ML-185-003-003404 · Seat No._____

B. C. A. (Sem. IV) (CBCS) Examination

April/May - 2012

CS - 22 : Operating System Concepts With Unix/Linux

Faculty Code : 003

Subject Code : 003404

Time : $2\frac{1}{2}$ Hours]   [Total Marks : 70

Instructions :   (1) Write down the correct option (A,B,C,D) in main answer sheet.

(2) All MCQ questions are compulsory.

1   MCQ quetions :   **20**

(1) Which of the following is operating system ?

(A) Microsoft windows   (B) Disk operating system

(C) Linux   (D) All of the above

(2) Which type of software runs in Linux operating system ?

(A) X windows   (B) TCP/IP, Emacs

(C) Mail, news software   (D) All of the above

(3) Red Hat Linux runs on _____ based distribution.

(A) Company   (B) Distribution

(C) Coverage   (D) Package

(4) Which file lies in/etc directory as does many other confuguration files ?

(A) io.conf   (B) lilo.config

(C) lilo.configuration   (D) lilo.conf

(5) Which directory includes system administration as well as maintenance and hardware configuration program ?

(A) /root

(B) /var

(C) /tmp

(D) /sbin

(6) What is the full form of LILO ?

(A) LInux LOwrange   (B) LInux LOadable

(C) LInux LOader   (D) LInux LOwvalue

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(7) What is the full form of GRUB ?
     (A) Grand Universal Bootloader
     (B) Grand Unique Bootloader
     (C) Grand Unified Bootloader
     (D) Grand Uniform Boothloader

(8) Which of the following is not a communication command?
     (A) Write   (B) Mesg
     (C) Grep   (D) Mail

(9) Red Hat Linux provides _____ web browser by default.
     (A) Internet explorer   (B) Net scape navigator
     (C) Mozilla firefox   (D) SeaMonkey

(10) Which key is used to display the next page in man page ?
     (A) b   (B) d
     (C) f   (D) Ctrl + d

(11) Which player provides linux for entertainment ?
     (A) Windows media player   (B) Helix player
     (C) Real player   (D) Jet audio

(12) In linux, which window provides to open a command console in a graphical interface ?
     (A) Term window   (B) Terminal window
     (C) Test window   (D) Term shell window

(13) When user logged in as an administrator with root as username, which symbol will display on the screen ?
     (A) $ (B) #
     (C) %   (D) &

(14) In vi editor, the last command line displays name of the _____.
     (A) Editor   (B) File
     (C) Directory   (D) None of above

(15) Executing Is s*t will display _____.
     (A) A single file with name s*t
     (B) All files starting with $ and ending with t.
     (C) Files with three characters starting with s and ending with t.
     (D) Error will be displayed

(16) Who is command language interpreter ?
     (A) Shell   (B) Algorithm
     (C) Flow chart   (D) Command line

(17) Which command displays the calendar of June 2012 ?
     (A) Cal 02 2012   (B) Cal 2012 02
     (C) Cal feb 2012   (D) None of above

(18) Which command used to display list and information of the users currently logged in to the system ?
    (A) Who   (B) Who am i
    (C) Who i am   (D) Who we are

(19) Which command used to return, to the command prompt?
    (A) Ctrl + d
    (B) Ctrl + e
    (C) Ctrl + c
    (D) Ctrl + r

(20) Which command is used to count the number of lines, words and characters in the specified file or files ?
    (A) wc   (B) wf
    (C) wa   (D) wi

2   (a)   Answer any three from the following :   **6**
        (1)   What is operating system ? Why it is used ?
        (2)   What is difference between physical memory and virtual memory ?
        (3)   Explain contiguous memory allocation.
        (4)   Explain any two login commands.
        (5)   Explain any two mathematical calculation commands.
        (6)   What is redirection ? Explain piping also.

    (b)   Answer any three from the following :   **9**
        (1)   Write down and explain various functions of operating systems.
        (2)   Explain process state transition diagram.
        (3)   Write a short note on Round Robin method.
        (4)   Explain process scheduling.
        (5)   Explain Unix Architecture with its features.
        (6)   Explain types of shell.

    (c)   Answer any two from the following :   **10**
        (1)   Write down the types of Operating System. Explain in detail.
        (2)   Give difference between multi-processing, multi-tasking & multi-threading OS.
        (3)   Write a detailed note on virtual memory using paging and using segmentation.
        (4)   Write a note on operators in redirection and piping.
        (5)   Explain any five commands with syntax and its use from the following ?
            tr, tee, mtod, cron, join, kill, grep

3   (a)   Answer any three from the following :   6

           (1)   What is FCFS ?

           (2)   Explain non-contiguous memory allocation.

           (3)   Explain cursor movements.

           (4)   How demounting of a file system works ?

           (5)   Write about positional parameters.

           (6)   Give difference between shell keyword and shell variable.

   (b)   Answer any three from the following :   9

           (1)   Explain types of files in unix.

           (2)   Explain following commands.

               cat, cd, mv, chown, wc, touch

           (3)   Explain vi editor with its modes.

           (4)   Explain process of creating user in unix.

           (5)   Share your knowledge about GNOME & KDE in linux.

           (6)   Unix/Linux is used to develop games. Justify the statement in your own ideas.

   (c)   Answer any two from the following :   10

           (1)   Write a shell script to display the following output.

               1

               2 3

               4 5 6

               7 8 9 10.... Inpurt n for number of lines.

           (2)   Write a shell script that display the use of nested if.

           (3)   Write a shell script to read a file.

           (4)   Write a shell script to display the use of parameters.

           (5)   Explain the difference between read and echo using shell script.

(7) Servlet maintain the state between various request and store in memory that characteristics is known as _____.

    (a) Robust   (b) Flexible

    (c) Extensible   (d) Persistant

(8) Which one true for EL ?

    (a) ${expr}   (b) &{expr}

    (c) %{expr}   (d) @{expr}

(9) Late Binding process are created by which statement ?

    (a) Prepared   (b) Callable

    (c) System   (d) Connection

(10) Using of which method display virtual cursor of the result set in Relation ?

    (a) First( )   (b) Previous( )

    (c) Last( )   (d) Relative( )

(11) Which jar file is not needed in JSTL ?

    (a) Standard.jar   (b) Jstl.jar

    (c) el.jar   (d) none

(12) TLD stands for

    (a) Tab Library Descriptor   (b) Tag Library Directory

    (c) Tag Language Directory   (d) Tag Language Descriptor

(13) Which of objects are most visible ?

    (a) Application Scope.   (b) Page Scope.

    (c) Session Scope.   (d) Request Scope.

(14) To fetch the binary reprinting data like image, video etc., which method can be used ?

    (a) getDate( )   (b) getBoolean( )

    (c) getByte( )   (d) getBlob( )

(15) It perform database query like select statement and returns ResultSet.

    (a) Sql:Update   (b) Sql:Query

    (c) Sql:Select   (d) Sql:SetDataSource

(16) Which interface is used to retrieve information about the database tables, columns and other information ?

    (a) Metadata   (b) Database

    (c) Resultset   (d) None of these

(3) Write down a programme to insert a record in Student table use of JDBC-ODBC connectivity (Stu_Number, Stu_Name, Stu_Bdate, Stu_Add).

(4) Write down a programme to find out factorial of given number using JSP error exception.

(5) Write down a programme to pass message from one servlet to another.

3. (a) Give the answer of the following (any **three**) : **(6)**

    (1) Explain scope of JSP.

    (2) Explain any four HttpResponse Method.

    (3) Explain any three implicit objects of JSP.

    (4) Explain the Life Cycle of JSP.

    (5) Define the difference between ServletConfig and ServletContext Interface.

    (6) Explain EL Scope.

  (b) Give the answer of the following (any **three**) : **(9)**

    (1) Explain HttpRequest Method :

       getAttribute( ), getParameterNames( ), getQueryString( ).

    (2) Explain Servlet Exception.

    (3) What is Resultset ? Explain with example in JDBC.

    (4) Explain Single Thread Model.

    (5) Define the difference between statement interface and prepared statement.

    (6) What is JSTL ? Explain the basic functionality of different tags of the JSTL.

  (c) Give the answer of the following (any **two**) : **(10)**

    (1) Explain the J2EE component.

    (2) Write an RMI application to implement remote object which is used to print the sum of two integer numbers at client side.

    (3) Explain EL implicit object.

    (4) Explain J2EE Architecture Styles.

    (5) Explain the SQL tags of JSTL.