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**Class – CSE CSTI**

**Roll No.- 2K20CSUN05020**

**Subject - MATLAB**

**LAB 01**

**Ques- 1 Arithmetic operations:** **compute the following quantities:**

/-1) and compare with

**octave:1>** (1-1/2^5)^-1

ans = 1.0323

**octave:2>** 2^5/(2^5-1)

ans = 1.0323

B) Area= π with r=-1

**octave:5>** area = pi\*((pi^1/3)-1)^2

area = 6.9982e-03

C) Find the absolute value of – 625.

**octave:6>** abs(-636)

ans = 636

**Ques- 2 Calculate:**

+/2+/3

**octave:3>** ((2+7)^3) + ((273)^2/3)/ ((55)^2)/3

ans = 731.74

+

**octave:4>**2 ^ 3 + 7 ^3 + (273 ^ 3)/2 + 55 ^ 3/2

ans = 1.0257e+07

**Ques- 3 Exponential and logarithms:** Calculate the following quantities:

1. .

**octave:7>**e^3

ans = 20.086

**octave:9>**log10(10^5)

ans = 5

**octave:10>**log(log(e^3))

ans = 1.0986

B)

**octave:8>** (e)^(pi)^(1/163)

ans = 1.0195

C) Solve for x and check the result.

**octave:11>**x = log10(17)/log10(3)

x = 2.5789

**Ques-4 Trigonometry:** Calculate the following quantities:

1. sinπ/6, cos π, tan π/4.

**octave:12>**sin(pi/6)

ans = 0.5000

**octave:13>**cos(pi)

ans = -1

**octave:14>** tan(pi/4)

ans = 1.0000

.

**octave:15>** (sin(pi/6))^2+(cos(pi/6))^2

ans = 1

**Ques-5 Trigonometric identity:** A trigonometric identity is given by :

Verify that identity is correct by calculating each side of the equation. Substituting   
x=π/5.

**octave:16>** (cos(pi/10))^2==(tan(pi/5) +sin(pi/5))/2\*tan(pi/5)

ans = 0