Audio d) Visual

9) Short term and long term are types of _____.
   a) Memory b) Ability
   c) Skill d) Attitudes

10) A skill is known as _____.
    a) Expertise b) Ability
    c) Perception d) Acquision

11) _____ interview is conducted for earlier employee
    a) Stress b) Promotion
    c) Exit d) None

12) Human skills are known as _____ skills
   a) People
   b) Ability
   c) Perception
   d) Acquision

13) Audio – visual aids are used in _____.
   a) Interview
   b) Presentation
   c) Meeting
   d) Group discussion

14) Capacity to work is called as _____
   a) Ability
   b) Learning
   c) Skill
   d) Behavior

Q.2 **Answer any two of the following question.** 14
   a) Learning through reinforcement
   b) How to conduct seminar?
   c) Do's and don'ts for interview.

Q.3 **Answer any two of the following question.** 14
   a) What are 5 universal values?
   b) What are the possible audio – visual aids you can use for presentation?
   c) Mental ability & sensory ability.

Q.4 **Answer any two of the following question.** 14
   a) Explain attitudes.
   b) How to prepare for interview?
   c) Write some tips for listening skill

Q.5 **Answer the following questions.** 14
   a) What are the basic abilities?
   b) What is stress management?

Q.6 **Answer the following questions.** 14
   a) What are the types of interviews?
   b) How to make good presentation.

Q.7 **Write a short note (Any two)** 14
   a) Short and long term memory
   b) Reading skill
   c) Goal setting
   d) Computer skill

Seat No.

B.C.A. (Semester - II) (Old) (CGPA) Examination Oct/Nov-2017
BUSINESS STATISTICS

Day & Date: Monday, 20-11-2017   Max. Marks: 70
Time: 10.30 AM to 01.00 PM

Instructions: 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 alternative   **10**

1) If population is infinite, then _____ method is not applicable for study of population.
  a) Census   b) Sampling
  c) Stratified sampling   d) None of these

2) A measurable characteristic, whose value does not change is called _____.
  a) Attribute   b) Variable
  c) Constant   d) None of these

3) To determine _____, arrangement of data is necessary.
  a) Median   b) Mode
  c) A.M.   d) All of these

4) The mode of 12 observations is 16, if each observation is multiplied by 2, then mode will be _____.
  a) 24   b) 32
  c) 8   d) None of these

5) If each observation is increased by 10 then range will be _____.
  a) As it is   b) Increased by 10
  c) Decreased by 10   d) none of the these

6) If scatter diagram shows a straight line that parallel to X-axis, then the correlation is _____
  a) Positive   b) Negative
  c) Perfect   d) Zero

7) The equation of line of regression Y on X is used to estimate _____
  a) Y for known value of X
  b) X for known value of Y
  c) Any one of the variable for known value of other
  d) None of these

8) _____ index number uses quantities in base and current period as weights.
  a) Fisher's price   b) Fisher's quantity
  c) Laspeyre's price   d) Paasche's price

9) If P(A∩B) = 0, then events A and B are _____.
   a) Independent
   b) Dependent
   c) Mutually exclusive
   d) Exhaustive

10) If corr(X,Y) = 0.3, then corr(2X,-2Y) = _____.
   a) -0.3
   b) 0.3
   c) 0.6
   d) -0.6

Q.1 B) State whether True or False: 04
   1) Sampling increase accuracy of results
   2) Median cannot be determined from histogram
   3) Any sub-set of population is called event.
   4) Consistency of data increases as C.V. decreases.

Q.2 Attempt any Two   14
   a) Explain simple random sampling method.
   b) Compute mode for the data given below.

Class	20-40	40-60	60-80	80-100	100-120	120-140
frequency	14	17	21	29	26	13

   c) Compute Karl Pearson's coefficient of correlation between X and Y if u=(x-20), v=(y-30) and $n = 10, \sum u = 90, \sum v = 115, \sum u^2 = 1014, \sum v^2 = 1544, \sum uv = 1140$.

Q.3 Attempt any Two   14
   a) Define:
   1) Class-limits
   2) Discrete variable
   3) Continuous variable
   4) Open-end classes
   b) Find price index number for the data given below by
   1) Weighted aggregate method
   2) Weighted average of price relatives method.

Commodity	Price in base period	Price in Current period	Weights
A	10	18	24
B	15	15	25
C	2	1.5	2.5

   c) Find range, coefficient of range and s.d. for the following data.

Class	5-15	15-25	25-35	35-45	45-55
Freq.	7	12	18	14	10

Q.4 Attempt any Two   14
   a) Define – range, coefficient of range. State merits and demerits of range.
   b) Given: $n = 10, \sum X = 110, \sum Y = 140, \sum X^2 = 2220, \sum Y^2 = 3350, \sum XY = 1970$. Obtain equations of lines of regression y on x and x on y.
   c) Given: P(A)=0.4, P(B)=0.3 find P(AUB) if
   1) A and B are mutually exclusive
   2) A and B are independent

Q.5 a) Define – Probability .State addition and multiplication laws of probabilities.   07

   b) Draw greater than ogive to represent the following data and hence obtain median   07

Class	100-110	110-120	120-130	130-140	140-150	150-160
frequency	10	14	30	20	17	11

Q.6 **a)** Explain scatter diagram method of studying correlation between two variables. **07**

b) A firm appoints 3 types of workers as clerks, assistants and helpers. The mean salary paid to 40 clerks is Rs.460 and that to 25 assistants is Rs.660. Find mean salary paid to 35 helpers if mean salary of all workers is Rs.500 **07**

Q.7 **Attempt any Two** **14**

a) Define – Index number and explain selection of base period in construction of index no.

b) Explain concept of regression. Define regression coefficients.

c) A coin and a die are tossed at a time. Write sample space and find probability of getting
  1) Even number
  2) Head and perfect square number.

Seat No.	

B.C.A. (Semester - III) (Old) (CGPA) Examination Oct/Nov-2017
DATA STRUCTURE USING 'C'

Day & Date: Thursday, 09-11-2017 Max. Marks: 70
Time: 02.30 PM to 05.00 PM

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

Q.1 A) Choose correct alternatives. 07

1) _____ is primitive data structure.
   a) Stack   b) Queue
   c) Linked list   d) Int

2) If preorder traversal of binary tree is GADBCEF then its post order is ___
   a) DCBAFGE   b) DCBAFEG
   c) DCBFAEG   d) DBCAFEG

3) Node of singly linked list does not have _____node pointer.
   a) Next   b) Previous
   c) Header   d) Both a & b

4) In case of circular queue, if "front= = rear+1" then queue is _____.
   a) Full   b) Created
   c) Empty   d) Overflows

5) _____ linked list does not contains NULL part in its node structure.
   a) Singly   b) Doubly
   c) Circular Singly   d) Linear Singly

6) _____ data structure is used in simulation application.
   a) Array   b) Stack
   c) Queue   d) Tree

7) To sort '10' numbers, bubble sort requires _____ maximum comparisons.
   a) 47   b) 43
   c) 45   d) 49

Q.1 B) State whether True or False 04
1) If key comparisons are minimum then searching process fast.
2) Linked list data structure is useful in polynomial manipulations.
3) The degree of node of binary tree may be greater than two.
4) Indexed sequential search requires an auxiliary storage for searching.

C) Fill in the blanks 03
1) _____node of a tree does not have any descendants.
2) PUSH operation of stack becomes successful if stack is _____
3) _____ queue allows use insertion in both ends but deletion in only one end.

Q.2 **Attempt any <u>two</u> of the following** **14**
   a) Write a program to implement circular queue with its basic operations.
   b) What is doubly circular Linked list? Explain its add_first() & count() operations.
   c) Write a program that calculates addition of all even numbers in an array.

Q.3 **Attempt any <u>two</u> of the followings:** **14**
   a) Write a program to sort an array elements using quick sort method.
   b) Write an algorithm to 'delete' existing node from binary search tree.
   c) Write a program to implement stack using linked list.

Q.4 **Attempt any <u>two</u> of the followings:** **14**
   a) How stack is useful in subroutine call?
   b) What is Threaded binary tree? Explain all its types.
   c) Write a program to implement binary search method of searching.

Q.5 **a)** Explain following operations of binary search tree. **07**
      a) Count_total()
      b) count_leaf()
      c) inorder()
   b) Write a program to convert an expression from infix to prefix form. **07**

Q.6 **a)** Write a program to implement straight selection sort method. **07**
   b) What is Deque? Explain input restricted deque with following operations. **07**
      a) Insert ()
      b) rem_left()
      c) rem_right()

Q.7 **Write short notes on the following (Any two)** **14**
   a) Write algorithm for push and pop operations of stack.
   b) Radix sort
   c) ADT for Priority Queue.

Seat No.	

B.C.A. (Semester - III) (Old) (CGPA) Examination Oct/Nov-2017
NETWORKING AND DATA COMMUNICATION

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

Instructions: 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) _____ a primitive provided by layer n + 1 in replay to an indication primitive. It may acknowledge or complete an action previously invoked by a request primitive.
   a) Response   b) Indication
   c) Request   d) Confirm

2) _____ layer is responsible for process to process delivery between host.
   a) Network   b) Session
   c) Application   d) Transport

3) A bridge is a device which works in the _____ Layer
   a) Data Link   b) Physical
   c) Transport   d) Session

4) _____ describes the amount by which the waveform shifts forward or backward along the time axis.
   a) Phase   b) Frequency
   c) Amplitude   d) Bit rate

5) Infrared waves have a frequencies in the range of _____ to _____.
   a) 300 GHz to 400THz   b) 3 kHz to 1GHz
   c) 1GHz to 300GHz   d) None of these

Q.1 B) State true or false   05

1) Multiplexing allows to transmit multiple signals using single link
2) Modulation is a process of varying some properties of carries signal with respect to modulated signal
3) Asynchronous serial transmission is faster than synchronous serial transmission
4) A circuit-switched network is made of a set of switches connected by physical links, in which each link is divided into n channels.
5) In Amplitude modulation, the Amplitude of the carrier signal is varied with respect to modulated signal, phase and frequency of the carrier signal remains constant.

Q.1 **C)** **Fill in the blanks with correct answer** 04
1) Data transmission occurs in one of two ways, either _____ or _____.
2) _____ noise is the random motion of electrons in a wire which creates an extra signal not originally sent by the transmitter.
3) _____ between two words (of the same size) is the number of differences between the corresponding bits.
4) _____ refers to the variation in the packet arrival time.

Q.2 **Write answer to any two of the following question** 14
a) What is modulation? Why it is needed and describes different types of modulation.
b) What is Network Topologies? Explain any two topologies.
c) What are the different types of Data transmission modes?

Q.3 **Write answer to any two of the following question.** 14
a) Explain the history of internet in brief.
b) What is multiplexing? Explain different types of multiplexing.
c) Explain the components of data communication

Q.4 **Write answer to any two of the following question.** 14
a) Explain the design issues of Layered architecture
b) Describe unguided Transmission media in details.
c) What is Switching? Explain Circuit Switching and Packet Switching.

Q.5 **a)** Explain ISO-OSI reference model 07
b) Explain types of Errors and Hamming Code technique with example. 07

Q.6 **a)** What is congestion in data communication? What are different congestion control mechanism, explain in short 07
b) Explain TCP/ IP protocol suite in detail 07

Q.7 **Write short notes on: (Any two)** 14
a) Explain multiple access protocol
b) Connection oriented and connection less services
c) ARP and RARP
d) Types of Network
e) Cyclic Redundancy Check
f) Telnet

Seat No.

B.C.A. (Semester - III) (Old) (CGPA) Examination Oct/Nov-2017
DATABASE MANAGEMENT SYSTEM

Day & Date: Tuesday, 14-11-2017
Time: 02:30 PM to 05:00 PM

Max. Marks: 70

Instructions: 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 questions carry equal marks.

Q.1 Choose correct alternatives.   14

1) The process of managing simultaneous operations on the database without having them interfere with one another is _____
   a) Serializability   b) Recoverability
   c) Concurrency control   d) Transaction management

2) A transaction completes its execution is said to be _____
   a) Committed   b) Aborted
   c) Rolled back   d) Failed

3) Which protocol ensures conflict Serializability?
   a) Value based protocol   b) Read based protocol
   c) Timestamp based protocol   d) Validation based protocol

4) A functional dependency between two or more non key attributes is called a _____
   a) Partial functional dependency   b) Partial nonkey dependency
   c) Transitive dependency   d) Non transitive dependency

5) DBMS periodically suspends all processing and synchronizes its files and journals through the use of _____
   a) Checkpoint facility   b) Backup facility
   c) Recovery manager   d) Database change log

6) Disks and tapes are the example of _____
   a) Volatile storage   b) Non-volatile_storage
   c) Stable storage   d) None of above

7) Which Model describes entities, relationship and attributes?
   a) E - R Model   b) Functional
   c) Relational   d) Network

8) Student address attribute is an example of derived attribute.
   a) True   b) False

9) A primary key is an attributes that uniquely identifies each row in a relation
   a) True   b) false

10) The file organization which allows us to read records that would satisfy the join condition by using one block read is _____organization.
    a) Heap file   b) Sequential file
    c) Clustering file   d) Hash file

11) An entity type whose existence depends on another entity type is called a
_____ entity.
a) Strong
b) Weak
c) Codependent
d) Variant

12) Which of the following Relational Algebra operations require that both tables
involved have the exact same attributes?
a) Join, Projection, Restriction
b) Multiplication and Division
c) Union, Intersection, Difference
d) Difference, Multiplication, Intersection

13) Making a change to the conceptual schema of a database but not affecting
the existing external schemas is an example of
a) Physical data independence
b) Concurrency Control
c) Logical data independence
d) Functional dependency

14) The three level architectures are _____ defines user view of the database.
The _____ defines the physical view of the database. The _____
defines the logical schema of the database.
Which of the following set is suitable to fill the blanks in the above paragraph?
a) i) Conceptual Level   ii) External Level   iii) Internal Level
b) i) Conceptual Level   ii) Internal Level   iii) External Level
c) i) External Level   ii) Conceptual Level   iii) Internal Level
d) i) External Level   ii) Internal Level   iii) Conceptual Level

Q.2	**a)** What is transaction? Explain ACID property of transaction.	**05**
	b) Define the following terms	**05**
	1) Select	
	2) Projection	
	3) Union	
	4) Intersection	
	c) What is indexing? What are its advantages and disadvantages of indexed files?	**04**
Q.3	**a)** Explain log based recovery.	**05**
	b) What is DBMS? Explain Query processor of database system.	**05**
	c) Write a note on shadow paging.	**04**
Q.4	**a) Define the following terms**	**05**
	1) Schema	
	2) Domain	
	3) Cardinality	
	4) Shared lock	
	b) How many ways of recovery from concurrent transaction? Explain	**05**
	c) Define Generalization and Specialization.	**04**
Q.5	**a)** Define Attribute. Explain the various types of attribute with example.	**07**
	b) What is Functional Dependency? Explain different types of dependency	**07**
Q.6	**a)** What is Schedule? Explain any three types of schedules.	**07**
	b) What is Normalization? Explain different normal forms with suitable example.	**07**
Q.7	**Explain following terms in details (any two)**	**14**
	a) Types of Outer join	
	b) Role of DBA	
	c) Differentiate Network model and Hierarchical Model	

Seat No.

B.C.A. (Semester - III) (Old) (CGPA) Examination Oct/Nov-2017
CORE JAVA

Day & Date: Thursday, 16-11-2017   Max. Marks: 70
Time: 02.30 PM to 05.00 PM

Instructions: 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   Choose the correct alternatives: **14**
1) _____ is java compiler.
   a) Javac   b) Java
   c) Javadoc   d) Javah

2) Which of the following is not a type of integer in java?
   a) Byte   b) Short
   c) Long   d) double

3) _____ is exit controlled loop in java.
   a) do-while   b) while
   c) for   d) All of above

4) _____ statement restart the current loop in java.
   a) break   b) goto
   c) continue   d) All of the above

5) _____ members of the class are not accessible anywhere outside the class .
   a) Public   b) Default
   c) Private   d) Protected

6) Static method is declared by using keyword_____.
   a) Virtual   b) Override
   c) Final   d) None of these

7) _____ keyword is used to refer super class members in the sub class.
   a) Super   b) Sub
   c) Internal   d) None of these

8) Writing two or more methods with same name and same signature is called
   a) Method overloading   b) Method overriding
   c) Inheritance   d) None of these

9) A class that cannot be sub classed is class _____.
   a) Last class   b) Final class
   c) Abstract class   d) None of these

10) Extending interface is
    a) An interface can be sub interfaced from other interface.
    b) Method of interface is implemented in the class
    c) Method of interface is implemented in the interface
    d) Method of interface is implemented in the structure

11) In java threads can be created _____.
   a) By extending thread class
   b) By implementing runnable interface.
   c) a or b
   d) none of these

12) _____ file contain compressed version of .class file.
   a) Jar   b) Object
   c) Header   d) All of the above

13) _____ Members are available in the same package but not outside the package.
   a) Public   b) Protected
   c) Private   d) Default

14) _____ block can be used to handle any type of exception generated within try block.
   a) Finally   b) Try
   c) Throw   d) Throws

Q.2   Attempt any two.   14
   a) Explain looping control structures in Java.
   b) Write a program to implement an interface.
   c) What is static method? Explain with example.

Q.3   Attempt any two.   14
   a) What is difference between method overloading and method overriding?
   b) What are characteristics of Java?
   c) Write a program to implement constructor overloading.

Q.4   Attempt any two.   14
   a) Explain thread priority.
   b) Explain byte stream classes in java.
   c) Write a program to show the use of final keyword.

Q.5   a) What is event delegation model in java?   **07**
   b) Explain thread life cycle.   **07**

Q.6   a) Write a program to implementation of single inheritance.   **07**
   b) Explain Button component with its action listener.   **07**

Q.7   Write a note on. (Any two)   14
   a) Thread synchronization
   b) Layout manager
   c) Structure of java program
   d) Instance variable

Seat No.		**Set**	**P**

B.C.A. (Semester - III) (Old) (CGPA) Examination Oct/Nov-2017
FINANCIAL MANAGEMENT

Day & Date: Saturday, 18-11-2017　　　　　　　　　　　Max. Marks: 70
Time: 2:30 PM to 05:00 PM

Instructions: 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　Choose correct alternatives.　　　　　　　　　　　　　　　　14

1) Excess of current assets over current liabilities is termed as _____.
   a) Fixed assets　　　　　　　　　b) Total liabilities
   c) Current assets　　　　　　　　d) Working capital

2) Short term assets which in the normal course of business are convertible into cash within _____ years.
   a) 2　　　　　　　　　　　　　　b) 1
   c) 4　　　　　　　　　　　　　　d) 3

3) Temporary working capital also known as _____.
   a) Variable working capital　　　b) Gross working capital
   c) Net working capital　　　　　d) Fixed working capital

4) The assets held by business which can be converted in the form of cash, without distributing the normal operations of business is _____
   a) Tangible assets　　　　　　　b) Intangible assets
   c) Fixed assets　　　　　　　　d) Current assets

5) Current assets are also referred to as _____.
   a) Working capital　　　　　　　b) Investments
   c) Inventory　　　　　　　　　　d) Livestock

6) The only feasible purpose of financial management is _____
   a) Wealth maximization　　　　　b) Sales maximization
   c) Profit maximization　　　　　d) Assets maximization

7) Financial management process deals with _____
   a) Investments　　　　　　　　　b) Financial decisions
   c) Both a and b　　　　　　　　　d) None of these

8) Finance function comprises _____.
   a) Safe custody of funds only
   b) Expenditure of funds only
   c) Procurement of finance only
   d) Procurement and effective use of funds

9) High degree of financial leverage means_____.
   a) High debt proportion　　　　　b) Lower debt proportion
   c) Equal debt and equity　　　　　d) No debt

10) Combined leverage is obtained from OL and FL by their_____.
    a) Addition
    b) Subtraction
    c) Multiplication
    d) Any of these

11) Financial planning deals with _____.
    a) Preparation of financial statement
    b) Planning for a capital issue
    c) Preparing budgets
    d) None of these

12) Which of the following is studied with the help of financial leverage?
    a) Marketing risks
    b) Interest rate risk
    c) Foreign exchange risk
    d) Financing risk

13) The objective of wealth maximization takes into account_____.
    a) Amount of returns expected
    b) Timing of anticipated returns
    c) Risk associated with uncertainty of returns
    d) All of the above

14) Financial Management mainly focuses on _____.
    a) Efficient management of every business
    b) Brand dimension
    c) Arrangement of funds
    d) All elements of acquiring and using means of financial resources for financial activities.

Q.2 **Attempt any two of the followings:**
    a) Explain Financial Plans.   **07**
    b) Write Theories of Capitalization.   **07**
    c) Write types of Leverage.   **07**

Q.3 **Attempt any two of the followings:**
    a) Explain role of Finance Manager.   **07**
    b) Distinguish between operating leverage and financial leverage   **07**
    c) Explain steps and characteristics of financial planning.   **07**

Q.4 **Attempt any two of the followings:**
    a) Explain importance of financial management.   **07**
    b) Write types of working capital.   **07**
    c) What is under capitalization? Explain remedies for under capitalization.   **07**

Q.5 **a)** What are the merits and demerits of profit maximization?   **07**
    b) What is financial planning? Explain elements of financial plans.   **07**

Q.6 **a)** What is over capitalization? Explain causes and effects of over capitalization.   **07**
    b) Distinguish between profit maximization and wealth maximization.   **07**

Q.7 The board of directors of **XYZ Engineering Co. Pvt. Ltd.** requests you to **14** prepare a statement showing the working capital requirements for a level of activity of 1,56,000 units of production. The following information is available for your consideration.

A)

	Per unit (Rs.)
Raw materials	90
Direct labour	40
Overheads	75
Total cost	**205**
Profit	60
Selling price per unit	**265**

B)
i) Raw materials are in stock on an average one month.
ii) Materials are in process 50% complete on an average of two weeks.
iii) Finished goods are in stock on an average one month.
iv) Credit allowed by suppliers one month.
v) Time lag in payment from debtors two months.
vi) Lag in payment of wages 1 & ½ weeks.
vii) Lag in payment of overheads one month.
viii) 20% of output is sold against cash.
ix) Cash in hand and bank expected Rs.60000.
     Assume that production is carried on evenly throughout the year, wages and overheads accure similarly and a time period of 4 weeks is equivalent to a month.

Seat No.

B.C.A. (Semester - IV) (CGPA) Examination Oct/Nov-2017
SOFTWARE ENGINEERING

Day & Date: Friday, 10-11-2017   Max. Marks: 70
Time: 02.30 PM to 05.00 PM

Instructions: 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 of the following model is not suitable accommodating any changes?
   a) Prototyping   b) Spiral
   c) Waterfall   d) RAD

2) Share Market is an example of _____ system.
   a) Deterministic   b) Probabilistic
   c) Open   d) Closed

3) Which one of the following is not form of Decision table?
   a) Limited-Entry   b) Extended-Entry
   c) Mixed-Entry   d) Double-Entry

4) The DFD and Data dictionaries are useful in _____ phase of SDLC.
   a) Coding   b) Testing
   c) Designing   d) Requirement analysis

5) White box testing is also called _____.
   a) Glass box testing   b) Green box testing
   c) Functional testing   d) None of these

6) In an ER-Diagram to represent an attribute we use _____.
   a) Rectangle   b) Ellipse
   c) Diamond   d) Line

7) The longest method of conversion is _____.
   a) Direct   b) Parallel
   c) Pilot   d) Phased

Q.1 B) State whether True or False   **04**
1) First level DFD contains single process.
2) If system is in routine in nature then it gives negative feedback.
3) System analyst should not create models/ prototypes of the system.
4) Aliases mean different names of data items.

Q.1 C) Fill in the blanks.   **03**
1) _____ symbol is used in flowchart to represent any data displayed by computer system.
2) The inter dependency between modules is called as _____.
3) _____ technique is used to collect information from individuals or from groups.

Q.2 **Attempt any two of the followings :** **14**
   a) Explain the various types of System.
   b) What is Decision table? Explain its types with example.
   c) Explain Top-down incremental implementation. State its advantages and disadvantages.

Q.3 **Attempt any <u>two</u> of the following :** **14**
   a) Explain the different roles of the system analyst.
   b) Define the term Entity, Attribute and relationship. Explain types of relationship with example.
   c) Explain the concept and principles of output design.

Q.4 **Attempt any <u>two</u> of the following :** **14**
   a) Explain the Spiral Model in detail.
   b) Explain the various qualities of software.
   c) What statistics is collected for configuring the System?

Q.5 **a)** Draw an ER-diagram for College Admission System. **07**
   b) What is Data Dictionary? Explain the contents of Data dictionary. **07**

Q.6 **a)** What is normalization? Explain 1NF, 2NF and 3NF in brief. **07**
   b) Draw a CLD and first level DFD for Payroll system. **07**

Q.7 **Write short notes on the following (Any two)** **14**
   a) White Box testing
   b) Questionnaire
   c) Elements of the system

B.C.A. (Semester - IV) (CGPA) Examination Oct/Nov-2017
RDBMS with Oracle

Day & Date: Monday, 13-11-2017   Max. Marks: 70
Time: 02.30 PM to 05.00 PM

Instructions: 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 the correct alternatives: **07**
1) Create, alter and drop are _____ commands.
   a) Data definition language   b) Data manipulation language
   c) Data control language   d) None of these

2) The variables in the triggers are declared using _____.
   a) -   b) @
   c) /   d) /@

3) The _____ constraint can only be applied at column level
   a) Not Null   b) Primary key
   c) Foreign key   d) None of these

4) A PL/SQL block begins with _____ section.
   a) End   b) Start
   c) Main   d) Declare

5) A sub-query is also termed as _____
   a) Nested sub query   b) Nested query
   c) Sub query   d) None of these

6) All loop statements must end with an _____ statement.
   a) End loop   b) End if
   c) Else   d) None of these

7) Select round (44.444,1) from dual;
   a) 44.44   b) 44.4
   c) 40   d) 44

Q.1 B) Fill in the blanks.   **04**
1) Function that act on set of values are called as _____.
2) The _____function convert a value of a DATE data type to CHAR value.
3) A _____ value can be inserted into the columns of any data type.
4) Raw data types are used to store _____ data.

Q.1 C) State whether the true or false.   **03**
1) Count (Expression) function returns the number of rows where expression is not null.
2) Unions can be used in sub queries.
3) Joining a table itself is called Equi Join.

Q.2	a)	Explain different operators used in SQL with example.	05
	b)	Explain the Group by and Having clause with example.	05
	c)	Write the different between RDBMS and DBMS.	04
Q.3	a)	What is join? Explain different types of joins.	05
	b)	Write a PL/SQL block to test given number is Armstrong or not by using procedure.	05
	c)	Explain aggregate function with example.	04
Q.4	a)	Explain exception handling in PL/SQL	05
	b)	Write a PL/SQL block to check number is prime or not.	05
	c)	What is trigger? Give the applications of triggers.	04
Q.5	a)	What is Cursor? Explain types of cursor with example.	07
	b)	Write a PL/SQL block to accept a number from user and print it in reverse order.	07
Q.6	a)	Explain different integrity constraint with example.	07
	b)	What is DDL and DML? Explain Insert, Update and Delete commands with suitable example.	07
Q.7		**Write short notes on the following (Any two)**	**14**
	a)	Views	
	b)	Differentiate between PL/SQL function and procedure	
	c)	Looping statement in PL/SQL.	

Seat No.	

B.C.A. (Semester - IV) (CGPA) Examination Oct/Nov-2017
OPERATING SYSTEM

Day & Date: Wednesday, 15-11-2017   Max. Marks: 70
Time: 02:30 PM to 05:00 PM

Instructions: 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) Figure to the right indicates full marks.

Q.1 A) Choose correct alternatives from the following: **10**

1) Which of the following is the part operating system?
     a) Kernel services   b) Library services
     c) Application level services   d) All of the above

2) Which of the following is not the approach to dealing with deadlock?
     a) Prevention   b) Deletion
     c) Detection   d) Avoidance

3) The operating system of a computer serves as a software interface between the user and the _____.
     a) Hardware   b) Peripheral
     c) Memory   d) Screen

4) A major problem with priority scheduling is _____.
     a) Definite blocking   b) Starvation
     c) Low priority   d) None of the above

5) A thread is a _____ process.
     a) Heavy Weight   b) Multi process
     c) Inter Thread   d) Light weight

6) A process said to be in _____ state if it was waiting for an event that will never occur.
     a) Safe   b) Unsafe
     c) Starvation   d) Dead lock

7) A page fault occurs?
     a) When the page is not in the memory
     b) When the page is in the memory
     c) When the process enters the blocked state
     d) When the process is in the ready state

8) The number of processes completed per unit time is known as _____
     a) Output   b) Throughput
     c) Efficiency   d) Capacity

9) The mechanism that bring a page into memory only when it is needed is called _____
     a) Segmentation   b) Fragmentation
     c) Demand Paging   d) Page and Replacement

10) In a segmentation the logical memory can be divided into _____.
    a) Page   b) Frame
    c) Block   d) Segment

Q.1 B) State whether True or False: **04**
1) With paging, each process is divided into relatively small, fixed-size pages.
2) Semaphore doesn't require busy waiting
3) The long-term scheduler controls the degree of multiprogramming
4) The banker's algorithm is used for deadlock recovery

Q.2 Write answer of the following questions (Any two):   **14**
a) Define the term file? Explain the different types of file.
b) What is meant by Scheduling? Explain different scheduling Criteria.
c) Define the term process? Explain process control block in detail.

Q.3 Write answer of the following questions (Any two):   **14**
a) Define operating system? Explain different types of operating system
b) Consider the following example. Implement the FCFC Scheduling algorithm.
    i) Draw the Gantt chart.
    ii) Calculate the average waiting time.
    iii) Calculate the turnaround time.

Process	Burst Time
P0	7
P1	5
P2	2
P3	9

    (Time in Millisecond)
c) Explain the system Generalization and virtual machine.

Q.4 Write answer of the following questions (Any two):   **14**
a) Define the Swapping? Explain the Swapping in detail.
b) How deadlock detection is implemented by system for single and multiple instances of resources.
c) What are the requirements to solve the critical section problem?

Q.5 Write answer of the following questions   **14**
a) Explain the different services provided by operating system.
b) What is page replacement? Write the working of FIFO page replacement algorithm.

Q.6 Write answer of the following questions   **14**
a) State and explain various directory structures.
b) What is meant by Synchronization? Explain the Reader Writer Problem.

Q.7 Write answer of the following questions. (Any Two)   **14**
a) Demand paging
b) Deadlock handling
c) Inter process Communication and co-operating process.

Seat No.	

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

Day & Date: Friday, 17-11-2017   Max. Marks: 70
Time: 02.30 PM to 05.00 PM

Instructions: 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 questions carry equal marks.

Q.1 Choose the single correct alternatives: **14**

1) Which of the following function used to count elements in an array?
    a) Count   b) Capacity
    c) Array_Count   d) Count_array

2) Which of the following is correct way of creating an array?
    a) Uni[0] = "Solapur University";   b) $Uni[0] = "Solapur University";
    c) Both a and b   d) None of these

3) PHP files have a default file extension of _____.
    a) .html   b) .xml
    c) .php   d) .phx

4) _____ function is used to sort an array in descending order.
    a) Sort   b) Asort
    c) Rsort   d) Dsort

5) A PHP _____ variable is used to store the information or change setting for a user session.
    a) Session   b) Global
    c) Section   d) All of these

6) _____ used to provide comment in PHP.
    a) / /   b) #
    c) /* */   d) All of these

7) _____ method scope prevents a method from being overridden by a subclass.
    a) Protected   b) Final
    c) Abstract   d) Static

8) Which of the following statement is true about Constructors in PHP?
    a) Constructors can accept parameters.
    b) Constructors can call on other constructors.
    c) Both a and b
    d) None of these

9) Local variables are destroyed when you exit the function.
    a) True   b) False

10) Which SQL statement is used to update data is a database?
   a) MODIFY
   b) SAVE AS
   c) SAVE
   d) UPDATE

11) Which of the following method is responsible for sending the query to the database?
   a) sendquery()
   b) query()
   c) send_query()
   d) dispatch_query()

12) _____ operator is used to concatenate two strings in PHP.
   a) . (dot)
   b) + (plus)
   c) & (ampersand)
   d) || (pipe)

13) Which of the following method sends input to a script via a URL?
   a) Get
   b) Post
   c) Client
   d) All of these

14) The function cookie () is used to enable or disable cookie support.
   a) True
   b) False

Q.2	**a)** Explain different Array library functions.	**05**
	b) What is function? Explain how to set default values for arguments.	**05**
	c) Write note on dynamic function call	**04**
Q.3	**a)** How to create an array? Give one example.	**05**
	b) Write a program to implement interface.	**05**
	c) Write note on redirecting web pages.	**04**
Q.4	**a)** What is constructor? Explain in detail.	**05**
	b) Explain different data types in PHP.	**05**
	c) Write note on comparing and joining strings.	**04**

Q.5 **a) Explain the term.** 07
   1) Cookies
   2) Deleting a cookie
   3) Creating session cookie

b) What is validation? Explain client side validation. 07

Q.6 **a)** Design a web application to perform the following operations on Book table. 07
   1) Delete a record
   2) Modify a record

b) Explain the following functions with syntax and purpose. 07
   1) Echo( )
   2) strstr( )
   3) substr( )
   4) srrpos( )

Q.7 **Write short notes on the following** 14
   a) Abstract classes
   b) File upload
   c) My SQL Architecture
   d) Reading and writing text files..

Seat No.		Set	P

B.C.A. (Semester - IV) (CGPA) Examination Oct/Nov- 2017
E-COMMERCE

Day & Date: Monday, 20-11-2017   Max. Marks: 70
Time: 02:30 PM to 05:00 PM

Instructions: 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: **14**

1) A digital signature is
   a) Scanned signature
   b) Signature in binary form
   c) Encryption Information
   d) Handwritten signature

2) A computer communication technology that provides a way to interconnect multiple computer across short distance is
   a) LAN
   b) MAN
   c) WAN
   d) Wireless Network

3) Secret Key encryption is also known as
   a) Asymmetric encryption
   b) Symmetric encryption
   c) Secret encryption
   d) Private encryption

4) An business that allows consumer to name their own price for product and services is following which e-business model?
   a) B2B
   b) B2G
   c) C2C
   d) C2B

5) The methods of payment for online consumer
   a) Electronic cash
   b) Credit/Debit
   c) Electronic checks
   d) All of the above

6) Which of the following describes e-commerce?
   a) Doing business electronically
   b) Doing business
   c) Sale of goods
   d) All of the above

7) The best product to sell in B2C e-commerce are
   a) Small product
   b) Digital products
   c) Specialty Product
   d) Fresh Product

Q.1   B)   Fill in the blanks.

1) The solution for all business needs is _____
2) SSL stands for _____.
3) Unsolicited e-mails is called _____.
4) Smart card is better protected than other card using _____.
5) The E-payment mechanism widely used in B2B is _____.
6) E- cheques are _____.
7) _____ Is backbone of all E-payments in e-commerce?

Q.2 **Write a short note (Any two)** **14**
    a) Explain features of supply chain management.
    b) Explain the Traditional payment system.
    c) Explain the type of E-commerce.

Q.3 **Answer the following:** **14**
    a) Define e-commerce trade cycle.
    b) Write the process of online share dealing.

Q.4 **Answer the following:** **14**
    a) Explain the porter's value chain model.
    b) What is E-visibility?

Q.5 **Answer the following:** **14**
    a) Define electronic market. Explain types of electronic market.
    b) Explain objectives of e-commerce.

Q.6 **Answer the following:** **14**
    a) Explain the web site evaluation model
    b) Explain business strategy

Q.7 **Write a short note (Any two)** **14**
    a) Future of electronic market
    b) EDI
    c) Online share dealing.

Seat No.		Set	P

B.C.A. (Semester - V) (CGPA) Examination Oct/Nov- 2017
ADVANCED JAVA – I

Day & Date: Thursday, 09-11-2017   Max. Marks: 70
Time: 10.30 AM to 01.00 PM

Instructions: 1) Q.1 and Q.7 are compulsory.
2) Solve any two questions from Q. 2 to Q.4.
3) Solve any one question from Q. 5 and Q.6.
4) Figures to the right indicate full marks.

Q.1   Choose the single correct alternatives: **14**
1) _____ method will be called repeatedly whenever request is send to servlet.
a) init ()   b) start()
c) service()   d) repeat()

2) How many JDBC technology-based drivers are exist?
a) 2   b) 3
c) 4   d) 5

3) Which method is used for an SQL statement that is executed frequently?
a) prepareStatement   b) prepareCall
c) createStatement   d) None of the above

4) _____ method is called only once during the life cycle of an applet
a) stop()   b) paint()
c) init()   d) destroy()

5) Related transaction between single client and server along a specific interval of time is called _____.
a) cokkie   b) session
c) transaction   d) none of these

6) The RequestDispatcher class is in _____ pacgake.
a) java.awt   b) javax.applet
c) java.sql   d) javax.servlet

7) _____ is used for validating xml document.
a) DTD   b) schema
c) Both A and B   d) None of these

8) The servlet can obtain information about client environment using _____object.
a) Response   b) Request
c) Context   d) Post

9) Which packages represent interfaces and classes for servlet API?
   a) javax.servlet
   b) javax.sql
   c) Both A and B
   d) None of the above

10) Which methods are used to bind the objects on HttpSession instance and get the objects?
   a) setAttribute
   b) getAttribute
   c) Both A and B
   d) None of the above

11) Which method is used to perform DML statement in JDBC
   a) execute()
   b) executeQuery()
   c) executeUpdate()
   d) executeResult()

12) _____ is an optional attribute of an applet tag.
   a) code
   b) width
   c) height
   d) alt

13) Servlet technology is basically used for _____ applications.
   a) Desktop
   b) Web
   c) Standalone
   d) None of these

14) In _____ file we define a servlet mapping.
   a) web.xml
   b) code.xml
   c) servlet.xml
   d) mapping.xml

Q.2	**a)** Explain different steps for JDBC.	**05**
	b) Explain the different methods of applet life cycle.	**05**
	c) What is applet tag? What are its attributes?	**04**
Q.3	**a)** What is xml schema? Explain types of elements	**05**
	b) Explain cookies in servlet with example.	**05**
	c) Explain the XML attributes with example.	**04**
Q.4	**a)** Explain the use of prepared statement with example.	**05**
	b) Explain the methods of ResultSet interface	**05**
	c) What is the different between GenericServlet and HttpServlet?	**04**
Q.5	**a)** Write a JDBC program to insert information of employee and display the inserted information.	**07**
	b) Write a Servlet program for session tracking using hidden form field.	**07**
Q.6	**a)** Design an applet to display the rectangle, circle and oval.	**07**
	b) Write a program for handling doGet () method	**07**
Q.7	**Write short notes on the following (Any two)**	**14**
	a) Connection interface in JDBC.	
	b) XML DTD.	
	c) JDBC architecture.	

Seat No.

B.C.A. (Semester - V) (CGPA) Examination Oct/Nov-2017
VISUAL PROGRAMMING

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

Instructions: 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   **Choose the single correct alternatives:**   **14**

1) What is the need for 'Conversion of data type' in C#?
    a) To store a value of one data type into a variable of another data type
    b) To get desired data
    c) To prevent situations of run time error during change or conversion of data type
    d) None of the mentioned

2) Which of these classes is used to make a thread?
    a) String   b) System
    c) Thread   d) Runnable

3) Which of these keywords are used for the block to handle the exceptions generated by try block?
    a) Try   b) Catch
    c) Throw   d) Check

4) What is the process of defining more than one method in a class differentiated by parameters known as?
    a) Method overriding   b) Method overloading
    c) Method doubling   d) None of the mentioned

5) Which of these methods is executed first before execution of any other thing that takes place in a program?
    a) Main method   b) Finalize method
    c) Static method   d) Private method

6) Which of the following is NOT an Arithmetic operator in C#.NET?
    a) **   b) +
    c) /   d) %

7) _____ namespace is required to connecting to the SQL Server.
    a) System.Data.OracleClient   b) System.Data.SqlClient
    c) System.Data.   d) System.Data.ADO

8) _____ property allows the Text Box control to display text in more than one line.
    a) Many   b) More
    c) Multiline   d) Many line

9) MDI stands for Multiple Document Interface.
    a) True   b) False

10) _____control is used to select multiple items at a time.
   a) Text Box
   b) Combo Box
   c) List Box
   d) Option Box

11) _____ specially designed for accessing the value of an array or a collection.
   a) For loop
   b) While loop
   c) Do-while loop
   d) Foreach loop

12) To implement delegates, the necessary condition is?
   a) Class declaration
   b) Inheritance
   c) Run time polymorphism
   d) Exceptions

13) Select the correct statement among the given statements?
   a) Once class could implement only one interface
   b) Properties could be declared inside an interface
   c) Interface cannot be inherited
   d) None of the above mentioned

14) Choose the base class for string() method:
   a) System.Array
   b) System.char
   c) System.String
   d) None of the mentioned

Q.2 Write the answer of the following questions (any two): 14
   a) What is .Net framework? Illustrate overview of .Net Framework.
   b) Explain different control statement in C#.
   c) What are different data types in c#? Explain in detail.

Q.3 Write the answer of the following questions (any two): 14
   a) What is Abstract class and sealed class? Explain with example.
   b) What is Exception? How to use try, catch, throw keywords.
   c) What is method overloading and overriding? Explain in detail.

Q.4 Write the answer of the following questions (any two): 14
   a) What is Tread? Explain concept of threading with example.
   b) Explain different Dialog controls in c#.
   c) What are different types of Assemblies?

Q.5 a) What is Stored procedure? How to use stored procedure in program block give example. 07
   b) What is stream? Explain how to read and write Console I/O data. 07

Q.6 a) Create a windows application for deleting record using ADO.NET. 07
   b) What is Windows Service? Explain in detail. 07

Q.7 Write short notes on the following (Any two) 14
   a) Generic classes
   b) Anonymous methods
   c) Enumeration

Seat No.

B.C.A. (Semester - V) (CGPA) Examination Oct/Nov-2017
LINUX & SHELL PROGRAMMING

Day & Date: Tuesday, 14-11-2017   Max. Marks: 70
Time: 10.30 AM to 01.00 PM

Instructions: 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   Choose the single correct alternatives: **14**

1) _____ command is used to display the operating system name.
    a) os   b) Unix
    c) uname   d) kernel

2) Which option of 1s command used to view file inode number?
    a) –1   b) –inum
    c) –a   d) –i

3) Which of the following is the feature of Linux Operating System?
    a) Multi User   b) Multi Process
    c) Multi-Tasking   d) All the above

4) The kill command is used to terminate premature processes.
    a) True   b) False

5) General syntax of Linux command is _____.
    a) Command [options] [arguments]
    b) Command [arguments] options
    c) Command [arguments] [option]
    d) None of these

6) Which of the following statement is FALSE?
    a) Linux supports multiple users.
    b) Linux is an open source operating system and the source code is shared
    c) Shell takes care of inter process communication
    d) Shell provides the feature of I/O Redirection

7) How do you get help about the command "cp"?
    a) Help cp   b) cd?
    c) Man cp   d) ? cd

8) Which command is not related to the directory?
    a) cd   b) pwd
    c) cat   d) mkdir

9) If a file is removed in Linux using 'rm' then the file can be recovered by a normal user.
    a) True   b) False

10) Any file's attribute information is stored in which structure on the disk.
    a) Inode block   b) Data blocks
    c) File blocks   d) Directory file

11) While executing a command, the shell loads a special program to take care of the execution.
    a) True   b) False

12) Which command is used to debug a shell script program?
    a) –s   b) –x
    c) debug   d) db

13) Shell is an interface between Kernel and Hardware.
    a) True   b) False

14) _____ is not related to the Linux file system.
    a) /bin   b) /dev
    c) /admin   d) /etc

Q.2	**a)**	Explain KDE and GNOME	**05**
	b)	Describe the structure of i-node block.	**05**
	c)	Differentiate foreground and background jobs.	**04**
Q.3	**a)**	Explain mount command with suitable example.	**05**
	b)	Explain ping and finger command with suitable example.	**05**
	c)	List out different types of security provided by Linux.	**04**
Q.4	**a)**	Write a shell program to print a multiplication table of a number given from command line.	**05**
	b)	Explain find command with suitable example.	**05**
	c)	Write a note on LDAP.	**04**
Q.5		**Answer the following:**	
	a)	Write briefly on fgrep and sort commands with examples.	**07**
	b)	Write a script to display all hard links and soft links from a current directory.	**07**
Q.6		**Answer the following:**	
	a)	List the different characteristics of vi editor and explain the command mode.	**07**
	b)	How to provide permission to a file with suitable example?	**07**
Q.7		**Write short notes on the following (Any two)**	**14**
	a)	Archive and File compression.	
	b)	Configuration of Apache and MySQL.	
	c)	NFS and NIS.	

Seat No.	

B.C.A. (Semester - V) (CGPA) Examination Oct/Nov-2017
INTRODUCTION TO DATA MINING & WAREHOUSING

Day & Date: Thursday, 16-11-2017   Max. Marks: 70
Time: 10.30 AM to 01.00 PM

Instructions: 1) All questions are compulsory.
                    2) All questions carry equal marks.

Q.1   Choose the correct alternatives: **14**

1) _____ is a subject-oriented, integrated, time-variant, nonvolatile collection of data in support of management decisions.
   a) Data Mining   b) Data Warehousing
   c) Web Mining   d) Text Mining

2) The data Warehouse is _____.
   a) read only   b) write only
   c) read write only   d) None

3) The time horizon in Data warehouse is usually _____.
   a) 1-2 years   b) 3-4 years
   c) 5-6 years   d) 5-10 years

4) _____ describes the data contained in the data warehouse.
   a) Relational data   b) Operational data
   c) Metadata   d) Informational data

5) _____ predicts future trends & behaviors, allowing business mangers to make proactive, knowledge-driven decisions.
   a) Data warehouse   b) Data mining
   c) Datamarts   d) Metadata

6) _____ databases are owned by particular departments or business groups.
   a) Informational
   b) Operational
   c) Both Informational and Operational
   d) Flat

7) The star schema is composed of _____ fact table.
   a) One   b) Two
   c) Three   d) Four

8) Record cannot be update in _____.
   a) OLTP   b) Files
   c) RDBMS   d) Data warehouse

9) _____ is a good alternative to the star schema.
   a) Star schema   b) Snowflake schema
   c) Fact constellation   d) Star-snowflake schema

10) Data transformation includes _____.
    a) A process to change data from a detailed level to a summary level.
    b) A process to change data from a summary level to a detailed level.
    c) Joining data from one source into various sources of data.
    d) Separating data from one source into various sources of data.

11) Fact tables are _____.
   a) Completely demoralized
   b) Partially demoralized
   c) Completely normalized
   d) Partially normalized

12) _____ is the goal of data mining.
   a) To explain some observed event or condition.
   b) To confirm that data exists
   c) To analyze data for expected relationships.
   d) To create a new data warehouse.

13) Query tool is meant for _____.
   a) Data acquisition
   b) Information delivery
   c) Information exchange
   d) Communication

14) Classification rules are extracted from _____.
   a) Root node
   b) Decision tree
   c) Siblings
   d) Branches

Q.2	**a)**	What is data warehouse metadata?	**07**
	b)	Explain the differences between star and snowflake schema.	**07**
Q.3	**a)**	List the characteristics of a data ware house.	**07**
	b)	Compare OLTP and OLAP Systems.	**07**
Q.4	**Attempt the following. (Any two)**		**14**
	a)	What is mean by audio data mining?	
	b)	Differentiate between fact table and dimension table.	
	c)	What is descriptive and predictive data mining?	
Q.5	**Attempt the following. (Any two)**		**14**
	a)	What is the need for preprocessing the data?	
	b)	What is dimensionality reduction?	
	c)	What is data cleaning?	

Seat No.	

B.C.A. (Semester - V) (CGPA) Examination Oct/Nov- 2017
MANAGEMENT INFORMATION SYSTEM

Day & Date: Saturday, 18 -11-2017   Max. Marks: 70
Time: 10.30 AM to 01.00 PM

Instructions: 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   **Choose the correct alternatives:**   **14**
1) Internal information for MIS may come from anyone of the following department.
   a) Customer Care Department   b) HR Department
   c) Marketing Department   d) Production Department

2) BIS stands for _____.
   a) Business Interest System   b) Business Intelligence System
   c) Business Information System   d) Business Improvement System

3) _____ is basic bone of any organization.
   a) Data   b) User
   c) People   d) information

4) DSS for any group known as _____.
   a) GSS   b) NDSS
   c) GDSS   d) EIS

5) ESS stands for _____.
   a) Executive Support System   b) Executive Standard System
   c) Executive Short System   d) Executive Status System

6) The information of MIS comes from the _____.
   a) Internal source   b) External source
   c) Both internal and external   d) None of the above

7) KMS long form of _____.
   a) Knowledge Measurement System
   b) Knowledge Management System
   c) Knowledge message
   d) Knowledge Movement System

8) The basic nature of system refers to _____.
   a) Flow of information   b) Data
   c) Information   d) Events occurrence

9) AI stands for _____.
   a) Art information
   b) Artificial intelligence
   c) Access information
   d) Annual income

10) EDI stands for _____.
   a) Electronic Data Interchange
   b) Educational Data Interchange
   c) Electronic Data Interface
   d) Educational Data Interface

11) Information system specialists also called as _____.
   a) User consultant
   b) User friendly
   c) User expert
   d) User manager

12) CRM stands for _____.
   a) Customer Relationship Management
   b) Customer Resource Management
   c) Customer Rewards Management
   d) None of these

13) MIS normally found in manufacturing organization will not be suitable in _____.
   a) Service sector
   b) Banking sector
   c) Agriculture sector
   d) All of the above

14) HRD stands for _____.
   a) Human Revenue Database
   b) Human Republic Database
   c) Human Resource Development
   d) Human Resource Database

Q.2 **Attempt any two from following.**
   a) What is DSS? Explain classification of DSS. **07**
   b) What is role of manager in organization? **07**
   c) What is decision? Explain types of decision. **07**

Q.3 **Attempt any two from following.**
   a) What is MIS? Explain characteristics of computerized MIS. **07**
   b) Write security of an information system. **07**
   c) What is knowledge Management System? Explain levels in knowledge **07**
   Management System.

Q.4 **Attempt any two from following**
   a) What is EIS? Explain components of EIS? **07**
   b) Write advantages and disadvantages of ERP **07**
   c) How MIS is applicable in Airline Industry? **07**

Q.5 **a)** What is Organization? Explain characteristics of organization. **07**
   b) What is CRM? Explain advantages and disadvantages of CRM. **07**

Q.6 **a)** What is SCM? Write scope and process of SCM. **07**
   b) What is BIS? Explain benefits and approaches of BIS. **07**

Q.7 **Write short notes on the following (Any two)** **14**
   a) Various sources of knowledge for business
   b) Management control through reporting
   c) Application of MIS in Manufacturing
   d) Production Management.

Seat No.	

B.C.A. (Semester - VI) (New) (CGPA) Examination Oct/ Nov-2017
ADVANCED JAVA - II

Day & Date: Friday, 10-11-2017   Max. Marks: 70
Time: 10.30 AM to 01.00 PM

Instructions: 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 is / are true about JSP?
     a) Fast development   b) No need to compile
     c) No need to redeploy   d) All of these

2) Hibernate framework was started in _____.
     a) 2001   b) 2002
     c) 2003   d) 2004

3) All Internationalization classes are defined in the _____package.
     a) java.inter.*;   b) java.util.*;
     c) java.lang.*;   d) java.io.*;

4) Which of the following is correct about dependency injection?
     a) It helps in decoupling application objects from each other.
     b) It helps in deciding the dependencies of objects.
     c) It stores objects states in database.
     d) It stores objects states in file system

5) Which of the following are the valid scopes in JSP?
     a) request, page, session, application
     b) request, page, session, global
     c) response, page, session, application
     d) request, page, context, application

6) "<% %>" this syntax in JSP is called as _____.
     a) Scriplates   b) Actions
     c) Expression   d) Declarative

Q.1 B) State whether True or False   **04**
1) All the HB annotations are defined in the org.hibernate.annotation package.
2) JSP Action tag is used display value of variable or message.
3) Spring is a *lightweight* framework.
4) ORM stands for Object relational mapping.

Q.1 C) Fill in the blanks.   **04**
1) In JSP _____ objects is used to get initialization parameter from the web.xml.
2) JSTL stands for _____.
3) WAP stands for _____.
4) Dialect classes of hibernate are defined in _____ package.

Q.2 **Attempt any <u>two </u>of the followings:** **14**
   a) Explain WAP core services.
   b) Explain RowMapper interface of Spring JDBCTemplate.
   c) Write a JSP page to check given no is palindrome or not.

Q.3 **Attempt any <u>two </u>of the followings:** **14**
   a) Explain TPC using annotation with suitable.
   b) Explain JSP architecture.
   c) Write a steps to create the spring application.

Q.4 **Attempt any <u>two </u>of the followings:** **14**
   a) Write a program that use of 'Internationalization' .in JSP.
   b) Explain session in JSP.
   c) Explain Spring architecture.

Q.5 **a)** Write a program to store employee information such **07**
       As eid,ename,salary,designation,etc in hibernate
   b) Explain JSTL formatting tags. **07**

Q.6 **a)** Explain collectionMapping of hibernate with suitable example. **07**
   b) What is dependency injection? Explain types of dependency injection in **07**
       spring.

Q.7 **Write short notes on following (Any two)** **14**
   a) Custom tag in JSP
   b) Hibernate Annotation.
   c) WAP model and architecture.

Seat No.

Set **P**

B.C.A. (Semester - VI) (New) (CGPA) Examination Oct/ Nov-2017
CYBER LAWS AND SECURITY CONTROL

Day & Date: Monday, 13-11-2017   Max. Marks: 70
Time: 10.30 AM to 01.00 PM

Instructions: 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　Choose correct alternatives:　　　　　　　　　　　　　　　　　　**14**
　1) Conversion of plain text to unreadable text is called as _____.
　　a) Encryption　　　　　　　　　b) Decryption
　　c) Both a & b　　　　　　　　　d) Cryptography

　2) A digital signature is _____.
　　a) A bit string giving identity of a correspondent
　　b) A unique identification of a sender
　　c) An authentication of an electronic record by trying it uniquely to a key only a sender knows
　　d) An encrypted signature of a sender

　3) Authentication is _____.
　　a) Modification
　　b) Insertion
　　c) Hard to assure identity of user on a remote system
　　d) None of the above

　4) The Uniform Electronic Commerce Act (UECA) was modeled after the ____.
　　a) E-Sign Law
　　b) UNCITRAL Model Law on E-Commerce
　　c) UNCITRAL Model Law on Electronic Signatures
　　d) None of these

　5) EDI over internet users_____.
　　a) MIME to attach EDI forms to e-mail messages
　　b) FTP to send business forms
　　c) HTTP to send business forms
　　d) SGML to send business forms

　6) An Electronic cash payment is customer buys several electronic coins which are digitally signed by coin issuing bank.
　　a) True　　　　　　　　　　　　b) False

7) The one key for encryption and another key for decryption is called_____ cryptography.
   a) Symmetric
   b) Asymmetric
   c) Both a & b
   d) None of these

8) DES stands for Digital Encoded Standard.
   a) True
   b) False

9) _____ is legal authority to issue the digital certificate.
   a) CEO of company
   b) Government of India
   c) Certificate Authority
   d) None of these

10) _____ is not threats in security.
    a) Active
    b) Passive
    c) Digital Signature
    d) None of these

11) _____theft is the types of cybercrime.
    a) Data
    b) Information
    c) Both a & b
    d) None of these

12) The altering of data so that it is not usable unless the changes are undone is called encryption.
    a) True
    b) False

13) _____ activity is not supported by E-commerce tread cycle.
    a) Presales
    b) After Sales
    c) Both a & b
    d) None of these

14) The Electronic Commerce means purchasing of electrical goods.
    a) True
    b) False

Q.2	a) What is data protection? Why it is necessary.	05
	b) Explain various threats of security in detail.	05
	c) Write note on Data encryption.	04

Q.3	a) What is digital signature? Where is it used?	05
	b) Write down difference between traditional commerce and E-commerce.	05
	c) Explain the need of security and control	04

Q.4	a) Explain the Scope of Electronic commerce.	05
	b) What is hardware and software security? Why it is important	05
	c) Explain the various security aspects in cyber law.	04

Q.5	a) The various certifying authorities in digital signature explain in detail.	07
	b) Explain the key elements certification and monitoring prevention of crimes in Information Technology Act-2000 in detail.	07

Q.6	a) Explain various applications of UNCITRAL Model law.	07
	b) What is Security? Explain different types of Security	07

Q.7 **Write short notes on (Solve Any two)**   **14**
a) Authentication and Authorization.
b) Ethics for computer user.
c) Security audit.

Seat No.

B.C.A. (Semester - VI) (New) (CGPA) Examination Oct/Nov-2017
SOFTWARE PROJECT MANAGEMENT

Day & Date: Wednesday, 15-11-2017   Max. Marks: 70
Time: 10.30 AM to 01.00 PM

Instructions: 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   **Choose the single correct alternatives:**   **14**

1) A Plan takes _____ and converts it to real Activities.
   a) Methodology   b) Method
   c) Activity   d) Time

2) The ISO 9126 sets the standard for _____.
   a) Software Processes   b) Project Progress
   c) Software Planning   d) Software Quality

3) Steps _____ to _____ will need to be repeated for each activity in the project.
   a) 4,8   b) 7,9
   c) 5,8   d) 2,4

4) _____ is a working model of one or more aspects of the projected system.
   a) Evolutionary approach   b) Incremental delivery
   c) Conceptual Integrity   d) Prototype

5) Dummy activities are shown with _____ lines on the network diagram
   a) Dashed Lines   b) Dotted Lines
   c) Double line   d) Arrow lines

6) Effort = (System Size) X (Productivity rate) is the formula to calculate efforts in _____.
   a) Function points   b) KLOC
   c) Full Function Points   d) Cost

7) RAG Reporting is an approach to _____.
   a) Analyzing Data   b) Splitting Data
   c) Collection Data   d) Separating Data

8) COCOMO is _____.
   a) Construction Cosmic Code   b) Cosmic Consortium Model
   c) Constructive Cost Model   d) Cognitive Cost Modeling

9) _____ is / are the Objective/s of Activity Planning
   a) Feasibility Assessment   b) Coordination
   c) A and b   d) None of these

10) _____ is the method of improving motivation.
   a) Providing Feedback   b) Stress
   c) Interview   d) Skill Variety

11) Risk analysis and Prioritization is the _____ phase in Risk planning
    a) 1st b) 3rd
    c) 2nd d) None of these

12) Backward pass means _____.
    a) Calculating latest date to start and end activity
    b) Calculating dates to start and end activity time
    c) Calculating time period to start and end activity
    d) Calculating end date of an activity

13) _____ is one of the visualizing Progress Method
    a) Graph   b) Pi Charts
    c) The Timeline   d) Slip chart

14) PERT means _____.
    a) Process Evaluation Review Technique
    b) Program Evaluation Review Technique
    c) Payback Evaluation Reframing Technique
    d) Periodical Evaluation and Review Technique

Q.2 Write the answer of the following (any 2)   **14**
    a) Explain Plan, Method And Methodology with proper examples.
    b) What is Contract management? Explain types of Contracts.
    c) Explain Expert judgment and Estimation by Analogy.

Q.3 Write the answer of the following (any 2)   **14**
    a) What is an Activity? Explain Objectives of Activity Planning.
    b) What is Organization behavior? Explain Motivation and Selecting right persons for job.
    c) Write a note on Identifying the critical path.

Q.4 Write the answer of the following (any 2)   **14**
    a) Explain and differentiate between Technical and Strategic Assessment
    b) Explain different ways of visualizing progress.
    c) Explain Waterfall Process Model.

Q.5 Write the answer of the following   **14**
    a) Explain techniques to enhance software quality.
    b) Explain Oldham - Hackman Job Characteristics Model.

Q.6 Write the answer of the following   **14**
    a) Explain Project planning steps with suitable diagram
    b) Explain Risk Planning and controlling with proper example.

Q.7 Write short notes on the following (Any two)   **14**
    a) Forward and Backward Pass
    b) Resource Allocation
    c) Process Model Selection

Seat No.

B.C.A. (Semester - VI) (New) (CGPA) Examination Oct/Nov-2017
WEB TECHNOLOGY - III

Day & Date: Friday, 17-11-2017   Max. Marks: 70
Time: 10.30 AM to 01.00 PM

Instructions: 1) All Questions are compulsory.
2) All Questions carry equal marks.

Q.1   Choose the correct alternatives: **14**

1) Default event for Checkbox control is _____.
   a) Click   b) Select
   c) OnCheckedChange   d) None of these

2) _____ property is used for password textbox
   a) password   b) textpass
   c) textmode   d) none of these

3) Postback occurs in which of the following forms
   a) Winforms   b) HTMLForms
   c) Webforms   d) None of above

4) The first event triggers in an aspx page is _____.
   a) Page_init()   b) Page_load()
   c) Page_click()   d) None of these

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

6) The CancelButton property belongs to which objects _____
   a) Button   b) Form
   c) Label   d) Timer

7) Which method of a ListBox will remove just one item at a time?
   a) Items.Remove At   b) Item.Remove At
   c) Items.Clear At   d) Items.Clear

8) Setting the SelectedIndex property of a ListBox to -1 will _____
   a) Cause an error.   b) Cannot be done.
   c) De-select any selected item   d) Both a and b

9) Which is the file extension used for an ASP.NET file?
   a) asn   b) asp
   c) aspn   d) aspx

10) Which set of symbols are used to signify the presence of ASP.NET code?
    a) <@   b) <#
    c) <$ d) <%

11) Which user action will not generate a server-side event?
    a) Mouse Move   b) Text Change
    c) Button Click   d) Both a and b

12) Which is an example of a web document?
   a) Server script
   b) Web page
   c) Client browser
   d) Both a and b

13) Where does a web application reside?
   a) Web client
   b) Web server
   c) Visual Studio .NET
   d) Both a and b

14) ASP.NET separates the HTML output from program logic using a feature named as
   a) Exception
   b) Code-behind
   c) Code-front
   d) None of the above

Q.2	**a)**	What is a web service?	**07**
	b)	List and describe the objectives of .Net framework.	**07**
Q.3	**a)**	What are Validation Controls? List its types and explain them briefly.	**07**
	b)	What are Rich Controls? Explain FileUpload Control in brief.	**07**

Q.4   Attempt the following (any two)   14
   a) Explain the Tree View and Menu Control in brief
   b) Create Web form in Asp .Net for opening a new account in bank using Asp Controls. Also provide appropriate validations.
   c) Explain SOAP

Q.5   Attempt the following (any Two)   14
   a) Explain page processing sequence of ASP.NET
   b) What is state in ASP.NET? Explain each state in detail.
   c) What is response? Explain response object with its properties and methods.

Seat No.

B.C.A. (Semester - VI) (Old) Examination Oct/ Nov-2017
ADVANCED JAVA - II

Day & Date: Friday, 10-11-2017   Max. Marks: 80
Time: 10.30 AM to 01.30 PM

Instructions: 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) A JSP is transformed into _____.
   a) Java applet   b) Java servlet
   c) Both a and b   d) None of these

2) Which programming language or scripting language does Java Server Pages support?
   a) VBScript   b) Jscript
   c) Java   d) All of these

3) In JSP Action tags which tags are used for bean development?
   a) jsp:useBean   b) jsp:setProperty
   c) jsp:getProperty   d) All of these

4) An Object Relational Mapping tool simplifies which of these?
   a) Data creation   b) Data manipulation
   c) Data access   d) All of these

5) In Hibernate inheritance mapping which is used when tables are created as per class but related by foreign key, so there are no duplicate columns?
   a) Table per Hierarchy   b) Table Per Concrete Class
   c) Table Per Subclass   d) None of these

6) We can do One to One mapping in hibernate by _____
   a) By many-to-one element   b) By one-to-one element
   c) Both a and b   d) None of these

7) What is Dependency Injection?
   a) It is a design pattern which implements Inversion of Control for software applications.
   b) It is one of the spring module.
   c) It is a technique to get dependencies of any project
   d) It is used to promote tight coupling in code.

8) Which class is used to map a database row to a java object in spring?
   a) ResultSet   b) RowMapper
   c) RowSetMapper   d) ResultSetMapper

Q.1 B) Fill in the blanks: 04

1) In JSP _____ exception that is typically a user error or a problem that cannot be foreseen by the programmer
2) _____ tag is used to execute java source code in JSP
3) _____ class can be used to execute Sql queries in spring
4) _____ is used to get object of a service in spring framework.

Q.1 C) State True/False: 04

1) The Jsp include directive is used to include the contents of the resource.
2) JSP's does not provide better facilities for separation of page code and template data by means of Java beans, EJBs and custom tag libraries.
3) Hibernate Query Language (HQL) is not same as Structured Query Language (SQL).
4) A bean encapsulates many objects into one object, so we can access this object from multiple places.

Q.2 **a)** Explain the life cycle of JSP. 08
b) Explain the architecture of hibernate. 08

Q.3 **a)** Explain the dependence injection by constructor with example? 08
b) Explain JDBC template in spring with example. 08

Q.4 **a)** Write a program to demonstrate jsp:include and jsp:forward action tag. 08
b) Explain the architecture of WAP. 08

Q.5 **a)** Explain the JSTL core tags in JSP with example. 08
b) Write a program to insert Student record and display using hibernate. 08

Q.6 **a)** Explain Table per Concrete (TPC) inheritance mapping with example. 08
b) Write a program to fetch employee records by using RowMapper. 08

Q.7 Write short notes on (Any Four) 16

a) One-to-many mapping in hibernate.
b) Applications WAP
c) Advantages of JSTL over scriptlet.
d) Request and response implicit objects in jsp.
e) Inheritance bean in spring.

Seat No.

B.C.A. (Semester - VI) (Old) Examination Oct/ Nov-2017
CYBER LAWS AND SECURITY CONTROL

Day & Date: Monday, 13-11-2017   Max. Marks: 80
Time: 10.30 AM to 01.30 PM

Instructions: 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) The Indian parliament passed the IT bill in the year.
   a) 2008   b) 2006
   c) 2000   d) 2003

2) Process of transferring plain text to unreadable text.
   a) Encryption   b) Decryption
   c) Cryptography   d) None of these

3) As per IT Act _____ cannot be in electronic form.
   a) Form   b) License
   c) Cheque   d) Records

4) Super market use _____ for transaction with their suppliers.
   a) EDI   b) E-Market
   c) E-Commerce   d) T-Commerce

5) _____ security is related to provide the protection to different devices.
   a) Physical   b) Logical
   c) Both a & b   d) None of these

6) _____ backup all selected data.
   a) Full   b) Copy
   c) Incremental   d) None of these

7) IT Act 2000 made amendment to which of the following existing law?
   a) IPC   b) Indian Evident Act
   c) Bankers Book Evident Act   d) All of these

8) _____ is a rights over creation of the mind both artistic & commercial
   a) Intellectual Property   b) Copyright
   c) Patent   d) Trademark

Q.1 B) State true & false   **08**

1) Credit transaction are regular transaction in trade cycle.
2) Cyber Law pertains to just about every activity performed on a computer.
3) Pirated software means software without license.
4) Software privacy is an victimless crime.
5) Digital Certificate used only private key.
6) Private Key used for encryption.
7) Cyber Crime refers to all the activities done with criminal intent in the cyber space.
8) Linux is public domain software.

Q.2 **a)** Write down difference between traditional commerce & E-Commerce. **06**
    b) Explain Information society. **06**
    c) Write a short note on Data Encryption. **04**

Q.3 **a)** Explain duties of subscriber in detail. **06**
    b) Explain intellectual property aspect. **06**
    c) Write a short note on Copyright. **04**

Q.4 **a)** Explain cryptography with diagram. **06**
    b) Explain security & its type. **06**
    c) Write a short note on Security Audit. **04**

Q.5 **a)** Explain digital signature with diagram. **08**
    b) Explain backup & its type. **08**

Q.6 **a)** Explain the scope & objectives of Model Law. **08**
    b) Explain IT Act 2000 & its areas. **08**

Q.7 **Write short notes on (Any Four)** **16**
    a) Authentication
    b) Internet Application Services
    c) Theft of information
    d) Cyber Crime
    e) Objective of E-Commerce

Seat No.

Set **P**

B.C.A. (Semester - VI) (Old) Examination Oct/Nov-2017
SOFTWARE PROJECT MANAGEMENT

Day & Date: Wednesday, 15-11-2017   Max. Marks: 80
Time: 10.30 AM to 01.30 PM

Instructions: 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 correct alternatives: 08

1) _____ has overall responsibility for setting, monitoring and modifying objectives.
   a) Developer   b) Project steering committee
   c) Designer   d) Manager

2) WBS stands for _____.
   a) Worked Break Structure   b) Work Breakdown Structure
   c) Working Break System   d) Work Basic System

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

4) _____ pass is carried out to calculate the earliest dates on which each activity may be started and completed.
   a) The backward pass   b) The forward pass
   c) The back-work pass   d) Both b and c

5) Which of these software characteristics are used to determine the scope of a software project?
   a) Only performance
   b) Only Context
   c) Only Functional
   d) Information objectives, function, performance

6) _____ model is also known as once-through model..
   a) Waterfall   b) V-Process
   c) RAD   d) Both a and c

7) CPM stands for _____.
   a) Critical Path Method   b) Critical Program Method
   c) Complex Path Method   d) Combine Path Method

8) Booch suggests that there are two levels of development the _____ process and the _____ process.
   a) Macro, micro   b) Minimum, maximum
   c) Min, max   d) Main, sub

Q.1 B) **State whether True or False** 08
1) Software project management begins with a set of activities that are collectively called Project Planning.
2) SSADM stand for structured system analysis and design
3) Stakeholders are peoples who have an interest in the project.
4) Elapsed time is the time between the start and end of a task.
5) Gantt chart is not simplest and oldest technique for tracking project progress.
6) The waterfall model begins with feasibility study.
7) Bottom-up estimating methods can be generally divided into bottom-up and top-down approaches.
8) RAD stand for rapid application development.

Q.2 a) What is risk management? Explain the planning in details. 06
b) Explain the Oldham-Hackman job characteristics model. 06
c) What is management? 04

Q.3 a) Explain V-Process model in details. 06
b) What are the activities covered by software project management? 06
c) What is Requirements Specification? 04

Q.4 a) Where are estimates done of software project? 06
b) Explain Plans, methods and methodologies in details. 06
c) Explain the function points Mark II. 04

Q.5 a) Explain cost benefit evaluation techniques in details. 08
b) What is software quality? Explain its practical measures. 08

Q.6 a) Explain the step wise project planning in details. 08
b) Explain the forward pass and backward pass in details. 08

Q.7 **Note on (any four)** 16
a) Setting Objectives and Goals of project
b) Stakeholders
c) Spiral Model
d) Cash flow forecasting
e) Motivation

Seat No.

B.C.A. (Semester - VI) (Old) Examination Oct/Nov-2017
WED TECHNOLOGY - III

Day & Date: Friday, 17-11-2017   Max. Marks: 80
Time: 10.30 AM to 01.30 PM

Instructions: 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 questions carry equal marks.

Q.1 Choose the single correct alternatives: **16**

1) Which client-side technique can be disabled by the end-user?
   a) Cookies   b) Query string
   c) View state   d) Both a and b

2) What symbol specifies the beginning of a query string?
   a) @   b) #
   c) $ d) ?

3) Which property is used to name a web control?
   a) ControlName   b) Designation
   c) ID   d) Name

4) When an ASP.NET file is placed on an IIS server and viewed through a browser, the resulting HTML page contains:
   a) All ASP.NET code
   b) As much ASP.NET code as is in the ASP.NET file
   c) A mix of ASP.NET and HTML code
   d) All HTML code

5) Which are the standard prefixes for the text box and label controls respectively?
   a) tex and lbl   b) tex and lab
   c) txb and lbl   d) txb and lab

6) Which is not a property of the Common control class?
   a) Show   b) BackColor
   c) Font   d) ForeColor

7) The CancelButton property belongs to which object?
   a) Button   b) Form
   c) Label   d) Text Box

8) Setting the SelectedIndex property of a List Box to -1 will _____
   a) cause an error   b) cannot be done
   c) de-select any selected item   d) both a and b

9) Which is the file extension used for an ASP.NET file?
   a) asn   b) asp
   c) aspn   d) aspx

10) Which set of symbols are used to signify the presence of ASP.NET code?
   a) <@   b) <#
   c) <$ d) <%

11) Which is not a common control event?
   a) Click
   b) SingleClick
   c) DoubleClick
   d) MouseMove

12) Which is an example of a web document?
   a) Server script
   b) Web page
   c) Client browser
   d) Both a and b

13) Where does a web application reside?
   a) Web client
   b) Web server
   c) Visual Studio.NET
   d) Both a and b

14) The Tick event is found only in which object?
   a) Form
   b) Button
   c) Text Box
   d) Timer

15) The name of the class used to programmatically create a font dialog box is
   a) Font.
   b) Font Box.
   c) Font Dialog.
   d) Font Display.

16) Which OpenFileDialog control property specifies the choices in the "Files of type" dropdown box?
   a) FileName
   b) FileNames
   c) FileType
   d) Filter

Q.2	a)	What is State Management? Explain application state with example	06
	b)	Explain Menu & Multiview controls with example	06
	c)	Explain listbox control in details.	04
Q.3	a)	What is master page? Give example of nested master page.	06
	b)	Explain various types of Authentication in detail	06
	c)	Explain five properties of CheckBoxList Control with example.	04
Q.4	a)	What is validation? Explain Range Validation Controls in detail.	06
	b)	Explain Update Panel and Update Progress control.	06
	c)	Explain XML File with example?	04
Q.5	a)	Explain Silverlight architecture in detail.	08
	b)	Different between Web.Config and Machine.config.	08
Q.6	a)	Explain self-page and cross page posting in details.	08
	b)	Explain Global.Asax File in brief	08
Q.7		**Write short notes on (Any four)**	**16**
	a)	SOAP and WSDL	
	b)	Page Directive	
	c)	View State	
	d)	Passport Authentication	
	e)	AJAX	