Seat No.

B.C.A. (Semester - IV) (Old) (CGPA) Examination Nov/Dec-2018
SOFTWARE ENGINEERING

Time: 2½ Hours | Max. Marks: 70

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

Q.1 A) Choose correct alternatives. 07

1) A _____is a visual means for showing how a rule (or set of rules) applies to repetitive situations.
   a) Decision Table
   b) Structured chart
   c) Flow Chart
   d) ERD

2) _____is quality of software in which for incorrect input also performs well.
   a) Reliability
   b) Robustness
   c) Correctness
   d) None of these

3) The output of one subsystem is the required input for another subsystem is called?
   a) Interdependence
   b) Independency
   c) Relation
   d) Both A and B

4) Which depicts flow of control in program modules?
   a) Flowchart
   b) DFD
   c) Both A & B
   d) None of these

5) Which type of DFD concentrates on the system process and flow of data in the system?
   a) Logical DFD
   b) Physical DFD
   c) Both A & B
   d) None of these

6) The most creative and challenging phase of' the system life cycle is _____
   a) Requirement Analysis
   b) System Design
   c) System Testing
   d) System Evaluation

7) To successfully complete a project, the _____ must monitor programs in relation to time, cost and quality.
   a) Analyst
   b) Programmer
   c) Designer
   d) All of these

Q.1 B) State True or False 04
1) The third normal form (3NF) eliminates transitive dependencies.
2) In reality, a completely closed system is rare.
3) First level DFD contains single process.
4) Organization implies structure and order.

C) Fill in the blanks   **03**
1) _____ testing specifies the behavior of a system or a part of a system.
2) The _____ model is a risk-driven software process model.
3) _____ maintenance involves adjusting the application to changes in the environment.

Q.2   **a)** What is system? Explain various system elements.   **05**
     b) Explain Spiral model in detail.   **05**
     c) Explain system requirement analysis.   **04**

Q.3   **a)** Explain advantages and disadvantages of HIPO.   **05**
     b) Explain Data Flow Diagram with its symbols.   **05**
     c) Write a difference between white box and black box testing.   **04**

Q.4   **a)** What is Flow chart? Write the principles of flowcharting.   **05**
     b) Explain software qualities in details.   **05**
     c) Explain the advantages of prototyping model.   **04**

Q.5   **a)** Explain the various roles of system analyst in detail.   **07**
     b) Draw a CLD and First level DFD for Mark sheet printing system.   **07**

Q.6   **a)** Explain the Fact Finding Techniques in detail.   **07**
     b) Draw Entity Relation Diagram for College Admission System.   **07**

Q.7   **Write short notes on the following (Any two)**   **14**
     a) Data Dictionary
     b) Structured English
     c) Normalization

Seat No.	

B.C.A. (Semester - IV) (Old) (CGPA) Examination Nov/Dec-2018
RDBMS WITH ORACLE

Time: 2½ Hours   Max. Marks: 70

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

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

1) Which of the following is an invalid attribute of an explicit cursor?
   a) % found   b) %notfound.
   c) %open   d) %rowcount

2) A column defined as a primary key can have a NULL.
   a) True   b) False

3) It is possible to modify a datatype of a column when column contains a data.
   a) true   b) False

4) Which SQL statement is used to Modify data in a table?
   a) select   b) update
   c) modify   d) save

5) A procedure stored in the database _____.
   a) In compiled form   b) As source code
   c) Both a and b   d) None of these

6) Delete index command is used to remove an index from the database.
   a) True   b) False

7) Which SQL statement is used to select all records from a table named "Student" where the value of the column "FirstName" starts with "S"?
   a) select * from student where FirstName='S';
   b) select * from student where FirstName='S%';
   c) select * from student where FirstName like 'S%';
   d) select * from student where FirstName like '%S';

8) _____ is date function in SQL.
   a) date   b) system date
   c) datetime   d) sysdate

9) Which of the following is the concatenation operator?
   a) &&   b) ||
   c) +   d) @

10) Which of the following is not a DML statement?
   a) insert   b) update
   c) delete   d) create

11) Secondary key to represent relationship between tables.
   a) True   b) False

12) Which of the following provides a way to select multiple rows of data from the database and then process each row individually?
   a) Triggers   b) Sequences
   c) Cursors   d) Process

13) An order by clause can be used in a sub-query.
   a) True   b) False

14) Which of the following is advantage of view?
   a) To hide complexity of a query
   b) To hide complexity of a calculations
   c) To protect the data from other users
   d) All of these

Q.2	**a)**	What is a DDL statement? Explain in detail.	**05**
	b)	Define foreign key and give its advantages.	**05**
	c)	What is the use of Aggregate functions in Oracle? Give one example.	**04**
Q.3	**a)**	What are sequences? Why it is used? Create a sequence.	**05**
	b)	What is view? Give the syntax for creating a view.	**05**
	c)	What do you mean by GROUP BY Clause? Give suitable example.	**04**
Q.4	**a)**	Explain with example concept of trigger.	**05**
	b)	Give the syntax and example.	**05**
		1) Delete 2) alter	
	c)	What is the difference between drop and truncate? Give its syntax.	**04**
Q.5	**a)**	Describe the concept of PL /SQL function.	**07**
	b)	Write a cursor to display all books having price more than 500 in ascending order of price.	**07**
Q.6	**a)**	Write a package specification and body which contains following.	**07**
		1) Procedure which accept a number and the calculate factorial of given number.	
		2) A function which accept a number and return if it is odd or even.	
	b)	List and explain various constraints used in Oracle.	**07**
Q.7		**Write short note on :-**	**14**
	a)	Parameterized cursor	
	b)	Advantages of packages	
	c)	Relation and attribute	
	d)	Structure of PL/SQL	

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B.C.A. (Semester - IV) (Old) (CGPA) Examination Nov/Dec-2018
OPERATING SYSTEM

Time: 2½ Hours   Max. Marks: 70

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

Q.1 a) Choose the correct alternative.   **09**

1) In a segmentation scheme the logical memory will be divided into _____
   a) Pages   b) Frames
   c) Blocks   d) Segments

2) _____algorithm has lowest page fault rate.
   a) FIFO   b) LRU
   c) Optimal page replacement   d) None of the above

3) _____memory allocation scheme suffers from external fragmentation.
   a) Segmentation   b) Pure demand paging
   c) Swapping   d) Paging

4) _____allows directories to share subdirectories and files.
   a) Acyclic graph   b) Single level directories
   c) Two level directories   d) Tree structure directories

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

6) Resources are allocated to the process on non-sharable basis is _____.
   a) Mutual exclusion   b) Hold and wait
   c) No pre-emption   d) Circular wait

7) The information about all files is kept in _____.
   a) Swap space   b) Operating system
   c) Separate directory structure   d) None

8) Which of the following memory management scheme loads all pages of a program from disk into main memory?
   a) Paging   b) Demand paging
   c) Segmentation   d) Demand segmentation

9) File type can be represented by _____.
   a) File name   b) File extension
   c) File identifier   d) None of the above.

Q.1 b) State True or False:-   **05**

1) Direct access files are used for immediate access to large amounts of information.
2) Wait for graph is used for deadlock avoidance.
3) The Process Control Block is data structure.
4) A page fault occurs when the page is in the memory.
5) Linked allocation method solves external fragmentation.

Q.2 **Answer any two the following.** 14
  a) What is deadlock? Explain 4 necessary conditions of deadlock.
  b) Describe different types of file access methods.
  c) What is swapping? Why does one need to swap areas of memory?

Q.3 **Answer any two of the following.** 14
  a) Explain round robin scheduling algorithm with example.
  b) What is an O.S.? Explain the types of operating system.
  c) Explain Paging in detail.

Q.4 **Answer any two of the following.** 14
  a) Calculate the total number of page fault using optimal page replacement and LRU Page replacement algorithm on following reference string having maximum 03 frames- 7, 0, 1, 2, 0, 3, 0, 4, 2, 3, 0, 3, 2, 1, 2, 0, 1, 7, 0, 1
  b) Explain Inter process communication in detail.
  c) Explain different system components of operating system in detail.

Q.5 **a)** "What are the requirements to solve the critical section problem? 07
  b) Explain any two methods of allocating disk space. 07

Q.6 **a)** State and explain various directory structures. 07
  b) Consider the following snap shot of a system having 5 processes (PO-P4) 07
  and 4 resource types A, B, C, D

Process	Allocation	Max	Available
	A B C D	**A B C D**	**A B C D**
P0	0 0 1 2	0 0 1 2	1 5 2 0
P1	1 0 0 0	1 7 5 0	
P2	1 3 5 4	2 3 5 6	
P3	0 6 3 2	0 6 5 2	
P4	0 0 1 4	0 6 5 6	

Answer the following questions using the banker's algorithm:
  1) What is the content of the matrix Need?
  2) Is the system in a safe state?
  3) If a request from process P1 arrives for (0, 4, 2, 0), can the request be granted immediately?

Q.7 **Write short notes on the following : (Any Two)** 14
  a) Process Control Block
  b) Semaphore
  c) Priority Scheduling

**Seat
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**B.C.A. (Semester - IV) (Old) (CGPA) Examination Nov/Dec-2018
WEB TECHNOLOGY – II**

Time: 2½ Hours   Max. Marks: 70

Instructions: 1) All questions are compulsory.
                         2) Figures to right indicate full marks.

Q.1   Multiple Choice Questions :   **14**
1) PHP Scripts starts with _____
   a) <php> … </php>   b) <?php…?>
   c) ?php … ?php   d) <p>…</p>

2) What is the use of strlen() function in PHP?
   a) It returns the type of a string
   b) It returns the value of a string
   c) It returns the length of a string
   d) It returns the subset value of a string

3) PHP is a _____ typed language.
   a) User   b) Loosely
   c) Server   d) System

4) Where session_ start() function must appear in PHP?
   a) Anywhere   b) With <html> tag
   c) After <html>tag   d) Before <html> tag

5) Variables are case-sensitive in PHP?
   a) True   b) False

6) Which function displays the information about PHP?
   a) Info()   b) sysinfo()
   c) phpinfo()   d) php_info()

7) How PHP files can be accessed?
   a) Through Web Browser   b) Through HTML files
   c) Through Web Server   d) All of Above

8) Data for a cookie stored in_____ in PHP?
   a) In ISP Computer   b) In User's Computer
   c) In Server Computer   d) It depends on PHP Coding

9) Which of the following is the Concatenation Operator in PHP?
   a) + (Plus)   b) .(dot)
   c) & (Ampersand)   d) % (Percentage)

10) Which of the following is not the scope of Variable in PHP?
    a) Local   b) Global
    c) Static   d) Extern

11) Which of the following statements prints in PHP?
    a) Out   b) Write
    c) Echo   d) Display

12) What will be the result of combining a string with another data type in PHP?
    a) int   b) float
    c) string   d) double

13) What does fopen () function do in PHP?
  a) It used to open files in PHP
  b) It used to open Remote Server
  c) It used to open folders in PHP
  d) It used to open Remote Computer

14) What does the PHP Interpreter do?
  a) It translates User Language to System Language
  b) It creates connection between ISP & Server
  c) It processes the HTML and PHP files
  d) All of these

Q.2 a) Answer the following (Any Four)   **08**
  1) What is require() and require once()?
  2) What is abstract keyword?
  3) Explain function
  4) Explain Session
  5) Explain Method Overloading.

b) Write Notes on (any Two)   **06**
  1) Multidimensional array.
  2) String Manipulation functions
  3) Grep Function

Q.3 a) Answer the following (Any two)   **08**
  1) Write note on PHP Datatypes
  2) Write a short note on Basic Regular Expression.
  3) What is a function in PHP? Explain Passing arguments to a function by value.

b) Answer the following (Any One)   **06**
  1) Explain Cookies with proper example
  2) Explain Constructor and Destructor in details.

Q.4 a) Answer the following (Any Two)   **10**
  1) What is inheritance? Explain Final Keyword along with proper example.
  2) Define Array. Explain Associative array with proper example
  3) Explain $_POST, $_GET and $_REQUEST arrays with proper example

b) Answer the following (Any One)   **04**
  1) Explain any 4 math function with proper example in PHP.
  2) What is My SQL? Explain Database Connectivity with PHP.

Q.5 Answer the following (Any two)   **14**
  a) Define inheritance? Explain Types of inheritance in PHP
  b) Write a program to accept a number through text box and print the number is prime or not using PHP.
  c) Explain PHP framework in details.

Seat
No.

B.C.A. (Semester - IV) (Old) (CGPA) Examination Nov/Dec-2018
E-COMMERCE

Time: 2½ Hours   Max. Marks: 70

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

Q.1 A) Select the correct alternatives: **14**
1) E-commerce is not suitable for.
   a) Sale / purchase expensive jewellery and antiques.
   b) Sale/purchase of mobile phone.
   c) Sale/purchase of branded cloths
   d) Online job searching

2) EDI benefits includes
   a) Reduced time   b) Accurate Invoice
   c) EDI payment   d) All of the above

3) Competitive strategy includes
   a) Cost leadership   b) Differentiation
   c) Focus   d) All of the above

4) Perhaps a potential customer's most common path to a previously
   unknown website is through a _____.
   a) Online advertisement   b) Personal contact
   c) Search engine   d) Print document

5) Amazon.com comes under the following model
   a) B2B   b) B2C
   c) C2C   d) C2B

6) CNP stands for
   a) Customer not present   b) Customer not payment
   c) Customer not purchase   d) None of the above

7) The methods of payments for online consumer are
   a) Electronic Cash   b) Credit/Debit
   c) Electronic checks   d) All of the above

Q.1 B) Fill in the blanks:-
1) EDI stands for _____.
2) How the transaction occur in e-commerce _____.
3) The key used to encrypt data is called _____.
4) Which will not harm computer resources _____
5) EFT stands for _____.
6) Unsolicited e-mails is called what_____.
7) The E-payment mechanism widely used in B2B is _____.

Q.2 Write a short note. (Any Two)   **14**
a) Explain the porter's value chain model
b) Explain strategy formulation and implementation planning.
c) Explain the implementation of e-commerce.

Q.3 **Answer the following:** **14**
    a) Future of electronic market.
    b) Explain Airline Booking System

Q.4 **Answer the following:-** **14**
    a) Explain the internet book shop and e-shops
    b) Explain E-visibility.

Q.5 **Answer the following:-** **14**
    a) Explain the web site evaluation model.
    b) Introduction to business strategy

Q.6 **Answer the following:-** **14**
    a) Explain the factors of business environment.
    b) Explain the scope of e-commerce

Q.7 **Write a short note:- (Any two)** **14**
    a) What is credit transaction trade cycle
    b) Define B2C electronic commerce
    c) Internet Banking

Seat No.	

B.C.A. (Semester - V) (Old) (CGPA) Examination Nov/Dec-2018
ADVANCED JAVA – I

Time: 2½ Hours   Max. Marks: 70

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

Q.1 a) Choose the correct alternatives: 07

1) _____is used in web.xml to pass parameters to servletconfig.
   a) <init-param>   b) <context-param>
   c) <web-app>   d) <servlet-mapping>-

2) Which of these methods can be used to output a sting in an applet?
   a) display()   b) print()
   c) drawString()   d) transient()

3) Which of these packages provides classes and interfaces of servlet?
   a) javax.servlet.*   b) javax.servlet.http.*
   c) javax.servlet.api.*   d) both a) and b)

4) Which method is used for an SQL statement that is executed frequently?
   a) prepareStatement()   b) prepareCall()
   c) createStatement()   d) SQLStatement()

5) Which is the immediate super class of an Applet?
   a) Object   b) Window
   c) Panel   d) Component

6) What is/are true about type-4 driver?
   a) Pure and auto downloadable
   b) Also called thin driver
   c) Not required native library to be installed
   d) All of these

7) XML stands for?
   a) Extensible Markup Language
   b) Extended Mashup Language
   c) Extensible Mashup Language
   d) X-Markup Language

b) State whether True or False 07
1) DTD stands for Document Type Definition.
2) In Applet, start() method is used to initialization of an applet.
3) Cookies are maintained at client side or server side.
4) RequestDispatcher interface provide the facility of dispatching the request to another resources it may be html, servlet or jsp.
5) JDBC stands for Java Data Base Connectivity.
6) XML is a self-descriptive language.
7) CGI stands for Common Gateway Interface.

Q.2   Attempt any two of the followings: **14**
   a) What is an Applet? Explain Applet HTML tags.
   b) Write a program to navigation (last, first, next, previous) employeerecords such as eid, ename, designation, DOB, etc from employee table.
   c) What is XML? Explain XML Tree in details.

Q.3   Attempt any two of the followings: **14**
   a) List the advantages and disadvantages of HttpSession.
   b) Explain JDBCcomponents in detail.
   c) Write a program to design an applet that displays the following shapes.
       1) circle
       2) triangle
       3) rectangle
       4) oval
       5) line

Q.4   Attempt any two of the followings: **14**
   a) Explain Applet Life cycle with example.
   b) Explain JDBC statements and methods.
   c) Write a demonstration program to use of include () and forward () method of 'RequestDispatcher'.

Q.5   a) Explain types of JDBC drivers with examples.   **07**
   b) Differentiate between GenericServlet and HttpServlet .   **07**

Q.6   a) What is servlet? Explain features and advantages of servlet.   **07**
   b) What is Cookies? Explain advantages and disadvantages and use of   **07**
       'Cookies' in Servlet with example.

Q.7   Write a short note on the following:- (any 2)   **14**
   a) XMLvalidation
   b) Features of JDBC
   c) servlet API

Seat No.		Set	**P**

B.C.A. (Semester - V) (Old) (CGPA) Examination Nov/Dec-2018
VISUAL PROGRAMMING

Time: 2½ Hours   Max. Marks: 70

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

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

1) _____ event occurs when control is double clicked by mouse.
   a) MouseClick   b) MouseDoubleClick
   c) MouseDown   d) MouseEnter

2) _____ method terminates the execution of thread.
   a) Abort ()   b) Start ()
   c) Suspend ( )   d) Sleep ()

3) _____ 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

4) _____ compiler compiles MSIL into native code. .
   a) Just In Time   b) Language compiler
   c) Dot.Net Compiler   d) Java Compiler

5) Which of the following method is used to remove the element at the specified place in arraylist?
   a) Remove()   b) RemoveAt()
   c) Delete()   d) RemovePosition()

6) _____ control is used to select one option from a set of options.
   a) CheckBox   b) ListBox
   c) RadioButton   d) None of these

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

8) Which of the classes provide the operation of reading from and writing to the console C#.NET?
   a) System.Array   b) System.Output
   c) System.ReadLine   d) System.Console

9) Sealed class cannot be inherited.
   a) True   b) False

10) The try block followed by the multiple catch blocks
    a) True   b) False

11)) JIT stands for just in Time compiler.
    a) True   b) False

12)_____is read only, forward only stream of data from database.
   a) DataReader   b) DataAdapter
   c) Dataset   d) None of above

13) Which of the following converts a type to string in _____
   a) ToInt64   b) ToSbyte
   c) ToSingle   d) ToString

14) Storage locations used by computer memory to store data for usage by an application is _____.
   a) Pointers   b) Constants
   c) Variable   d) None of these

Q.2	**a)**	What is a window service? Explain in detail.	**05**
	b)	What is generic class? Explain with different examples.	**05**
	c)	What is Boxing and Unboxing? Explain with example.	**04**
Q.3	**a)**	What is Interface? How to implement interface explain with example?	**05**
	b)	What is Exception? Explain importance try, catch and finally block.	**05**
	c)	Write note on sealed class.	**04**
Q.4	**a)**	What is Stream? Explain console I/O streams.	**05**
	b)	What is Lambda expression? Explain types of lambda expressions.	**05**
	c)	Give the features of Assemblies.	**04**

Q.5 **a) Explain the term:**   **07**
   1) Checkbox
   2) ComboBox
   3) ListBox
   4) TextBox
   b) Create a Windows application for update existing record using stored   **07**
   procedure.

Q.6 **a)** Create a windows application for adding a new record using stored procedure   **07**
   b) What is event? Explain Multicast event in detail.   **07**

Q.7 **Write short note on the following:- (Any 2)**   **14**
   a) DataSet & DataAdapter
   b) Common Language Runtime(CLR)
   c) Multithreading

Seat No.	

B.C.A. (Semester - V) (Old) (CGPA) Examination Nov/Dec-2018
LINUX AND SHELL PROGRAMMING

Time: 2½ Hours　　　　　　　　　　　　　　　　　　　　　　Max. Marks: 70

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

Q.1　Choose the correct alternatives:　　　　　　　　　　　　　　14

1) In what file can you specify which users are not allowed to access a system via FTP?
   a) /etc/ftpusers　　　　　　　　b) /etc/hosts.deny
   c) /etc/ftpaccess　　　　　　　d) All of the above

2) The location for subdirectories for local programs and executables for user and administrative commands is in _____ directories.
   a) /temp　　　　　　　　　　　　b) /usr
   c) /opt　　　　　　　　　　　　d) /mnt

3) Case statement ends with_____.
   a) end　　　　　　　　　　　　b) end case
   c) esac　　　　　　　　　　　　d) None of these

4) The command "chmod 532 computer" is equivalent to _____.
   a) chmod u=5, g = 3, o = 2 computer
   b) chmod a=532 computer
   c) chmod u=rx, g=wx, o=w computer
   d) chmod ugo=532 computer

5) You need to change some settings on your Apache server. Which is the best tool to use for logging in remotely?
   a) rsh　　　　　　　　　　　　b) ssh
   c) rlogin　　　　　　　　　　　d) telnet

6) How would you avoid accidentally removing files?
   a) rm -i　　　　　　　　　　　b) rm –chk
   c) rm -a　　　　　　　　　　　d) rm –r

7) What is the purpose of the >> operator?
   a) Used to send the output of one command becomes the input of a second command.
   b) Used to send both input and output to the same file.
   c) Used to overwrite the contents of a file.
   d) Used to append data to a file without overwriting it.

8) Which of the following below are true functionalities of shell?
   a) Authenticates user
   b) Interprets commands
   c) Allocates time and memory to programs
   d) Only a and b

9) Which one of the following is used to replace a single character in "vi"?
   a) O　　　　　　　　　　　　b) x
   c) r　　　　　　　　　　　　d) N

10) Which of the following is not a valid file type on Linux
   a) Socket   b) Soft link
   c) Inode   d) FIFO

11) To create a group use _____ command.
   e) Addgroup   f) Groupadd
   g) Create group   h) None of the above

12) Which of the following is generally regarded as the standard GUI for Linux?
   a) Red Hat Desktop   b) CDE
   c) GNOME   d) Star Office

13) Which type of security provide by Linux?
   a) Login & password   b) File permission
   c) File encryption   d) All of these

14) "?" Wild character is used for matching _____ character.
   a) One or more   b) Zero or more
   c) One   d) None of the above

Q.2	**a)**	What is Operating System? Explain Linux OS Structure.	**05**
	b)	How to create archive or tar file in Linux?	**05**
	c)	Explain the different types of Shell.	**04**

Q.3	**a)**	Explain Output of following command.	**05**

   1) ls > lpr
   2) cut -d "|" bca | sort | uniq -d
   3) find -size 10 -print
   4) tail -c14 bca
   5) cut -f 2,7 bca

	b)	What is shell script? Give its Advantages.	**05**
	c)	Write a short note DHCP.	**04**

Q.4	**a)**	Explain the Linux distributions.	**05**
	b)	Explain different boot loaders.	**05**
	c)	Give the use and example of following commands.	**04**

   1) lprm
   2) ping

Q.5	**a)**	Write a shell script to check entered number is Armstrong or not.	**07**
	b)	Explain the job control facilities in Linux. Write the commands for each facility.	**07**

Q.6	**a)**	Write a menu driven shell Script	**07**

   1) To Sort a file by 5 field with 2 column
   2) To assign the Write & Read permission to a owner, add execute to all
   3) To remove directory with its subdirectories.
   4) Find files from current directory by inode number.

	b)	What are the three mode of vi editor and briefly describe Exit mode.	**07**

Q.7	**Write short notes on :- (any two)**	**14**
	a) Role of system administrator	
	b) Mounting and Unmounting Hard drive device	
	c) Group management commands	

Seat No.		Set	P

B.C.A. (Semester - V) (Old) (CGPA) Examination Nov/Dec-2018
INTRODUCTION TO DATA MINING & WAREHOUSING

Time: 2½ Hours   Max. Marks: 70

Instructions: 1) All questions are compulsory.
              2) Figures to the right indicate full marks.

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

1) _____of the following is not a component of a data warehouse.
   a) Metadata   b) Current Detail Data
   c) Component Key   d) Summarised Data

2) The partition of overall data warehouse is _____.
   a) Data Mart   b) Database
   c) Data Cube   d) All of these

3) The next stage to data selection in KDD process _____.
   a) Data Coding   b) Data Cleaning
   c) Data Reporting   d) Data Visualisation

4) In Data warehousing, noise is referred to as _____.
   a) Data Repetition   b) Complex Data
   c) Meta Data   d) Random Error

5) Any subset of a frequent set is a frequent set. This is_____.
   a) Upward closure property
   b) Maximal frequent set
   c) Downward closure property
   d) None of these

6) _____ refers to the process of deriving high-quality information from text.
   a) Text Mining   b) Web Mining
   c) Database Mining   d) Spatial Mining

7) A data warehouse is _____.
   a) Contains only current data
   b) Contains numerous naming conventions and formats
   c) Updated by end users
   d) Organized around important subject areas

8) _____of the following is a predictive model
   a) Association Rule   b) Regression
   c) Summarization   d) Clustering

9) The core of the multidimensional model is the _____, which consists
   of a large set of facts and a number of dimensions.
   a) Data Model   b) Data Structure
   c) Data Cube   d) Dimension Cube

10) Confidence is nothing but subset (s) of an association rule X=>Y is the
    percentage of transactions in the database that contains (X U Y).
    a) True   b) False

11). Distance-related data can be mined using_____ technique.
   a) Web Mining
   b) Unstructured Mining
   c) Text Mining
   d) Spatial Mining

12) Spreadsheet is one of visualization technique used in data warehousing.
   a) True
   b) False

13) 3. Data mining can also applied to data forms such as _____.
   a) Sequence
   b) Network
   c) Data Stream
   d) All of These

14) Snowflakes scheme consist of multiple fact tables.
   a) True
   b) False

Q.2 Answer the following:
   a) What is spatial data mining? Explain in detail.   **07**
   b) What is Data Cube technology? Explain in detail with different operations   **07**
   used in data cube.

Q.3 Answer the following:
   a) What kind of data you can mine? Explain in detail.   **07**
   b) Explain different component used in data warehouse.   **07**

Q.4 Attempt any one:-   **14**
   a) What is data pre-processing? Why it is required? Explain different data
   preprocessing technique in detail.
   b) Explain in detail different significant trends used in data warehouse.

Q.5 Attempt any one:-   **14**
   a) What is Association Rule? What is multidimensional Association rule? Find
   frequent item sets from following table. (Min_support=2/9 and
   min_confidence=7 /9)

Tr. ID	List of Items
T1	M1, M2, M5
T2	M2, M4
T3	M2, M3
T4	M1, M2, M4
T5	M1, M3
T6	M2, M3
T7	M1, M3
T8	M1, M2, M3, M5
T9	M1, M2, M3

   b) Explain Data mining functionality and issues in data mining in detail.

Seat No.	

B.C.A. (Semester - V) (Old) (CGPA) Examination Nov/Dec-2018
MANAGEMENT INFORMATION SYSTEM

Time: 2½ Hours   Max. Marks: 70

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

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

1) _____Is a component.
   a) Hardwark   b) Hardware
   c) Information   d) None

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

3) A manager has _____ overall allocation and distribution of sections.
   a) Command   b) Power
   c) Rules   d) Lead

4) _____ is a set of processes and technology for managing a relationship with customer.
   a) CRM   b) SCM
   c) SMS   d) None

5) _____ is the feature to ensure continuous availability of processing program to request.
   a) Mirroring   b) Redundancy
   c) Load balancing   d) Clustering

6) ES stands for _____
   a) Export System   b) Expert System
   c) Easy System   d) None

7) KMS stands for _____.
   a) Knowledge Measurement System
   b) Knowledge Management System
   c) Knowledge Message System
   d) Knowledge Movement System

8) Strategic information is required _____
   a) Top Management   b) Middle Management
   c) Lower Management   d) None

9) SCM stands for _____
   a) Supply Cyber Management   b) Supply Chain Management
   c) Supply Client Management   d) None of the above

10) _____ is characteristics of information system.
   a) Relevant   b) Environment
   c) Incomplete   d) Unavailable

B) State true or False   04
  1) OLAP stands for On Line Application Processing
  2) The security challenges are met through prevention, limitations and protection.
  3) The lower management is concerned with actual administration.
  4) IS stands for Identification System.

Q.2 Answer the following (Any Two):   14
  a) Describe the decision making life cycle.
  b) Explain the characteristics of DSS.
  c) Explain the levels of organization.

Q.3 Answer the following (Any Two):   14
  a) Write down the role of manager in an organization
  b) Write down the features of an organization.
  c) Explain the features of SCM

Q.4 Answer the following (Any Two):   14
  a) Write down advantages and disadvantages of ESS.
  b) Write down advantages and disadvantages of ERP
  c) Explain the characteristics of computerized MIS.

Q.5 a) Write down advantages and disadvantages of CRM.   07
  b) Explain the applications in Hotel Management   07

Q.6 a) Explain the applications in Hospital Management   07
  b) Explain the System Vulnerability.   07

Q.7 Write a short note on (any Two):   14
  a) Benefits of BIS
  b) Security Control
  c) Objectives and Characteristics of MIS

Seat No.	

B.C.A. (Semester - VI) (CGPA) Examination Nov/Dec- 2018
ADVANCED JAVA – II

Time: 2½ Hours   Max. Marks: 70

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 correct alternatives:**   **14**

1) Which JSTL tag removes the variable from either a first scope or a specified scope
   a) <c:set>   b) <c:remove>
   c) <c:delete>   d) All of these

2) The syntax of scriptlet tag element.
   a) <%@ --- %>   b) <%------- %>
   c) <%= --- %>   d) <%!---- %>

3) All Hibernate annotations are defined in the _____ package.
   a) javax.hibernate.*   b) javax.hibernate.annotation.*
   c) javax.persistence.*   d) None of these

4) _____ object can be used to get initialization parameter from configuration file (web.xml)
   a) application   b) config
   c) both a) and b)   d) none of these

5) WAP is designed for _____.
   a) Internet explorer   b) Web browser
   c) Micro browser   d) Macro browser

6) Which JSP Action Element is used to forward the request and response to another resource.
   a) jsp:include   b) jsp:forward
   c) both (a) and (b)   d) none of these

7) A JSP can be embedded HTML well as XML tags.
   a) True   b) False

8) Which is not a Annotation in Hibernate.
   a) @Entity   b) @Table
   c) @Column   d) @hibenate

9) Which JSP tag is used to run an applet program?
   a) jsp:useBeab   b) jsp:plugin
   c) jsp:applet   d) jsp:set

10) JSP implicit object 'out' is an object of _____class.
    a) JspWriter   b) PrintWriter
    c) OutputStream   d) Object

11)) Which is /are types of Inheritance Mapping in hibernate.
    a) Table per Hierarchy   b) Table per concrete
    c) Table per subclass   d) All of these

12) Which is /are true about spring?
    a) an open source framework   b) a lightweight
    c) developed by Rod Johnson in 2003   d) All of these

13) SimpleJdbcTemplate offers a convenient batch update method in the form of:
    a) Vector   b) Set
    c) Map   d) List

14) TLD stands for Tag Library Definition.
    a) True   b) False

Q.2   Attempt any two of the followings:-   14
    a) Explain JSTL networking core tags with example.
    b) Explain WAP models.
    c) Write a JSP page to display simple 'applet' program.

Q.3   Attempt any two of the followings:-   14
    a) Explain different types of JSP directive elements with example.
    b) What is ORM? Explain use of ORM in details.
    c) What is spring? Explain advantages and disadvantages of spring.

Q.4   Attempt any two of the followings:-   14
    a) Explain Hibernate Annotation.
    b) Write a program to display current date and time in JSP (use custom tag)
    c) Explain JSP life cycle with suitable example.

Q.5 a) Write a program to store student information such as rollno,sname,class,etc.   **07**
           Intostd table using Hibernate.
    b) Explain 'ResultSetExtractor' interface of spring JDBCTemplate.   **07**

Q.6 a) Explain hibernate inheritance mapping.   **07**
    b) Explain steps to create Spring Application with example.   **07**

Q.7 Write short notes on the following (Any two)   14
    a) Advantages of JSP over servlet.
    b) Internationalization
    c) Spring framework

Seat No.	

B.C.A. (Semester - VI) (CGPA) Examination Nov/Dec-2018
CYBER LAWS AND SECURITY CONTROL

Time: 2½ Hours   Max. Marks: 70

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

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

1) It is stealing ideas or creations of others.
   a) Plagiarism   b) Intellectual Property Rights
   c) Piracy   d) All of above

2) Information Technology Act in India is amended in _____.
   a) 2000   b) 2004
   c) 2008   d) 2010

3) Firewalls are used to protect against _____.
   a) Data driven attack   b) Fire attacks
   c) Virus attacks   d) Unauthorized access

4) The altering of data so that it is not usable unless the changes are undone is _____.
   a) Compression   b) Biometric
   c) Encryption   d) None of these

5) Authentication is _____.
   a) Modification   b) Insertion
   c) Identify user   d) None of these

6) Which of the following is a cyber crime against individual?
   a) Email spoofing   b) Cyber Defamation
   c) Cyber stalking   d) All of above

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

8) Scope of e-commerce is _____.
   a) Global   b) Local
   c) Both a and b   d) None of these

9) _____ converted data from plain text to cipher text.
   a) Decryption   b) Encryption
   c) Both a and b   d) EDI

10) Linux is _____ software.
    a) Public Domain   b) Freeware
    c) Both a & b   d) All of above

Q.1 B) State true & false.   **04**

1) Internet commerce cannot used for once-off transactions
2) Data means representation of facts & instructions.
3) Only private key is used in digital certificate
4) Bugs mean software error.

Q.2 **a)** Explain information society. 05
b) Explain digital signature in detail. 05
c) Write a short on copy right 04

Q.3 **a)** What is back-up? Explain its types. 05
b) What is model law? Explain its scope & objective. 05
c) Write a short note on information society 04

Q.4 **a)** What are the duties of subscriber of digital signature certificate? 05
b) What is e-commerce? Explain its application. 05
c) Short note on Cyber crime. 04

Q.5 **a)** Write a note on security aspects and contract aspect of cyber law. 07
b) Explain difference between intranet & extranet security. 07

Q.6 **a)** Explain about encryption techniques & differentiate between secret key encryption & public key encryption. 07
b) Explain information technology 2000. 07

Q.7 **Write short notes on: -**
a) EDI 04
b) Security audit 04
c) Authentication 04
d) E-commerce 02

Seat No.	

B.C.A. (Semester - VI) (CGPA) Examination Nov/Dec-2018
SOFTWARE PROJECT MANAGEMENT

Time: 2½ Hours　　　　　　　　　　　　　　　　　　　Max. Marks: 70

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

Q.1　a)　Choose the correct alternatives:　　　　　　　　　　　　**07**
　　　1) CPM stands for _____.
　　　　a) Critical Path Method　　　　b) Critical Program Method
　　　　c) Complex Path Method　　　　d) Combine Path Method

　　　2) _____ 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 blackwork pass.　　　　d) Both b and c

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

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

　　　5) The return on investment (ROI), also known as _____
　　　　a) Accounting rate of return　　b) Accounting return
　　　　c) Audit rate of return　　　　d) Back investment

　　　6) DSDM stands for _____
　　　　a) Dynamic Study development Method
　　　　b) Diamond System Development Mode
　　　　c) Dynamic System Development Method
　　　　d) Dynamic System Deployed Method

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

**　　b)　State True or False.**　　　　　　　　　　　　　　　　　**07**
　　　1) A plan for an activity must be based on some idea of a method of work.
　　　2) SSADM stand for structured system analysis and design.
　　　3) Software quality assurance is an umbrella activity.
　　　4) The waterfall model not begins with feasibility study.
　　　5) PERT Stands for Program Entry and Review Technique.
　　　6) Gantt chart is not simplest and oldest technique for tracking project progress.
　　　7) Elapsed time is the time between the salt and end of a task.

Q.2	**a)**	What are the activities covered by software project management?	**07**
	b)	What is V-Process model?	**07**
Q.3	**a)**	Where are estimates done of software project?	**07**
	b)	Explain the Plans, Methods and Methodologies.	
Q.4	**a)**	What is risk management? Explain its planning in detail.	**07**
	b)	Explain the OIdham-Hackman job characteristics model.	**07**
Q.5	**a)**	Explain the step wise project planning in detail.	**07**
	b)	What is software process model? Explain waterfall model in detail.	**07**
Q.6	**a)**	Explain cost benefit evaluation techniques in detail.	**07**
	b)	Explain the COCOMO model in detail.	**07**
Q.7	**Write note on (any four)**		**14**
	a)	Leadership	
	b)	Stakeholders	
	c)	Software quality Measures	
	d)	Cash flow forecasting	
	e)	Setting Objectives and Goals of project	

Seat No.

B.C.A. (Semester - VI) (CGPA) Examination Nov/Dec-2018
WEB TECHNOLOGY – III

Time: 2½ Hours   Max. Marks: 70

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

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

1) _____Session Mode stores session Information in Current Application Domain.
   a) SessionData   b) SessionServer
   c) InProc   d) SqlServer

2) _____ control must be used withAJAX Extensions controls.
   a) Timer   b) ScriptManager
   c) ScriptControl   d) ScriptAjax

3) _____ personalization allows the user to personalize the site before identifying themselves.
   a) Anonymous   b) Windows
   c) Form   d) User

4) _____ event in calendar control visits each and every day in the calendar.
   a) EachDay   b) DayRender
   c) SelectDate   d) EachDate

5) UDDI is nothing but _____.
   a) Universal Description, Discovery and Integration
   b) Universal Data, Discovery and Integration
   c) Unique Data, Description and Integration
   d) Unique Data, Discovery and Integration

6) _____ validation control is used to check whether entered data value is even numbers.
   a) RegularExpression   b) RequireField
   c) Custom   d) Compare

7) AJAX is nothing but _____
   a) Advance Javascript and Xml
   b) Auto Javascript and Xml
   c) Asynchronous JSP and Xml
   d) Asynchronous javascript and Xml

8) Default value for ShowCheckBoxes property of TreeView control is _____
   a) Root   b) Leaf
   c) All   d) None

9) The_____ element specifies the root element for the ASP.NET configuration section.
   a) System   b) System.Web
   c) Configuration   d) System.Configuration

10) Every master page must contain at least one <asp:ContentPlaceHolder> tag.
   a) True   b) False

11) _____ element of Advertisement file specify category of advertisements.
   a) Impression   b) Alternatetext
   c) Filter   d) Keyword

12) _____ property of BulletedList control is used to display item in the form of HyperLink
   a) SelectionMode   b) DisplayMode
   c) HyperlinkMode   d) BulletStyle

13) _____ folder is used to display content of our Web page according to browser's language.
   a) App_GlobalResource   b) App_ WebReferences
   c) App_Code   d) App_Data

14) _____ method of FileUpload control is used to upload file at server location.
   a) Upload()   b) Save()
   c) SaveAs()   d) Store()

Q.2 Attempt the following.
   a) What is Dynamic compilation? Explain compilation technique used is ASP.Net.   **07**
   b) Why Master page required? Explain nested master pages with example.   **07**

Q.3 Attempt the following:-
   a) Explain detail steps used in using web site administrator tool.   **07**
   b) Explain client and server architecture of AJAX.   **07**

Q.4 Attempt the following. (Any One)   14
   a) Explain with example
      1) List class
      2) Button Class
   b) Explain SiteNevigation techniques with example.

Q.5 Attempt the following. (Any One)   14
   a) Explain with example
      1) Membership and role provider
      2) Web Service
   b) What is state management? Explain different state management techniques in detail.