BRAINWARE UNIVERSITY

Term End Examination 2020 - 21

Programme – Bachelor of Technology in Computer Science & Engineering

Course Name – IT Workshop

Course Code - PCC-CS302

Semester / Year - Semester III

Time allotted : 85 Minutes | Full Marks : 70

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A

(Multiple Choice Type Question) 1 x 70=70

1. *(Answer any Seventy)*

(i) Find the error returned by MATLAB: syms a x y; a = x^2 + y^2; subs(a, [x,y], (2,3,4))

a) There is no subs command in MATLAB
b) The subs command has syntactical error
c) The subs command has extra input arguments
d) The subs command has incorrect arguments

(ii) We can generate the summation of a series, formed with a character, using _____

a) symsum
b) sum
c) symssum
d) int

(iii) To calculate the sum of only absolute variables in a series, we use _____

a) sum(abs())
b) abssum()
c) sumabs()
d) abs(sum())

(iv) We can find the summation of an A.G.P. series using _____

a) sum()
b) symsum()
c) Depends on the series
d) Cannot be done

(v) What is the output of the following code? mean(1:10)

a) Syntactical Error
b) 4.5
c) 5.5
d) Parse Error

(vi) Command used to display the value of variable x

a) displayx
b) disp(x)
c) ctrl+v
d) ctrl+b

(vii) Which is the invalid variable name in MATLAB?

a) x6
b) last
c) 6x
d) Z

(viii) What are the characters in MATLAB are represented in their value in memory?

a) Decimal
b) ASCII
c) Hex
d) String

(ix) What would be the output of the following code (in editor window)? A = [1 1 0 0] B = [1 ;2 ;3 ;4] C=A*B

a) 0
b) [1 0 0 0]
c) 3
d) [1 2 0 0]

(x) This MATLAB command clears all data and variables stored in memory

a) clc
b) clear
c) delete
d) deallocate

(xi) What would be the output of the following code (in editor window)? A = [1 0 2] ; b = [3 0 7]; c=a.*b;

a) [2 0 21]
b) [3 0 14]
c) [14 0 3]
d) [14 0 5]

(xii) What would be the output of the following code (in editor window)? a=1:5

; c=a.^2

a) [1 2 5]

b) [1 2 3 4 5]

c) [25 16 9 4 1]

d) [1 4 9 16 25]

(xiii) Compute 24 modulo 5. b = mod(24,5)

a) 3

b) 6

c) 4

d) 5

(xiv) What is the output of the following code? for i=1:4 for j=1:4 a=5;a=a+5; end end

a) No output

b) 10

c) 1

d) Error

(xv) Which of the following method is employed for solving the system of linear equations?

a) Runge Kutta

b) Newton Raphson

c) Gauss Seidal

d) Simpson's Rule

(xvi) What value does the variable q contain after the MATLAB code below executes? a = [1 3 5]; q = a.*a; q = q + 2;

a) [3 11 27]

b) Nothing - operation is not possible

c) [1 3 5]

d) [3 5 7]

(xvii)

What is the condition applied in factorization method?

a) Matrix should not be singular

b) Back substitution should be done

c) There must exist a diagonal matrix form of

d) All principal minors of the matrix should be

the given matrix | non-singular

(xviii) Which of the following MATLAB calculations would result the value 1?

a) 1+4/5 | b) 6/2*3

c) 3^3*2/3 | d) None of these

(xix) Is histogram a kind of multiple plots?

a) true | b) false

c) Cannot determine | d) None of these

(xx) What is the error in the code? a=[[1;2];(2,3)]

a) Third brackets are wrong | b) The semicolon within the second third brackets

c) There is no error | d) Error: Expression or statement is incorrect–possibly unbalanced

(xxi) What is the limitation of Gauss-seidal method?

a) It cannot be used for the matrices with non-zero diagonal elements | b) It is more complex than Jacobi's method

c) It doesn't guarantees convergence for each and every matrix | d) It is an iterative technique

(xxii) The difference between a function and a script is:

a) Only a function file can be run from the command line | b) Only a script file can perform a series of commands

c) Only a function requires inputs | d) Function variable names only have meaning within the function, whereas script variables are available to other programs

(xxiii) MATLAB API means:

a) Application Program Interface | b) Application Process Interconnected

c) Advance Program Internet | d) Advanced process Interface

(xxiv) What are the types of loops does MATLAB provides?

a) While loop
b) For loop
c) Not Supported
d) Both While loop and For loop

(xxv) FEM in MATLAB

a) Finite element Modeling
b) Final element MATLAB
c) Finite element MATLAB
d) Both Final element MATLAB and Finite element MATLAB

(xxvi) Which Graphic System is used in MATLAB

a) High level and low level commands
b) Only High level command
c) Low level command
d) None of these

(xxvii) The LU method of factorization was introduced by the mathematician_____

a) Alan Tango
b) David Hilbert
c) G. W. Leibniz
d) Alex Grothendieck

(xxviii) V=log(1) in MATLAB

a) 0
b) 1
c) Error
d) 4

(xxix) Which of the following step is not involved in the factorization process?

a) converting the given system to matrix form
b) the matrix is decomposed into the product of lower and upper triangular matrix
c) finding the unknowns using matrix multiplication
d) elimination of unknowns using back substitution

(xxx) A=1:6

a) 1 2 3 4 5 6
b) 2 3 4 5