

CLASS XI FIRST TERMINAL EXAMINATION 2023-24 Time: 3 HRS

Date:15/09/23 Subject: INFORMATICS PRACTICES (065) Max Marks: 70

# **MARKING SCHEME**

| QNo. | Section-A  | Marks |
|------|--|-------|
| 1    | Which of the following is an invalid identifier?   | 1     |
|      | a. Class_ul b. csclass12 ccsclass12 d <b>. 5num</b>  |       |
| 2    | Which of the following operator is floor division in Python?  (a) // (b) ? (c) + (d) >   | 1     |
| 3    | Consider the given expression: not True and False or True  | 1     |
|      | Which of the following will be correct output if the given expression is evaluated?  (a) <b>True</b> (b) False (c) NONE (d) NULL |       |
| 4    | Identify the immutable data types?   | 1     |
|      | (i) List (ii) set (iii) Dictionary (iv) String   | 4     |
| 5    | What is the full form of RAM.  a) Read Access Memory  b) Random Access Memory  | 1     |
|      | c)Raw Access Memory d)Right Access Memory  |       |
| 6    | Storage of 1KB means the following number of bytes:  1000 b)964 c) 1024 d)1064   | 1     |
| 7    | 6  | 1     |
| 8    | ALU<br>CU  | 1     |
| 9    | b) "john" and "peter"  | 1     |
| 10   | 5 3  | 1     |
| 11   | Interactive script   | 1     |
| 12   | Who developed python programming language  a. Alan Turing b.Dennis Richie c. Guido Van Rossum d.Tim Berners Lee                  | 1     |
| 13   | are reserved words used by python interpreter to recognize the   | 1     |
|      | structure of a program. i) Identifiers ii) Tokens iii) Literals iv) <b>Keywords</b>  |       |
| 14   | The symbol used to end the if statement:   | 1     |
|      | i) Semicolon(;) ii) Hyphen(-) iii) Underscore(_) iv) colon(:)  |       |
| 15   | Dict={10:"ANT",20:"FROG",30:"COW",40:"GOAT"}   | 1     |
| 16   | Identify the data type of NEW:   | 1     |
|      | NEW= [10,30,50,'A','B',55,25]  |       |
|      | a. Dictionary b. String c. Tuple <b>d. List</b>  |       |

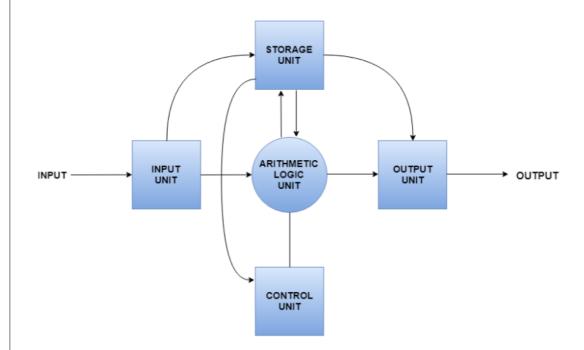
| 17 | <b>Assertion</b> (A): Python is a Free and Open source language.   | 1 |
|----|--|---|
|    | <b>Reason</b> ( <b>R</b> ): Python is a cross platform language.   |   |
|    | (a) Both A and R are true and R is the correct explanation for A   |   |
|    | (b) Both A and R are true and R is not the correct explanation for A   |   |
|    | (c) A is True but R is False   |   |
|    | (d) A is false but R is True   |   |
| 18 | Assertion(A): list is a mutable data type Reasoning(R): Once the list is defined we can change the values in the list. | 1 |
|    | (a) Both A and R are true and R is the correct explanation for A   |   |
|    | (b) Both A and R are true and R is not the correct explanation for A   |   |
|    | (c) A is True but R is False   |   |
|    | (d) A is false but R is True   |   |
|    | SECTION-B  |   |
| 19 | Evaluate the following expressions:  | 2 |
|    | (a) 2  |   |
|    | (b) False  |   |
| 20 | 25   | 2 |
|    | 50   |   |
|    | 75   |   |
|    |  |   |
|    |  |   |
|    | .475   |   |
| 21 | Objects in Python can be either mutable or immutable. List, Sets, and Dictionary in                                    | 2 |
|    | Python are examples of some mutable data types in Python. Immutable data types   |   |
|    | are those, whose values cannot be modified once they are created. Examples of  |   |
|    | immutable data types are int, str, bool, float, tuple, etc.  |   |
|    | OR   |   |
|    | . Keywords refer to the reserved words of Python which have a special fixed  |   |
|    | meaning for the interpreter which we call keywords. Similarly, we cannot use any                                       |   |
|    | keyword as an identifier. On the other hand, the variable is like a container that                                     |   |
|    | stores values that we can access or change.  |   |
| 22 | For I in range(2,21,2):  | 2 |
|    | Print(i)   |   |
|    |  |   |
|    | OR   |   |
|    | For I in range(105,200,5):   |   |
|    |  |   |

| 23 | Observe the following code carefully and rewrite it after removing all syntax and logical | 2 |
|----|---|---|
|    | errors. Underline all the corrections made.   |   |
|    | num=int(input("Enter a value))  |   |
|    | If num>10   |   |
|    | Print(num)  |   |
|    | else  |   |
|    | print(num+1)  |   |
| 24 | Predict the output of the following code.   | 2 |
|    | "Or learning python?yes python is Free software"  |   |
| 25 | Memory is also used by a computer's operating system, hardware and software.              | 2 |
|    | There are technically two types of computer memory: primary and secondary. The            |   |
|    | term memory is used as a synonym for primary memory or as an abbreviation for a           |   |
|    | specific type of primary memory called random access memory (RAM).                        |   |
|    | Section- C  |   |
| 26 | A=10  | 3 |
| 20 | B=12  | 3 |
|    | If A>B:   |   |
|    | Print(A,"is greater")   |   |
|    | Else:   |   |
|    | Print(B,"is greater")   |   |
|    | OR  |   |
|    | N=10  |   |
|    | For I in range (1,10):  |   |
|    | Print(I,"*10=",i*10)  |   |
| 27 | a) Write the output from the following code:  | 3 |
|    | "False"   |   |
|    | b) Write the output of the following codes:   |   |
|    | "a and b ,c :" 25 13 16   |   |
|    | OR  |   |
|    | Find the output.  |   |
|    | 5 10  |   |
|    |   |   |
|    | 10 1 -6   |   |
|    |   |   |
| 28 | i. some of the main benefits of Python include its ease of use, concise and               | 3 |
|    | straightforward syntax, and vast libraries. Other Python advantages are its               |   |
|    | portability, versatility, large user base, and free & open source license.                |   |
|    | Some of the disadvantages of Python include its slow speed and heavy                      |   |
|    | memory usage.   |   |
|    | ii. Give the output of the following  |   |
|    | a)"4+6" b)10  |   |
| 29 | a) They are building blocks of the source code. Python language supports the              | 3 |
|    | different types of tokens that are as follows: Keywords (Reserved words):                 |   |
|    | True, False, None, class, continue, break, if, elif, else, from, or, def, del, import,    |   |
|    | etc. Identifier : User-defined names.   |   |
|    | A=10  |   |
|    | B=12  |   |
|    | If A>B:   |   |
|    | Print(A,"is greater")   |   |

|     | Else: Print(B,"is greater")  |   |
|-----|--|---|
| 30  | A compiler is a program that converts the entire source code of a programming language into executable machine code for a CPU. An interpreter takes a source program and runs it line by line, translating each line as it comes to it.  N=int(input("enter a no"))  | 3 |
|     | If n%10==0: Print("divisible")   |   |
|     | Section-D  |   |
| 31. | a) Which of the following names are invalid and why?  i. Serial_no. valid  ii. 1st_Room not valid  iii. Hundred\$ not valid  iv. Total Marks not valid  v. Total_Marks valid  vi. True not valid  b) tuple  OR  a)Identify the types of the following literals.  i. int  ii. float  iii. string  iv. string  v. boolean  vi. list  b)5.0 and 5 | 4 |
| 32. | write the output of the given codes. i. "sorry" ii. 20 22 24 26 28 iii. 10 11 12 13 14 15  | 4 |
|     | SECTION E  | Г |
| 33. | A computer system is basically a machine that simplifies complicated tasks. It should maximize performance and reduce costs as well as power consumption. The different components in the Computer System Architecture   |   |

are Input Unit, Output Unit, Storage Unit, <u>Arithmetic Logic Unit, Control</u> Unit etc.

A diagram that shows the flow of data between these units is as follows –



### Input Unit

The input unit provides data to the computer system from the outside. So, basically it links the external environment with the computer. It takes data from the input devices, converts it into machine language and then loads it into the computer system. Keyboard, mouse etc. are the most commonly used input devices.

### Output Unit

The output unit provides the results of computer process to the users i.e it links the computer with the external environment. Most of the output data is the form of audio or video. The different output devices are monitors, printers, speakers, headphones etc.

#### Storage Unit

Storage unit contains many computer components that are used to store data. It is traditionally divided into **primary storage** and **secondary storage**. Primary storage is also known as the main memory and is the memory directly accessible by the **CPU**. Secondary or external storage is not directly accessible by the CPU. The data from secondary storage needs to be brought into the primary storage before the CPU can use it. Secondary storage contains a large amount of data permanently.

## • Arithmetic Logic Unit

All the calculations related to the computer system are performed by the arithmetic logic unit. It can perform operations like addition, subtraction, multiplication, division etc. The control unit transfers data from storage unit to arithmetic logic unit

|     | <ul> <li>when calculations need to be performed. The arithmetic logic unit and the control unit together form the central processing unit.</li> <li>Control Unit  This unit controls all the other units of the computer system and so is known as its central nervous system. It transfers data throughout the computer as required including from storage unit to central processing unit and vice versa. The control unit also dictates how the memory, input output devices, arithmetic logic unit etc. should behave.</li> </ul> |   |
|-----|---|---|
| 34. | a)sequence of characters b)s="Python Programming" 18 c)c o m p u t e r OR a)interpreter language b) 1 3 5 7 9   | 5 |
| 35. | <ul> <li>a) For I in range(102,200,2):</li></ul>  | 5 |