<https://youtu.be/mdhK35Vzy-c>

Part I (8 Points)

1. Which of the following is the denormalized equivalent of binary 1.1101 × 23?

a. 111.01

b. 11.101

c. 1110.1

d. 11101.0

2. Which of the following is the denormalized equivalent of binary 1.01 × 2− 4 ?

a. .01010

b. .00101

c. .000101

d. 1.0101

3. Which of the following is the normalized version of positive binary 1101.101?

a. 1.101101 × 23

b. 1.101101 × 24

c. 1.101101 × 25

d. 1.101101 × 22

4. Which of the following is the binary real equivalent of 3/16?

a. .011

b. .0111

c. .0011

d. .101

; Program Template (lastlab.asm)

; Program Description: calculates and displays the area of circle

; Author: Timothy Bryant

; Creation Date: 5/8/21

; Revisions:

; Date:

; Modified by:

.386

.model flat,stdcall

.stack 4096

ExitProcess PROTO, dwExitCode:DWORD

INCLUDE Irvine32.inc

INCLUDE macros.inc

.data

; declare variables here

readRadius BYTE "Enter the radius of the circle: ",0

displayArea BYTE "The area of the circle is: ",0

displayError BYTE "INVALID INPUT",0

f1 DWORD 0

.code

main PROC

;write your code here

finit ;intialize FPU

radius:

mov edx, OFFSET readRadius ;display prompt to user

call WriteString

call ReadFloat

fild f1 ;set 0 on stack

fcomip ST(0), ST(1) ;compare input and 0

jae L1

fmul ST(0), ST(0) ;square the radius

fldpi ;set pi (π) on stack

fmul ST(0), ST(1) ;multiple pi by radius square

mov edx, OFFSET displayArea ;display area

call WriteString

call WriteFloat

jmp bye

L1:

mov edx, OFFSET displayError ;display error

call WriteString

call Crlf

jmp radius

bye:

call Crlf

call DumpRegs

INVOKE ExitProcess, 0

main ENDP

END main

