import time

import random

from numpy import \*

print("\*\*\*\*\*\*WELCOME TO MY QUIZ GAME\*\*\*\*\*\*")

time.sleep(2.0)

print("\*\*\*\*loading.....")

time.sleep(2.0)

print("please wait....")

time.sleep(2.0)

plays=input('DO YOU WANT TO PLAY QUIZ : ---')

if plays.lower()=="yes":

print("LET'S PLAY : \*\*\*\*\*\*\*\*")

score=0

correct=0

incorrect=0

time.sleep(2.0)

player\_name=str(input("enter your name :-- "))

if player\_name==player\_name:

print()

time.sleep(2.0)

Branch\_name=str(input('enter the your branch name : '))

if Branch\_name==Branch\_name:

print()

time.sleep(2.0)

Roll\_no=str(input("enter your roll no : "))

if Roll\_no==Roll\_no:

print()

time.sleep(2.0)

print("Name of the Student : "+player\_name)

print("Name of the Branch : "+Branch\_name)

print("Roll Number : "+Roll\_no)

time.sleep(2.0)

print("\*\*\* start your game \*\*\*\* ")

#Q1=random.randint(Q1,Q2,Q3,Q4,Q5,Q6,Q7,Q8,Q9)

Q1=random.randint(1,10)

Q1="Which of the following statement(s) is (are) true?: --"

print("question number = 1 :--"+str(Q1))

time.sleep(2.0)

print(""" a.The computer systems are built on top of component design and functional blocks.

b.Computer architecture deals with the integration of components to build a computer system.

c.An architect's task in civil construction is similar to the principle of a computer organization.

d.An architect's job in civil construction is similar to the principle of a computer architecture.""" )

answer1=input("answer==")

if answer1=="a":

# print("a also correct this answer (a,b,d)")

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is : === ",score)

print("total correct answers == ",correct)

print()

elif answer1=='b':

print("\*\*\*correct\*\*\*")

score+=1

correct+=1

print("your score is :--- ",score)

print("total correct answers == ",correct)

elif answer1=='d':

print("\*\*\*\*correct\*\*\*\*")

score+=1

correct+=1

print("your score is : == ",score)

print("your correct answers == ",correct)

else:

print("incoorect")

incorrect += 1

print("correct answer is (a,b,d)")

print("total incorrect answers == ",incorrect)

time.sleep(2.0)

Q2=random.randint(2,10)

Q2="Which of the following order of evolution is true concerning the timeline of evolution of computers? : --"

print("question number = 2 :--"+str(Q2))

print("""a.Vacuum tubes, Pascaline, Babbage engine, Intel i7

b.Pascaline, Intel i7, Babbage engine, Vacuum tubes

c.Babbage engine, Pascaline, Vacuum tubes, Intel i7

d.Pascaline, Babbage engine, Vacuum tubes, Intel i7""" )

answer2=input("answer==")

if answer2=="d":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : d ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

time.sleep(2.0)

Q3=random.randint(3,10)

Q3="Which of the following statement(s) is (are) true for Moore’s law?"

print("question number = 3 :--"+str(Q3))

print(""" a.The number of chips inside a transistor doubles every 18 months.

b.The number of transistors inside an integrated circuit doubles every 18 months.

c.The rate of increase of the number of transistors has slowed in recent years.

d.Moore’s law was stated in 1970.""" )

answer3=input("answer==")

if answer3=="b":

print("\*\*\*\*correct\*\*\*\*\*\*")

#print("answer is(b,c)")

score += 1

correct += 1

print("your score is : ",score)

print("total correct answers = ",correct)

elif answer3=='c':

print("\*\*\*correct\*\*\*\*")

score+=1

correct+=1

print("your score is : -- ",score)

print("total correct score = ",correct)

else:

print("incoorect")

print("correcr answer is : c")

incorrect += 1

print("your incorrect answers : ",incorrect)

time.sleep(2.0)

Q4="Which of the following contains circuitry to perform operations such as addition, subtraction, multiplication, shifting, etc. in a computer?"

print("question number = 4 :--"+str(Q4))

print("""a.Arithmetic and Logic Unit

b.Memory Unit

c.Control Unit

d.Input/Output Unit""" )

answer4=(input("answer== "))

if answer4=="a":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is : -- ",score)

print("your correct answer is : ",correct)

else:

print("incoorect")

print("correct answer is : a")

incorrect += 1

print("total incorrectr is : ",incorrect)

time.sleep(2.0)

Q5="Which of the following statement(s) is (are) false?"

print("question number = 5 :--"+str(Q5))

print("""a.The traditional computer systems are also known as von Neumann architecture.

b.All instructions and data are stored in a memory.

c.The central processing unit is also called a control unit.

d.The arithmetic logic unit is responsible for all computations.""" )

answer5=input("answer==")

if answer5=="c":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is : ",score)

print("total correct answers = ",correct)

else:

print("incoorect")

print("correct answer is : = c")

incorrect += 1

print("total incorrect answers : ",incorrect)

time.sleep(2.0)

Q6="Which of the following is false concerning the processor?"

print("question number = 6 :--"+str(Q6))

print("""a.The processor communicates with the input/output device with the help of an interface.

b.The processor fetches instructions from memory for execution.

c.The processor directly communicates with the memory.

d.The processor does not use cache memory to communicate with the memory.

""" )

answer6=input("answer== ")

if answer6=="d":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is : - ",score)

print("total score == ",correct)

else:

print("incoorect")

print("correct answer is : d ")

incorrect +=1

print("total incorrect answer is : ",incorrect)

time.sleep(2.0)

Q7="Which of the following statement(s) is (are) true?"

print("question number = 7 :--"+str(Q7))

print("""a.The primary memory stores the necessary instructions and information for the processor.

b.The secondary memory acts as a backup.

c.The cache is slower than the primary memory.

d.The memory system is designed as a hierarchy of various levels.""" )

answer7=input("answer==")

if answer7=="a":

# print("answer is (a,b,d)")

print("\*\*\*\*a also correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is : - ",score)

print("total correct answers : -- ",correct)

elif answer7=='b':

print("\*\*\*correct/\*\*")

score+=1

correct+=1

print("your score is : = ",score)

print("total correct answer = ",correct)

elif answer7=='c':

print("\*\*\*\*correct\*\*\*")

score+=1

correct+=1

print("your score is : == ",score)

print("total correct answer is : == ",correct)

else:

print("incoorect")

print("correct answer is (a b d)")

score -= 1

incorrect += 1

print("total incorect answers is : == ",incorrect)

time.sleep(2.0)

Q8="Choose the wrong one from the statements given below:"

print("question number = 8 :--"+str(Q8))

print("""a.Byte: A collection of 8 bits

b.Bit: A single binary digit (0 or 1)

c.Nibble: A collection of 6 bits

d.Word: Some multiple of byte""" )

answer8=input("answer==")

if answer8=="c":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is : == ",score)

print("total correct answer is : == ",correct)

else:

print("incoorect")

print("correct answer is : c ")

incorrect += 1

print("total incorrect answers is : - ",incorrect)

time.sleep(2.0)

Q9="Which of the following statement(s) is (are) false?"

print("question number = 9 : --- "+str(Q9))

print("""a.The speed gap between the speed of a processor and memory is steadily increasing.

b.Cache memory is one way of tackling the processor-memory performance gap.

c.Memory determines the overall performance of a computer system.

d.The memory alone determines the overall performance of a computer system.

""" )

answer9=str(input("answer=="))

if answer9=='d':

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is : == ",score)

print("total correct answer is : == ",correct)

else:

print("incoorect")

print("correct answer is : d")

incorrect += 1

print("total incorrect answer is : ",incorrect)

time.sleep(2.0)

Q10="""A computer requires 39 bits to address a single word in memory.

Each word in this computer is 16 bits. What is the size of the memory?"""

print("question number = 10 :--"+str(Q10))

print("""a.1TB

b.2TB

c.3TB

d.4TB""" )

answer10=str(input("answer=="))

if answer10=='b':

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

else:

print("incoorect")

print("correct answer is : b")

incorrect += 1

print("total incorrect answers is : - ",incorrect)

time.sleep(2.0)

print("WELCOME TO WEEK 2 ")

Q11="The decimal number (99.5)10 in binary notation is:"

print("question number = 11:--"+str(Q11))

print("""a. 1000011.1

b. 1100011.1

c. 0101010.1

d. 1110011.1""" )

answer11=str(input("answer=="))

if answer11=='b':

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is : == ",score)

print("total correct answer is : == ",correct)

else:

print("incoorect")

print("correct answer is : b")

incorrect += 1

print("total incorrect answer is : ",incorrect)

Q12="The hexadecimal number (6A.4)16 in binary notation is:"

print("question number = 12 :--"+str(Q12))

print("""a. 1101100.01

b. 1101101.10

c. 1101010.01

d. 1101010.10""" )

answer12=str(input("answer=="))

if answer12=='c':

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is : == ",score)

print("total correct answer is : == ",correct)

else:

print("incoorect")

print("correct answer is : c ")

incorrect += 1

print("total incorrect answers is : ",incorrect)

Q13="What are the maximum and minimum numbers that can be represented in 1’ scomplement using 8-bits:"

print("question number = 13 :--"+str(Q13))

print("""a.+128 and -128

b. +127 and -127

c. +126 and -126

d. +128 and -126""" )

answer13=str(input("answer=="))

if answer13=='b':

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is : == ",score)

print("total correct answer is : == ",correct)

else:

print("incoorect")

print("correct answer is : b ")

incorrect += 1

print("total incorrect answer is : ",incorrect)

Q14="Which of the following is not an advantage of 2’s complement representation?"

print("question number = 14 :--"+str(Q14))

print("""a.Unique representation of zero

b. Subtraction can be done using addition

c. Efficient circuitry

d. Expensive circuitry""" )

answer14=str(input("answer=="))

if answer14=='d':

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is : == ",score)

print("total correct answer is : == ",correct)

else:

print("incoorect")

print("correct answer is : - d")

incorrect += 1

print("total incorrect answer is : ",incorrect)

Q15="""The addressing mode that adds the displacement and the index register

to get the effective address of the operand is:"""

print("question number = 15 :--"+str(Q15))

print("""a. Indexed addressing

b. Base-Indexed addressing

c. Register Indirect addressing

d. Relative addressing""" )

answer15=str(input("answer=="))

if answer15=='a':

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is : == ",score)

print("total correct answer is : == ",correct)

else:

print("incoorect")

print("correct answer is : a")

incorrect += 1

print("total incorrecr answer is : ",incorrect)

Q16="""Register R1 and R2 contain values 100 and 1000 respectively in decimal, and the word

length of the processor is 32 bits. What will be the value of the effective address of the

memory operand for the instruction “STORE R3, 70(R1, R2)?” """

print("question number = 16 :--"+str(Q16))

print("""a. 1132

b. 1170

c. 1100

d. 1202""" )

answer16=str(input("answer=="))

if answer16=='b':

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is : == ",score)

print("total correct answer is : == ",correct)

else:

print("incoorect")

print("correct answer is : b ")

incorrect += 1

print("total incorrect answer is : ",incorrect)

Q17="""Given a sequence of instruction:

ADD R1,R2,R3

SUB R4,R5,R6

MOV R4,R7

Identify the addressing mode used in the instructions."""

print("question number = 17 :--"+str(Q17))

print("""a. Direct addressing

b. Indirect addressing

c. Register addressing

d. Register indirect addressing""" )

answer17=str(input("answer=="))

if answer17=='c':

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is : == ",score)

print("total correct answer is : == ",correct)

else:

print("incoorect")

print("correct answer is : c")

incorrect += 1

print("total incorrect answer is : ",incorrect)

Q18=""". What is the equivalent MIPS32 instruction for the C code segment:

A = B + C;

F = A + D - E;

Assume that the variable values are loaded in appropriate registers"""

print("question number = 18 :--"+str(Q18))

print("""a. Add $s0, $s1, $s2

Add $t1, $s0, $s3

Sub $s5, $t1, $s4

b. Add $s0, $s1, $s2

Add $t1, $s1, $s3

Sub $s5, $t1, $s4

c. Add $s0, $s1, $s2

Add $t1, $s3, $s0

Sub $s5, $t2, $s1

d. Add $s0, $s1, $s2

Add $t1, $s1, $s0

Sub $s5, $t2, $s1""" )

answer18=str(input("answer=="))

if answer18=='a':

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct +=1

print("your score is : == ",score)

print("total correct answer is : == ",correct)

else:

print("incoorect")

print("correct answer is : a")

incorrect += 1

print("total incorrect answer is : ",incorrect)

Q19="""The MIPS instruction SLA $S1, $S2, 6 means:"""

print("question number = 19 :--"+str(Q19))

print("""a. Shift left $S1 by 6 places, and store it in $S2

b. Shift left $S2 by 6 places, and add it with $S1

c. Shift left $S1 by 6 places, and add it with $S2

d. Shift left $S2 by 6 places, and store it in $S1""" )

answer19=str(input("answer=="))

if answer19=='d':

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is : == ",score)

print("total correct answer is : == ",correct)

else:

print("incoorect")

print("correct answer is : d")

incorrect += 1

print("total incorrect answer is : ",incorrect)

Q20="""Which of the following is false in regards to the assembler directive of the MIPS32

assembly code?"""

print("question number = 20 :--"+str(Q20))

print("""a. .text – Specifies the user text segment

b. .space n – Reserve space for n non-sequential bytes in memory

c. .ascii str – Stores the specified string in memory in ASCII code

d. .globl gbl – Specifies that the symbol ‘gbl’ is global

""" )

answer20=str(input("answer=="))

if answer20=='b':

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is : == ",score)

print("total correct answer is : == ",correct)

else:

print("incoorect")

print("correct answer is : b")

incorrect += 1

print("total incorrect answer is : ",incorrect)

time.sleep(2.0)

print("\*\*\*WELCOME TO WEEK 3 ")

Q21="""What is the clock cycle time of a machine

whose frequency is 1 GHz?

"""

print("question number = 21 :--"+str(Q21))

print("""a.1 ps

b.1 ns

c.10 ns

d.10 ps""" )

answer21=str(input("answer=="))

if answer21=='b':

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is : == ",score)

print("total correct answer is : == ",correct)

else:

print("incoorect")

print("correct answer is : b")

incorrect += 1

print("total incorrect answer is : ",incorrect)

Q22="""A machine has a CPI of 3, and a single program requires 20 instructions to execute. What will be the execution time if the clock frequency of the machine is 1GHz?"""

print("question number = 22 :--"+str(Q10))

print("""a.40 ns

b.50 ns

c.60 ns

d.70 ns""" )

answer22=str(input("answer=="))

if answer22=='c':

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is : == ",score)

print("total correct answer is : == ",correct)

else:

print("incoorect")

print("correct answer is : c")

incorrect += 1

print("total incorrect answer is : ",incorrect)

Q23="""A new machine runs 10 times faster than before. What is the speedup of the new machine over the old machine?

"""

print("question number = 23 :--"+str(Q23))

print(""" a.1

b.5

c.10

d.11 """ )

answer23=str(input("answer=="))

if answer23=='c':

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is : == ",score)

print("total correct answer is : == ",correct)

else:

print("incoorect")

print("correct answer is : c" )

incorrect += 1

print("total incorrect answer is : ",incorrect)

Q24="""Which of the following statement(s) is/are false?"""

print("question number = 24 :--"+str(Q24))

print(""" a.In a RISC architecture, the number of instructions/programs, CPI, and clock cycle time increases.

b.In a RISC architecture, the number of instructions/programs increases, but the CPI and clock cycle time decrease.

c.In a CISC architecture, the number of instructions/programs decreases, but the CPI, and clock cycle time increase.

d.RISC architecture performs better than CISC architecture.""" )

answer24=str(input("answer=="))

if answer24=='a':

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is : == ",score)

print("total correct answer is : == ",correct)

else:

print("incoorect")

print("correct answer is : a")

incorrect += 1

print("total incorrect answer is : ",incorrect)

Q25="""Consider a machine with a clock frequency of 2.5

GHz executing 3000 instructions with an average

CPI of 3. Suppose we use a new compiler on the same program for which the new instruction count is 6000, and a new CPI is 1.5, running on a faster machine with a clock rate of 3 GHz. What will be the speedup achieved?"""

print("question number = 10 :--"+str(Q25))

print("""a.1.0

b.1.1

c.1.2

d.1.3""" )

answer25=str(input("answer=="))

if answer25=='c':

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is : == ",score)

print("total correct answer is : == ",correct)

else:

print("incoorect")

print("correct answer is : c")

incorrect += 1

print("total incorrect answer is : ",incorrect)

Q26="""The CPI of a machine depends on"""

print("question number = 26 :--"+str(Q26))

print("""a.Program used

b.Compiler

c.Instruction Set Architecture

d.CPU organization

e. All of these""" )

answer26=str(input("answer=="))

if answer26=='e':

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is : == ",score)

print('total correct answers : = ',correct)

else:

print("incoorect")

print("correct answer is :-- e ")

incorrect += 1

print("total incorrect answer : ",incorrect)

Q27="""The MIPS rating of a machine is 300 MIPS, and the CPI is 2. What is the clock rate of the machine?

"""

print("question number = 27 :--"+str(Q27))

print("""a.500 MHz

b.600 MHz

c.700 MHz

d.800 MHz""" )

answer27=str(input("answer=="))

if answer27=='b':

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is : == ",score)

print('total correct answers : = ',correct)

else:

print("incoorect")

print("correct answer is :- b")

incorrect += 1

print("total incorrect answers is :- ",incorrect)

Q28="""Consider a processor with two instruction classes

, A and B, with corresponding CPI values of 1.5 and 2,

respectively. The processor runs at a clock rate of 2.5 GHz. For a given program, the instruction counts for the two types of instructions are 50 million and 10 million, respectively. What are the MIPS rating and the CPU time of the processor?"""

print("question number = 28 :--"+str(Q28))

print("""a.1579.28 MIPS and 37.992 ms

b.1580.28 MIPS and 38.992 ms

c.1581.28 MIPS and 37.992 ms

d.1579.28 MIPS and 36.992 ms""" )

answer28=str(input("answer=="))

if answer28=='a':

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is : == ",score)

print('total correct answers : = ',correct)

else:

print("incoorect")

print("correct answer is : - a")

incorrect += 1

print("total incorrect answers is : - ",incorrect)

Q29="Which of the following statements is/are true for Amdahl’s law?"

print("question number = 29 :--"+str(Q29))

print("""a.It expresses the law of diminishing returns.

b.It expresses the maximum speedup that can be achieved.

c.It provides a measure to compare the execution times of two machines.

d.All of these.""" )

answer29=str(input("answer=="))

if answer29=='b':

print("b is also correct answer is (a,b)")

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is : == ",score)

print('total correct answers : = ',correct)

else:

print("incoorect")

print("correct answer is :- b")

incorrect += 1

print("total incorrect answer is : - ",incorrect)

Q30="""The total execution time of a typical program is made up of 40% CPU time and 30% I/O time. Which of the following alternatives is better? Assume that there

is no overlap between CPU and I/O operations."""

print("question number = 30 :--"+str(Q30))

print(""" a.Increase the CPU speed by 50%.

b.Reduce the I/O time by half.

c.Both alternatives give the same speedup.

d.None of these.""" )

answer30=str(input("answer=="))

if answer30=='b':

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is : == ",score)

print('total correct answers : = ',correct)

else:

print("incoorect")

print("correct answer is :- b ")

incorrect += 1

print("total incorrect answers is : = ",incorrect)

Q31="""In the MIPS instruction set architecture, an instruction can start from the memory

address:

"""

print("question number = 31 :--"+str(Q21))

print("""a.1030 0D1C (in hexadecimal)

b.1000 0C10 (in hexadecimal)

c.1110 0CD0 (in hexadecimal)

d.0211 3006 (in hexadecimal)""" )

answer31=str(input("answer=="))

if answer31=='a':

print("a is correct also correct")

print("answer is a b c")

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is : == ",score)

print('total correct answers : = ',correct)

elif answer31=='b':

print("correct")

score+=1

correct+=1

print("your score is : == ",score)

print('total correct answers : = ',correct)

elif answer31=='c':

print("correct")

score+=1

correct+=1

print("your score is : == ",score)

print('total correct answers : = ',correct)

else:

print("incoorect")

print("correct answer is : (a,b,c)")

incorrect += 1

print("total incorrect answers is := ",incorrect)

Q32="""There are broadly three types of data movement. Choose the wrong one among the

following."""

print("question number = 32 :--"+str(Q32))

print("""a.Register to Register

b.Register to ALU

c.ALU to ALU

d.ALU to Register""" )

answer32=str(input("answer=="))

if answer32=='c':

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is : == ",score)

print('total correct answers : = ',correct)

else:

print("incoorect")

print("correct answer is : - c. ALU to ALU")

incorrect += 1

print("total incorrect answers : ",incorrect)

Q33="""Which of the following set of control signals can be used to transfer data from register

R4 to register R5?"""

print("question number = 33 :--"+str(Q33))

print("""a. R4out, R5in

b. R4out, MARin, MDRout

c. R5out, R4in

d. R5out, MARin, R4in""" )

answer21=str(input("answer=="))

if answer21=='b':

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is : == ",score)

print('total correct answers : = ',correct)

else:

print("incoorect")

print("correct answer is ; = b")

incorrect += 1

print("total incorrect answers is : - ",incorrect)

Q34="""Which instruction does the following set of micro-operations refer to:

Steps Action

1 PCout, MARin, Read, Select4, Add, Zin

2 Zout, PCin, Yin, WMFC

3 MDRout, IRin

4 R1out, Yin, SelectY

5 R2out, Add, Zin

6 Zout, R1in, End"""

print("question number = 34 :--"+str(Q34))

print(""" a. ADD R2, R1

b. ADD R1, R2

c. MOVE R1, R2

d. MOVE R2, R1""" )

answer34=str(input("answer=="))

if answer21=='b':

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is : == ",score)

print('total correct answers : = ',correct)

else:

print("incoorect")

print("correct answer is :-- b")

incorrect += 1

print("total incorrect answers is : - ",incorrect)

Q35=""" Which of the following instructions can be used for storing the contents of processor

register R1 to memory location LOCA in a typical RISC architecture? The first operand is

the destination and the second operand is the source."""

print("question number = 35 :--"+str(Q35))

print(""" a.LOAD R1, LOCA

b. STORE LOCA, R1

c. MOVE LOCA, R1

d. STORE R1, LOCA""" )

answer35=str(input("answer=="))

if answer35=='b':

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is : == ",score)

print('total correct answers : = ',correct)

else:

print("incoorect")

print("correct answer is : - b ")

incorrect += 1

print("total incorrect answers is : - ",incorrect)

Q36=""" What is the minimum number of time steps needed to execute the instruction “ADD R1,

LOCA” (Meaning: R1  R1 + Mem[LOCA]) in a single bus architecture. Consider the

single bus architecture provided in the lecture slides for the calculation."""

print("question number = 36 :--"+str(Q36))

print(""" a.5

b.6

c.7

d.8""" )

answer36=str(input("answer=="))

if answer36=='c':

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is : == ",score)

print('total correct answers : = ',correct)

else:

print("incoorect")

print("correct answer is : - c ")

incorrect += 1

print("total incorrect answers is ",incorrect)

Q37=""" Which of the following statements are true for vertical micro-instruction encoding?"""

print("question number = 37 :--"+str(Q37))

print(""" a. If there are 2kcontrol signals, every control word stored

in control memory (CM)consists of k bits.

b. Sequential activation of at most one control signal in a single time step.

c. Low cost of implementation.

d. None of these.""" )

answer37=str(input("answer=="))

if answer37=='a':

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is : == ",score)

print('total correct answers : = ',correct)

elif answer37=="b":

print("\*\*correct\*\*")

score+=1

correct+=1

print("your score is : == ",score)

print('total correct answers : = ',correct)

elif answer37=="c":

print("\*\*\*correct\*\*\*")

score+=1

correct+=1

print("your score is : == ",score)

print('total correct answers : = ',correct)

else:

print("incoorect")

print("correct answers is :== (a,b,c)")

incorrect += 1

print("total incorrect answers is : - ",incorrect)

Q38=""" Which of the following is true for the ID (Instruction Decode) stage of the MIPS32 data

path?"""

print("question number = 38 :--"+str(Q38))

print("""a. The instruction is decoded.

b. Decoding can be done in parallel with reading the register operands.

c. The PC is incremented.

d. All of these.""" )

answer38=str(input("answer=="))

if answer38=='b':

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is : == ",score)

print('total correct answers : = ',correct)

else:

print("incoorect")

print("correct answer is : - b ")

incorrect += 1

print("total incorrect answers is : ",incorrect)

Q39="""Which of the following is the correct MIPS32 instruction cycle?

"""

print("question number = 39 :--"+str(Q39))

print("""a. Instruction Fetch, Instruction Decode, Execute, Memory Access, Write Back

b . Instruction Fetch, Instruction Decode, Execute, Write Back, Memory Access

c . Instrunction Fetch,Excution,write back,Memory Acess,Instruction Decode

d. Instruction Decode, Instruction Fetch, Execute, Write Back, Memory Access""" )

answer39=str(input("answer=="))

if answer39=='a':

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is : == ",score)

print('total correct answers : = ',correct)

else:

print("incoorect")

print("correct answer is :== a ")

incorrect += 1

print("total incorrect answers is ; - ",incorrect)

Q40="""Assume that an instruction set architecture of a general-purpose machine has a total of

126 control signals. The number of bits required in control word for horizontal and

vertical micro-instruction encoding are:

"""

print("question number = 40 :--"+str(Q40))

print(""" a.126,7

b.128,7

c.7,126

d.126,8

""" )

answer40=str(input("answer=="))

if answer40=='a':

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is : == ",score)

print('total correct answers : = ',correct)

else:

print("incoorect")

print("correct answer is : - a ")

incorrect += 1

print("total incorrect answers is : ",incorrect)

Q41="""How many addresses and data lines will be there for a 16M x 32 memory system?"""

print("question number = 41 :--"+str(Q41))

print("""a. 24 and 5

b. 20 and 32

c. 24 and 32

d. None of these""" )

answer41=str(input("answer=="))

if answer41=='c':

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is : == ",score)

print('total correct answers : = ',correct)

else:

print("incoorect")

print("answer is c: 24 and 32")

incorrect += 1

print("total incorrect answers is : ",incorrect)

Q42=""" What is the function of the chip select line (CS’) in a memory chip?"""

print("question number = 21 :--"+str(Q42))

print("""a. The power supply is applied to the chip when CS’ is activated.

b. The data bus is put in the high impedance state when CS’ is deactivated.

c. It prevents two or more subsystems from using the memory simultaneously.

d. None of these.

""" )

answer21=str(input("answer=="))

if answer21=='b':

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is : == ",score)

print('total correct answers : = ',correct)

else:

print("incoorect")

print(" answer is : --- b. The data bus is put in the high impedance state when CS’ is deactivated.")

incorrect += 1

print("total incorrect is : - ",incorrect)

Q43="""The memory size for n address lines and m data lines is given as:

"""

print("question number = 43 :--"+str(Q43))

print("""a. 2m x n

b. m x n2

c. 2nx m

d. n x m2

""" )

answer43=str(input("answer=="))

if answer43=='c':

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is : == ",score)

print('total correct answers : = ',correct)

else:

print("incoorect")

print("answer is : c. 2n x m")

incorrect += 1

print("total incorrect answers is : - ",incorrect)

Q44="""How many transistors are required in an 8-bit SRAM cell?

"""

print("question number = 44 :--"+str(Q44))

print("""a. 31

b. 48

c. 46

d. 30

""" )

answer44=str(input("answer=="))

if answer44=='b':

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is : == ",score)

print('total correct answers : = ',correct)

else:

print("incoorect")

print("Correct Answer: b")

incorrect += 1

print("total incorrect answers is : ",incorrect)

Q45="""Which of the following statement(s) is/are true?

"""

print("question number = 45 :--"+str(Q45))

print(""" a. The main objective of cache memory is to increase the effective speed of the

memory system.

b. The main objective of virtual memory is to increase the effective capacity of the

memory system.

c. The size of the main memory is larger than cache memory.

d. Main memory is faster than cache memory.""" )

answer45=str(input("answer=="))

if answer45=='a':

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is : == ",score)

print('total correct answers : = ',correct)

elif answer45=='b':

print("correct")

score+=1

correct+=1

print("your score is : == ",score)

print('total correct answers : = ',correct)

elif answer45=='c':

print("correct")

score+=1

correct+=1

print("your score is : == ",score)

print('total correct answers : = ',correct)

else:

print("incoorect")

print("correct answers is : = (a,b,c)")

incorrect += 1

print("total incorrect answers = ",incorrect)

Q47="""For a 2K x 16 memory system that uses a decoder to select a word, the total number of

external connections to the memory system (including address, data, control, and

power signals) will be at least:

"""

print("question number = 47 :--"+str(Q47))

print("""a. 28

b. 29

c. 30

d. 31""" )

answer47=str(input("answer=="))

if answer47=='d':

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is : == ",score)

print('total correct answers : = ',correct)

else:

print("incoorect")

print("Correct is : d : 31")

incorrect += 1

print("the incorrect answers is : ",incorrect)

Q48="""What will be the maximum data transfer rate for a DDR4 SDRAM if the internal clock is

133MHz and the bus clock is 1200MHz?

"""

print("question number = 48 :--"+str(Q48))

print("""a. 19.20 KB/s

b. 19.20 MB/s

c. 19.20 GB/s

d. 19.20 TB/s""" )

answer48=str(input("answer == "))

if answer48=='c':

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is : == ",score)

print('total correct answers : = ',correct)

else:

print("incoorect")

print("correct answer is :- c ")

incorrect += 1

print("the total incorrect answers == ",incorrect)

Q49="""Assume that a 1G x 1 DRAM memory cell array is organized as 1M rows and 1K columns.

The number of address bits required to select a row and a column will be:

"""

print("question number = 49:--"+str(Q49))

print("""a. 20 and 10

b. 30 and 1

c. 220 and 210

d. None of these""" )

answer49=str(input("answer=="))

if answer49=='a':

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is : == ",score)

print('total correct answers : = ',correct)

else:

print("incoorect")

print("correct answer is : -- a ")

incorrect += 1

print("total incorrect answers == ",incorrect)

Q50="""Which of the following statements are true for memory interleaving?

"""

print("question number = 50 :--"+str(Q50))

print("""a. The higher-order address lines are connected to address lines of memory chips.

b. Consecutive memory addresses are mapped to consecutive memory modules.

c. Permits faster data transfer for word-aligned data.

d. None of these.""" )

answer50=str(input("answer=="))

if answer50=='a':

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is : == ",score)

print('total correct answers : = ',correct)

elif answer50=='b':

print("\*\*\*correct\*\*\*")

score+=1

correct+=1

print("your score is : == ",score)

print('total correct answers : = ',correct)

elif answer50=='c':

print("\*\*\*correct\*\*\*\*")

score+=1

correct+=1

print("your score is : == ",score)

print('total correct answers : = ',correct)

else:

print("incoorect")

print("correct answers is : (a,b,c)")

incorrect += 1

print(" total incorrect answers : ",incorrect)

Q51=""" Which of the following is true for a memory hierarchy?

"""

print("question number = 51 :--"+str(Q51))

time.sleep(2.0)

print(""" a. It tries to bridge the processor-memory speed gap.

b. The speed of the memory level closest to the processor has the highest speed.

c. The capacity of the memory level farthest away from the processor is the largest.

d. It is based on the principle of locality of reference.

e. All of these.

""" )

answer51=input("answer==")

if answer51=="e":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is : === ",score)

print("total correct answers == ",correct)

print()

else:

print("incoorect")

print("\*\*\* correct answer is : e ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q52="""Which of the following measures can be followed to reduce the impact of the processor-

memory performance gap?

"""

print("question number = 52 :--"+str(Q52))

print("""a. Use faster cache memory.

b. Use multiple memory banks with memory interleaving.

c. Increase the width of the memory data bus.

d. User faster memory technologies.

e. All of these.

""" )

answer52=input("answer==")

if answer52=="e":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : e ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q53="""Assume that we have a computer with a 2-level memory hierarchy consisting of a cache

memory L1 and the main memory L2. Suppose that the cache is 10 times faster than the

main memory, and the cache has a hit ratio of 95%. What is the speedup achieved by

using this cache?

"""

print("question number = 53 :--"+str(Q53))

print("""a. 6.59

b. 6.69

c. 6.79

d. 6.89""" )

answer53=input("answer==")

if answer53=="d":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : d ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q54="""4. In a two-level cache system, the hit time of the first cache, L1, is 25

nsec and that of L2 is

45 nsec. If the hit rate of L1 is 85% and that of L2 is 95%, and the miss penalty on the L2

cache miss is 10 nsec. The average memory access time will be \_\_\_\_\_\_\_\_\_\_ nsec."""

print("question number = 54 :--"+str(Q54))

print("""please enter your answer : """ )

answer54=int(input("answer=="))

if answer54==2700:

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : 27.00 to 28.00 ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q55="""A set-associative cache consists of 64 blocks divided into 4-block sets. The main memory

contains 4096 blocks, each consisting of 128 words. How many bits will be in the TAG,

SET, and WORD fields?

"""

print("question number = 55 :--"+str(Q55))

print("""a. 4, 8, 7

b. 4, 7, 8

c. 8, 7, 4

d. 8, 4, 7""" )

answer55=input("answer==")

if answer55=="d":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : d ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q56="""Consider a direct-mapped cache of size 2 Mbyte and a 32-bit addresses. If the block size

is 256 bytes. What is the number of tag bits?

"""

print("question number = 56 :--"+str(Q56))

print("""a. 11

b. 12

c. 13

d. 14""" )

answer53=input("answer==")

if answer53=="a":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : a ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q57="""Which of the following statement(s) is/are false for cache misses?

"""

print("question number = 57 :--"+str(Q57))

print(""""a. Compulsory miss can be reduced by increasing the cache block size.

b. Capacity miss can be reduced by increasing the total size of the cache.

c. Conflict miss can be reduced by decreasing the value of cache associativity.

d. Compulsory miss can be reduced by prefetching cache blocks.""" )

answer57=input("answer==")

if answer57=="c":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : c ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q58="""How can the cache miss rate be reduced?

"""

print("question number = 58 :--"+str(Q58))

print("""a. By using a larger block size

b. By using a larger cache size

c. By reducing the cache associativity

d. None of these""" )

answer58 =input("answer==")

if answer58=="a"or 'b':

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : a b ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q59="""Suppose that in 1000 memory references, there are 50 misses in the L1 cache and 15

misses in the L2 cache. The miss rate of L1, local miss rate L2, and the global miss rate

L2, respectively, are

"""

print("question number = 59 :--"+str(Q59))

print("""a. 5%, 30%, and 1.5%

b. 25%, 5%, and 1.25%

c. 5%, 25%, and 1.25%

d. 1.25%, 5%, and 25%""" )

answer59=input("answer==")

if answer59=="a":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : a ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q60="""Which of the following statement(s) is/are false?

."""

print("question number = 60 :--"+str(Q60))

print("""a. Miss penalty increases with an increase in block size.

b. Miss penalty can be reduced by using a multi-level cache.

c. Capacity misses can be reduced by increasing the cache size.

d. None of these""" )

answer60=input("answer==")

if answer60=="d":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : d ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q61="""How many basic gates (AND, OR, NOT) are required to construct a half-adder? What is

the delay of a half-adder, considering the delay of each basic gate is 1?

"""

print("question number = 61 :--"+str(Q61))

print("""a. 4, 2

b. 5, 2

c. 4, 3

d. 6, 3""" )

answer61=input("answer==")

if answer61 =='d':

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : d ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q62="""Assume that for a full adder implementation, the delay for sum and carry generation are

6 nsec and 4 nsec, respectively. The worst-case delay of a 16-bit ripple carry adder will

be:

"""

print("question number = 62 :--"+str(Q62))

print("""a. 96 nsec

b. 64 nsec

c. 66 nsec

d. None of these""" )

answer62=input("answer==")

if answer62=="d":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : d ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q63="""What is/are the advantage(s) of the carry look-ahead adder over ripple carry adder for

adding two n-bit numbers?

"""

print("question number = 63 :--"+str(Q63))

print("""a. The time for addition becomes linear in n and not exponential.

b. The time for addition is independent of n.

c. The hardware requirement is less.

d. It can be easily extended to larger values of n.""" )

answer63=input("answer==")

if answer63=="b":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : d ")

incorrect += 1

print("your incorrect answer is : - ",incorrect)

Q64="""Suppose we multiply (11) x (12) using shift-and-add multiplication, where each number

is represented in 5 bits. What will be the values of C (Carry Out from adder), A

(temporary register), and Q (multiplier) after the third step?

"""

print("question number = 64 :--"+str(Q64))

print("""a. 0, 10101, 11100

b. 0, 00101, 10001

c. 0, 01011, 00011

d. 0, 00000, 00011""" )

answer64=input("answer==")

if answer64=="b":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : d ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q65="""Suppose that we are adding fifteen 32-bit numbers using 32-bit carry save adder

modules and a parallel adder in the last stage of the computation. The minimum

number of carry save adders required will be:

"""

print("question number = 65 :--"+str(Q65))

print("""a. 15

b. 18

c. 16

d. 13""" )

answer65=input("answer==")

if answer65=="d":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : d ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q66="""What will be the Booth encoding for the 12-bit binary number 0111 1100 0110?

"""

print("question number = 66:--"+str(Q66))

print("""a. -1000 0-100 +10-10

b. -1000 0+100 -10+10

c. +1000 0-100 +10-10

d. +1000 0+100 -10+10""" )

answer66=input("answer==")

if answer66=="c":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : d ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q67="""Suppose we add six n-bit numbers using carry save adder (CSA) blocks. The hardware

requirement will be:

"""

print("question number = 67 :--"+str(Q67))

print("""a. 6 CSA blocks and 1 parallel adder

b. 5 CSA blocks and 1 parallel adder

c. 5 CSA blocks

d. 4 CSA blocks and 1 parallel adder""" )

answer67=input("answer==")

if answer67=="d":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : d ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q68="""When two 8-bit numbers (A7 A6 ... A0) and (B7 B6 ... B0) in 2’s complement

representation (with A0 and B0 as the least significant bits) are added using ripple carry

adder, the sum bits obtained are (S7 S6 ... S0), and the carry bits are (C7 C6 ... C0). An

overflow is said to have occurred if:"""

print("question number = 68 :--"+str(Q68))

print("""a. The carry bit C7 is 1

b. All the carry bits (C7, C6 ... C0) are 1

c. A7.B7.S7’ + A7’.B7’.S7 is 1

d. A0.B0.S0’ + A0’.B0’.S0 is 1"""

)

answer2=input("answer==")

if answer2=="c":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : d ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q69="""Which of the following statement(s) is/are true?"""

print("question number = 69 :--"+str(Q69))

print("""

a. Booth’s multiplier is faster than the shift-and-add multiplier.

b. Booth’s multiplier with bit-pair recoding is faster than conventional Booth’s

multiplier.

c. Carry-save multiplier is faster than Booth’s multiplier.

d. Carry-save multiplier is slower than Booth’s multiplier.""" )

answer69=input("answer== ")

if answer69=="a"or'b'or'c':

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : d ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q70="""In 6-bit 2’s complement representation, when we subtract the decimal number +6 from

+3, the result (in binary) will be:

"""

print("question number = 70 :--"+str(Q70))

print("""a. 111101

b. 000011

c. 100011

d. 111110""" )

answer70=input("answer==")

if answer70=="a":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : d ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q71="""The binary fraction 11000001.101 represents the decimal number 193.625. What will its

value be if the fraction point is shifted by six positions to get the number 11.000001101?

"""

print("question number = 2 :--"+str(Q2))

print("""a. The value will get divided by 64

b. The value will get multiplied by 64

c. The value will be 3.025390625

d. The value will be 12392""" )

answer2=input("answer==")

if answer2=="a"or'c':

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : d ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q72="""Which of the following decimal fractions can be represented precisely in binary?

"""

print("question number = 72 :--"+str(Q72))

print("""a. 85/128

b. 54/96

c. 33/99

d. 100/500

e. 500/800

f. 3/2048""" )

answer72=input("answer==")

if answer72=="a"or'b'or'd'or'e'or'f':

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : a b d e f ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q73="""For single-precision floating-point number representation using IEEE-754 format, which

of the following statements is false?

"""

print("question number = 73 :--"+str(Q73))

print("""a. There is a separate bit to store the sign of the number.

b. The mantissa is a fraction generally in the range of 1.0 to 2.0.

c. The exponent is expressed in biased notation.

d. None of these.""" )

answer73=input("answer==")

if answer73=="a":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : d ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q74="""For a floating-point representation with 64 bits in the mantissa and 12 bits in the

exponent, the number of significant digits in decimal and the maximum (positive) value

of the exponent in decimal will be:

"""

print("question number = 74 :--"+str(Q74))

print("""a. 15 and 48

b. 20 and 617

c. 19 and 616

d. 7 and 38""" )

answer74=input("answer==")

if answer74=="c":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : d ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q75="""What is the purpose of mantissa alignment during floating-point addition?

"""

print("question number = 75 :--"+str(Q75))

print("""a. To make the exponents equal so that the mantissa values can be directly added.

b. To increase the accuracy of the final result.

c. To make the number of significant digits in the two mantissa values to be added

as close as possible.

d. None of these.""" )

answer75=input("answer== ")

if answer75=="a":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : d ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q76="""If 16 bits are used to represent the exponent of a floating-point number, the maximum

exponent value that can be represented in decimal (i.e., the value y for 10y

) will be

"""

print("question number = 76 :--"+str(Q76))

print("""please enter your answer : """ )

answer76=int(input("answer=="))

if answer76==9860 or 9870:

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : 9860 to 9870 ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q77="""Consider a 6-stage pipeline with stage delays of 35, 40, 25, 50, 45, and 20 nanoseconds,

respectively. The delay of each latch stage is 5 nanoseconds. What will be the total time

required to process 2500 sets of data in the pipeline?

"""

print("question number = 77 :--"+str(Q77))

print("""a. 137.775 microseconds

b. 125.25 microseconds

c. 537.5 microseconds

d. 612.5 microseconds""" )

answer77=input("answer==")

if answer77=="a":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : a ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q78=""" For the following reservation table, what will be the forbidden latencies?

"""

print("question number = 78 :--"+str(Q78))

print("""a. 3

b. 4

c. 5

d. 6

e. 7

""" )

answer78=input("answer==")

if answer78=="a"or'b'or 'd' or 'e':

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : a b d e")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q79=""" For an n-stage pipeline implementation of some computation, the maximum speedup

that can be obtained is upper bounded by:

"""

print("question number = 79 :--"+str(Q79))

print("""a. 2n

b. n

c. 2^n

d. None of the above""" )

answer79=input("answer==")

if answer79=="b":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : b ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q80="""Consider a pipelined processor, where the inter-stage pipeline registers are assumed to

be of zero latency, and the stage delays are specified in nanoseconds. Which of the

following will have the highest clock frequency?

"""

print("question number = 80 :--"+str(Q80))

print("""a. 4-stage pipeline with stage delays 1, 2, 2 and 1

b. 4-stage pipeline with stage delays 1, 1.5, 1.5, and 1.5

c. 5-stage pipeline with stage delays 0.5, 1, 1, 0.6 and 1

d. 5-stage pipeline with stage delays 0.5, 0.5, 0.3, 1 and 1.1""" )

answer80=input("answer==")

if answer80=="c":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : c ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q81="""Which of the following statement(s) is/are false for data organized on a hard disk?

"""

print("question number = 81 :--"+str(Q81))

print("""a. A collection of tracks on various surfaces is called a cylinder.

b. A collection of sectors is called a track.

c. A sector is the smallest unit of data that can be transferred.

d. None of these.""" )

answer81=input("answer==")

if answer81=="d":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : d ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q82="""For a disk rotating at 10,000 rpm, what are the maximum and average rotational delays?

"""

print("question number = 82 :--"+str(Q2))

print("""a. 10 msec and 5 msec

b. 6 msec and 3 msec

c. 8.3 msec and 4.15 msec

d. None of these.""" )

answer82=input("answer==")

if answer82=="b":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : b ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q83=""" Consider a hard disk with a sector size of 1024 bytes, 5000 tracks per surface, 64 sectors

per track, and 8 surfaces. Assuming 1M = 220, the storage capacity of the disk is:

"""

print("question number = 83 :--"+str(Q83))

print("""a. 2500 Mbytes

b. 1280 Mbytes

c. 2325 Mbytes

d. None of these.""" )

answer83=input("answer==")

if answer83=="a":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : a ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q84="""Which of the following statement(s) is/are true?

"""

print("question number = 84 :--"+str(Q84))

print("""a. Solid-state drives are faster than hard disks.

b. Solid-state drives have faster rotational speeds as compared to hard disks.

c. Solid-state drives do not have any moving parts.

d. Solid-state drives are volatile, whereas hard disks are non-volatile.""" )

answer84=input("answer==")

if answer84=="a":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

elif answer84=="c":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : a,c ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q85="""Which of the following is/are not true for input/output ports?

"""

print("question number = 85 :--"+str(Q85))

print("""a. An output port can be designed using a parallel-in parallel-out register.

b. An output port can be designed using a tristate buffer.

c. An input port can be designed using a parallel-in parallel-out register.

d. An input port can be designed using a tristate buffer.

""" )

answer85=input("answer==")

if answer85=="b":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

elif answer85=="c":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : b,c ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q86="""What is the typical nature of an output port in I/O device interfacing?

"""

print("question number = 86 :--"+str(Q86))

print("""a. It is a tri-state bus driver.

b. It is a serial-in parallel-out register.

c. It is a parallel-in parallel-out register.

d. It is used to interface input devices.

""" )

answer87=input("answer==")

if answer87=="c":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : c ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q88=""":In asynchronous data transfer, which of the following is/are true?

"""

print("question number = 88 :--"+str(Q88))

print("""a. CPU periodically checks the status of the I/O device.

b. CPU waits until the I/O device is ready to transfer data.

c. It is suitable for moderate to high speeds of data transfer.

d. CPU utilization is high.""" )

answer88=input("answer==")

if answer88=="a":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

if answer88=="b":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : a,b ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q89="""Which of the following is true for interrupt-driven data transfer?

"""

print("question number = 89 :--"+str(Q89))

print("""a. It is faster than asynchronous data transfer.

b. It is slower than the DMA mode of data transfer.

c. An interrupt signal can arrive at specific times.

d. Typically, an interrupt is acknowledged after completing the instruction being

executed by the CPU.""" )

answer89=input("answer== ")

if answer89=="a":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

elif answer89=="b":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

elif answer89=="d":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is :a,b,d ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q90="""Which of the following statement(s) is/are false for data organized on a hard disk?"""

print("question number = 90 :--"+str(Q90))

print("""a. A collection of tracks on various surfaces is called a cylinder.

b. A collection of sectors is called a track.

c. A sector is the smallest unit of data that can be transferred.

d. None of these.""" )

answer90=input("answer==")

if answer90=="d":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : d ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q91="""Which of the following is/are not true for DMA data transfer?

"""

print("question number = 91 :--"+str(Q91))

print(""" a. Data are transferred directly between the memory and the peripheral without

CPU intervention.

b. CPU puts all its memory bus lines in a high impedance state before data transfer

can begin.

c. It is more suitable for devices where the data transfer rates vary widely.

d. None of these.""" )

answer91=input("answer==")

if answer91=="c":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : c ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q92="""Programmed I/O is not suitable for high-speed data transfer because:"""

print("question number = 92 :--"+str(Q92))

print("""a. To transfer every word between the I/O device and memory, a set of machine

instructions has to be executed.

b. It does not support the synchronous data transmission mode that is required for

many high-speed peripherals like the disk.

c. A lot of CPU time is wasted.

d. None of these.

""" )

answer92=input("answer==")

if answer92=="a":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

elif answer92=="b":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : a,b ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q93="""Suppose that a disk is rotating at a speed of 10,000 rpm, and 120 Kbytes of data are

recorded in every track. Once the disk head reaches the desired track, the sustained

data transfer rate will be .................. Mbytes/sec."""

print("question number = 93 :--"+str(Q93))

print("""please enter your answer """ )

answer93=int(input("answer=="))

if answer93==20:

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : 20 ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q94="""On a non-pipelined sequential processor, the following program segment, that is part of

the Interrupt Service Routine (ISR), is given to transfer 500 bytes from an I/O device to

memory.

Initialize the memory address register

Initialize word count register to 500

Loop: Load a byte from the device

Store in the memory at address given by the address register

Increment the memory address register

Decrement the word count register

If count != 0 goto Loop

Assume that each statement in the program is equivalent to a machine instruction that

takes one clock cycle to execute if it is a non-LOAD/STORE instruction. The LOAD/STORE

instructions take two clock cycles to execute.

The system designer also has an alternate approach of using the DMA controller to

implement the same transfer. The DMA controller requires 20 clock cycles for

initialization and other overheads. Each DMA transfer cycle takes two clock cycles to

transfer one byte of data from the device to the memory.

The approximate speedup when the DMA controller-based design is used in place of the

interrupt-driven approach is ......................"""

print("question number = 2 :--"+str(Q94))

print("""please enter your answer """ )

answer94=str(input("answer== "))

if answer94=="Range 3.40 to 3.50":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : Range 3.40 to 3.50")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q95="""Consider a programmed I/O system where 35 instructions are required to be executed

for the transfer of each word of data. The cycles-per-instruction (CPI) of the machine is

1.3, and the processor clock frequency is 1.5 GHz. The maximum data transfer rate will

be \_\_\_\_\_\_\_\_\_\_\_ million words per second. (Assume 1 million = 106

)

"""

print("question number = 95 :--"+str(Q95))

print("""please enter your answer : """ )

answer95=str(input("answer== "))

if answer95==32.5:

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : Range 32.5 to 33.5")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q96="""The maximum data transfer rate in direct memory access (DMA) transfer depends on:

"""

print("question number = 96 :--"+str(Q96))

print("""a. The processor clock frequency.

b. Access time of main memory.

c. Number of instructions required to transfer a word from an I/O device to

memory, or vice versa.

d. Average cycles per instruction (CPI).""" )

answer96=input("answer==")

if answer96=="b":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : b ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q97="""What is an exception?

"""

print("question number = 2 :--"+str(Q2))

print(""" a.An interrupt signal sent by a device internal to the computer (e.g. timer interrupt).

b.They are generated while an instruction is being executed.

c.They are generated when there is some error during an I/O transfer.

d.None of these.""" )

answer2=input("answer== ")

if answer2=="b":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : d ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q97="""Consider an I/O interface shown below, where the DMA controller supports four DMA

channels. Which of the following statements is/are true?"""

print("question number = 97 :--"+str(97))

print("""a.The DMA controller has three internal registers (word count, memory address, and disk address) that are shared among the four channels.

b.The interrupt request (INTR) signal is activated after the transfer of every word.

c.When an I/O device requests for DMA transfer, the DMA controller activates the DMA-RQ line.

d.The CPU activates the DMA-ACK line after the DMA transfer is complete.

e.The CPU activates the DMA-ACK line after the CPU has relinquished control of the

memory bus.""" )

answer97=input("answer== ")

if answer2=="c":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

elif answer97=='e':

print("\*\*\*correct\*\*\*\*")

score+=1

correct+=1

print("your score is : ",score)

print("total correct answers ; ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : c,e ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q98="""Consider a matrix keyboard consisting of 48 keys, organized as 8 rows and 6 columns.

How many port lines will be required to interface the keyboard?"""

print("question number = 98 :--"+str(Q98))

print("""a.48

b.14

c.8

d.2""" )

answer98=input("answer==")

if answer98=="b":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : d ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q99="""If we apply bit stuffing on the bit stream 100011111110011111101,

the output bit stream will be:"""

print("question number = 99 :--"+str(Q99))

print(""" a.10001111101100111110101

b.1000111111010011111101

c.10001111111000111111001

d.None of these.""" )

answer99=input("answer==")

if answer99=="d":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : d ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q100="""The maximum data transfer rates supported by USB 3.0 and USB 3.1 standards are respectively:

"""

print("question number = 100 :--"+str(Q100))

print("""a.5 Mbits/sec and 10 Mbits/sec

b.5 Gbits/sec and 10 Gbits/sec

c.5 Gbytes/sec and 10 Gbytes/sec

d.None of these.""" )

answer100=input("answer== ")

if answer100=="b":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : b ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q101="""Consider a 5-stage instruction pipeline with stage delays of 35 nsec, 28 nsec, 42 nsec, 38

nsec, and 19 nsec, respectively. The delay of an inter-stage register stage of the pipeline

is 5 nsec. The total time required for the execution of 2000 instructions will be:"""

print("question number = 101 :--"+str(Q101))

print("""a. 94.19 microseconds

b. 94.00 microseconds

c. 88.72 microseconds

d. 83.33 microseconds

e. None of these""" )

answer101=input("answer==")

if answer101=="a":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : a ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q102="""Consider a 5-stage instruction pipeline with stage delays of 25 nsec, 22 nsec, 58 nsec, 32

nsec, and 16 nsec, respectively, and the delay of an inter-stage register stage is 4 nsec.

Suppose the pipeline is modified by splitting the third stage into two simpler stages with

delays of 28 nsec and 33 nsec. For the execution of 2000 instructions, the speedup of

the new 6-stage pipeline over the previous 5-stage pipeline will be \_\_\_\_\_\_\_\_\_."""

print("question number = 102 :--"+str(Q102))

print("""please enter your answer : """ )

answer102=float(input("answer=="))

if answer102==1.670 or 1.680:

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : 1.670 and 1.680")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q103="""Consider a RISC machine where each instruction is 4 bytes long. Conditional and

unconditional branch instructions use PC-relative addressing mode with an Offset

specified in bytes to the target location of the branch instruction. Also, the Offset always

concerns the address of the next instruction in the program sequence. Consider the

following instruction sequence:

Instruction i: ADD R2,R3,R4

Instruction i+1: SUB R5,R6,R7

Instruction i+2: SEQ R1,R9,R10

Instruction i+3: BEQZ R1,Offset

If the target of the branch instruction is i, the decimal value of Offset will be \_\_\_\_\_\_\_\_."""

print("question number = 103 :--"+str(Q103))

print("""pleease enter your answer """ )

answer103=int(input("answer=="))

if answer103==-16:

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : -16 ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q104="""A 5-stage pipelined processor has the stages: Instruction Fetch (IF), Instruction Decode

(ID), Operand Fetch (OF), Execute (EX), and Write Operand (WO). The IF, ID, OF, and WO

stages take one clock cycle each for any instruction. The EX stage takes one clock cycle

for ADD and SUB instructions, three clock cycles for MUL instruction, and six clock cycles

for DIV instruction. Operand forwarding is used in the pipeline (for data dependency, OF

stage of the dependent instruction can be executed only after the previous instruction

completes EX). What is the number of clock cycles needed to execute the following

sequence of instructions?

MUL R2,R10,R1

DIV R5,R3,R4

ADD R2,R5,R2

SUB R5,R2,R6

"""

print("question number = 104 :--"+str(Q104))

print("""a. 13

b. 17

c. 15

d. 19""" )

answer104=input("answer==")

if answer104=="c":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : c ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q105="""Consider an instruction pipeline for the MIPS32 processor where data references

constitute 42% of the instructions, and the ideal CPI ignoring memory structural hazards

is 1.25. How much faster is the ideal machine without the memory structural hazard

versus the machine with the hazard?

"""

print("question number = 105 :--"+str(Q105))

print("""a. 1.34

b. 1.26

c. 1.38

d. None of these.""" )

answer105=input("answer==")

if answer105=="a":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : a ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q106="""For the following MIPS32 program segment, how many stall cycles will be required (i)

without any forwarding hardware or split register access, and (ii) using forwarding

hardware and split register access?

LW R1,10(R2)

ADD R3,R1,R5"""

print("question number = 106 :--"+str(Q106))

print("""a. 3,0

b. 3,1

c. 2,0

d. 2,1""" )

answer106=input("answer==")

if answer106=="b":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correct answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : b ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q107="""Under what conditions can a data hazard occur in a pipeline?"""

print("question number = 107 :--"+str(Q107))

print("""a. Two pipeline stages are trying to access the same hardware resource in the same

cycle.

b. A branch instruction is being executed in the pipeline.

c. An instruction produces a value in some register that is used in the next

instruction.

d. An instruction produces a value in some register that is used in the next to the

next instruction.""" )

answer107=input("answer==")

if answer107=="c":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

elif answer107=='d':

print("\*\*\*correct\*\*\*")

score+=1

correct+=1

print("your score is : ",score)

print("total correct answer is : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : c,d ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q108="""Which of the following are performed during the ID stage in the MIPS32 pipeline?"""

print("question number = 108 :--"+str(Q108))

print("""a. The instruction with the address stored on the PC is fetched from memory.

b. The register operands are pre-fetched.

c. The immediate operand is sign-extended.

d. The memory operand is pre-fetched from memory.""" )

answer108=input("answer==")

if answer108=="b":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

elif answer108=='c':

print("\*\*\*correcr\*\*\*\*\*")

score+=1

correct+=1

print("your score is : - ",score)

print("total correctr score is : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : (b,c) ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q109="""Consider the MIPS32 pipeline with an ideal CPI of 1. Assume that 30% of all instructions

executed are branch, out of which 80% are taken branches. The pipeline speedup for

predict taken and delayed branch approaches to reduce branch penalties will be:"""

print("question number = 109 :--"+str(Q109))

print(""" a. 4.10 and 4.45

b. 3.25 and 4.35

c. 3.67 and 4.25

d. 3.85 and 4.35""" )

answer109=input("answer==")

if answer109=="d":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : d ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q110="""In a MIPS pipeline with Branch Target Buffer (BTB), assume that 85% of the branches are

found in BTB, 10% of the predictions are incorrect, and 80% of the branches are taken.

The branch penalty will be \_\_\_\_\_\_\_\_ clock cycles."""

print("question number = 110 :--"+str(Q110))

print("""please enter your answer : """ )

answer110=float(input("answer=="))

if answer110==0.40 or 0.50:

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : 0.40 to 0.50 ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q111="""In MIPS32 floating-point extension, for double-precision operation,

which of the following is referred to as F16 ?"""

print("question number = 111 :--"+str(Q111))

print(""" a.The floating-point register F16

b.The floating-point register pair <F16,F17>

c. The floating-point register pair <F15,F16>

d.None of these""" )

answer111=input("answer==")

if answer111=="b":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : b ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q112="""What does the term “latency” refer to for multi-cycle arithmetic units?"""

print("question number = 112 :--"+str(Q112))

print("""a.The minimum number of cycles between an instruction producing a result and another instruction using it.

b.The number of clock cycles that must elapse between issuing two operations of the same type.

c.The time elapsed for the requested data in a hard disk to rotate under the read/write head.

d.None of these.""" )

answer112=input("answer==")

if answer112=="a":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : a ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q113="""Which of the following is/are possible for a multi-cycle extension to the MIPS32 pipeline?"""

print("question number = 113 :--"+str(Q113))

print("""a.Read-after-write hazard can occur.

b.Write-after-read hazard can occur.

c.All hazards can be eliminated by using a sophisticated control unit.

d.All of these.""" )

answer113=input("answer==")

if answer113=="a":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

elif answer113=='b':

print("\*\*\*correct\*\*\*")

score+=1

correct+=1

print("your score is : ",score)

print("total correct answer is : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : (a,b) ")

incorrect += 1

print("your incorrect answer is : - ",incorrect)

Q114="""For the following MIPS32 program segment, the number of stall cycles for every iteration of the loop will be \_\_\_\_\_\_\_\_\_\_\_\_. Assume the latency values as mentioned in Lecture-60.

Loop: L.D F14, 0(R5)

SUB.D F16, F14, F2

SUB.D F10, F18, F2

S.D F16, 0(R5)

S.D F10, 8(R5)

ADDI R5, R5, #16

BNE R5, R100, Loop"""

print("question number = 114 :--"+str(Q114))

print("""please enter your answer : """ )

answer114=int(input("answer== "))

if answer114==6:

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : 6 ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q115="""Which of the following statement(s) is/are true for superscalar architectures?"""

print("question number = 115 :--"+str(Q115))

print("""a.The overall CPI is always greater than 1.

b.The overall CPI becomes less than 1.

c.There are multiple instruction execution units that can run in parallel.

d.The compiler selects a set of instructions to be executed in parallel.""" )

answer115=input("answer==")

if answer115=="b":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correct answer : ",correct)

elif answer115=='c':

print("\*\*\*correct\*\*\*")

score+=1

correct+=1

print("your score is := ",score)

print("total correct answers : = ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : (b,c) ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q116="""What are the advantages of a vector processor?"""

print("question number = 116 :--"+str(Q116))

print("""a.Gives good speedup when we carry out similar operations on an array of numbers.

b.No loop overheads are required .

c. The number of instructions gets reduced.

d. All of these.""" )

answer2=input("answer==")

if answer2=="d":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : d ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q117="""In a vector processor, suppose that the start-up time of

vector multiply operation is 25 clock cycles. After start-up, the initiation rate is 4 clock cycles.

The number of clock cycles to process a 128-element vector will be \_\_\_\_\_\_\_\_."""

print("question number = 117 :--"+str(Q117))

print("""please enter your answer """ )

answer2=int(input("answer=="))

if answer2==537:

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : 537 ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q118="""Which of the following statement(s) is/are true for tightly coupled multiprocessors?"""

print("question number = 118 :--"+str(Q118))

print("""a.All the processors have access to a common shared memory.

b.Processors communicate through message passing.

c.The memory is distributed across all the processors.

d.None of these.""" )

answer2=input("answer==")

if answer2=="a":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : a ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q119="""In an interleaved memory system, there are four memory modules,

M0, M1, M2, and M3, each of capacity 16 Kbytes. The address decoder is

fed with the address lines A0 and A1, while the address lines A2-A15 are

connected to the memory modules.

The memory addresses 20C5H and 20C6H will be mapped to the memory modules:"""

print("question number = 119 :--"+str(Q119))

print(""" a.M0 and M1

b.M1 and M2

c.M2 and M3

d.M3 and M0""" )

answer119=input("answer==")

if answer119=="b":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : b ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

Q120="""What is the purpose of loop unrolling?"""

print("question number = :--"+str(Q120))

print(""" a.To expose more instruction level parallelism.

b.To reduce the total number of instructions to be executed.

c.To reduce the number of registers required.

d.All of these.""" )

answer120=input("answer==")

if answer120=="a":

print("\*\*\*\*correct\*\*\*\*\*\*")

score += 1

correct += 1

print("your score is :-- ",score)

print("total correctr answer : ",correct)

else:

print("incoorect")

print("\*\*\* correct answer is : a ")

incorrect += 1

print("ypur incorrect answer is : - ",incorrect)

time.sleep(2.0)

print("\*\*\*\*\*\*\*\*\*GAME OVER\*\*\*\*\*\*\*\*\*\*\*\*")

print("you got == " + str(score) +" total score")

print("you got = " + str(correct) +"correct ")

print("you got = " +str(incorrect) + "incorrect ")

print("you got == "+ str((score/120)\*100) + "%")

print("\*\*\*\*\*thank you\*\*\*\*\*\*")