# MODEL QUESTION PAPER COMPUTER SCIENCE 

## 12th Standard (State Board)

Time: 3 Hours
Maximum Marks: 70
General Instructions:

1. The question paper comprises of four parts.
2. You are to attempt all the parts. An internal choice of questions is provided wherever applicable.
3. All questions of Part I, II, III and IV are to be attempted separately.
4. Question numbers 1 to 15 in Part I are Multiple Choice Questions of one mark each. These are to be answered by choosing the most suitable answer from the given four alternatives and writing the option code and the corresponding answer
5. Question numbers 16 to 24 in Part II are two-mark questions. These are to be answered in about one or two sentences.
6. Question numbers 25 to 33 in Part III are three-mark questions. These are to be answered in about three to five short sentences.
7. Question numbers 34 to 38 in Part IV are five-mark questions. These are to be answered in detail Draw diagrams wherever necessary.
Part - I

Choose the correct answer.
Answer all the questions: $[15 \times 1=15]$

| 1 | The file extension to save excel files are <br> (a) xls or xlsx <br> (b) XL <br> (c) exe or XL <br> (d) XL or XLX | 1 |
| :--- | :--- | :---: |
| 2 | Python has a collector to clean up unreferenced object. <br> (a) CSV <br> (b) Diet <br> (c) garbage <br> (d) close | 1 |
| 3 | How many types of DML are there? <br> (a) 1 <br> (b) 2 <br> (c) 3 <br> (d) 4 | 1 |


| 4 | To open the file updating data, click $\qquad$ <br> (a) a <br> (b) b <br> (c) t <br> (d) + | 1 |
| :---: | :---: | :---: |
| 5 | g++ is a program that calls GNU C compiler called $\qquad$ <br> (a) GCC <br> (b) CCC <br> (c) GGC <br> (d) GGG | 1 |
| 6 | $\qquad$ are used for interfacing with C programs. <br> (a) C types <br> (b) cython <br> (c) M in GW <br> (d) Boost python | 1 |
| 7 | Which function is used to print the data in dictionary format without order? <br> (a) $\operatorname{dic}()$ <br> (b) $\operatorname{dict}()$ <br> (c) dictionary <br> (d) print | 1 |
| 8 | $\qquad$ is a list containing another list as an element. <br> (a) N list <br> (b) Nested list <br> (c) List <br> (d) Add list | 1 |
| 9 | In python, $\qquad$ function is used to accept data as input at run time. <br> (a) accept <br> (b) int <br> (c) input <br> (d) in | 1 |
| 10 | Which one of the following is the exponential operator? <br> (a) * <br> (b) ** <br> (c) ++ <br> (d) // | 1 |
| 11 | A $\qquad$ is a part of a program. <br> (a) code <br> (b) module | 1 |


|  | (c) flow chart <br> (d) system software |  |
| :--- | :--- | :---: |
| 12 | The arrangement of private instance variables and public methods ensures <br> the principle of <br> (a) security <br> (b) data encapsulation <br> (c) class <br> (d) inheritance | 1 |
| 13 | How many operands are there in ternary operator? <br> (a) 0 <br> (b) 1 <br> (c) 2 <br> (d) 3 | 1 |
| 14 | Pow (2, -3) gives <br> (a) 8 <br> (b) -8 <br> (c) 0.125 <br> (d) 1 | 1 |
| 15 | (a) usage |  |
| (b) label <br> (c) values <br> (d) $=$ | 1 |  |

Part - II
Answer any six questions.
Question No. 21 is compulsory. [6 x $2=12$ ]

| 16 | Differentiate Interface and Implementation. | 2 |
| :---: | :--- | :--- |
| 17 | Give example for valid Identifiers. | 2 |
| 18 | Define SQL. | 2 |
| 19 | Give example for open function. | 2 |
| 20 | Write about 'init' functions. | 2 |
| 21 | Write a program to print the following output. | 2 |
| 22 | Which punctuation should be used in the blank? <br> if <condition>-_ <br> statements-block 1 <br> else: <br> statements-block 2 |  |


|  | (a) ; <br> (b) $:$ <br> (c) $::$ <br> (d) ! |  |
| :--- | :--- | :---: |
| 23 | Define Required Arguments. | 2 |
| 24 | Write note on Assignment operators. | 2 |

Part - III

Answer any six questions.
Question No. 29 is compulsory. $[6 \times 3=18]$

| 25 | Write note on Asymptotic Notations. Classify them. | 3 |
| :--- | :--- | :---: |
| 26 | Write note on CSV files. | 3 |
| 27 | Write note on where clause in SQL. | 3 |
| 28 | Give an example and syntax for group by clause. | 3 |
| 29 | Illustrate with an example program to change global variable from inside a <br> function using global keyword. | 3 |
| 30 | Write note on Lambda functions. | 3 |
| 31 | Give any 3 applications of scripting language. | 3 |
| 32 | Give program to join two tuples | 3 |
| 33 | Find output: <br> for x in range $(2,11,2):$ <br> Print (x) | 3 |

Part - IV

Answer all the following questions. [ $5 \times 5=25$ ]

| 34 | (a) Compare CSV files with XLS file. <br> [OR] <br> (b) Explain any 5 important features of python over C++. | 5 |
| :---: | :---: | :---: |
| 35 | (a) Write a program to update a change range of values. <br> [OR] <br> (b) Explain list and range () functions in python with sample program. | 5 |
| 36 | (a) Find output: $\mathrm{T}=(12,78,91 \text {, "Tamil", "Telugu", 3.14, 69.48) }$ <br> 1. Print (T) <br> 2. Print (T [2:5]) <br> 3. Print (T[:5] ) | 5 |


|  | 4. Print ( T[4:] ) <br> 5. Print ( T [:]), 91, "Tamil", "Telugu", 3.14, 69.48) <br> [OR] |  |
| :--- | :--- | :---: |
| (b) Find Output: <br> $\mathrm{T}=(2,4,6,8,10)$ <br> Print (T) <br> del T <br> Print (T) |  |  |
| 37 | (a) Differentiate Algorithm with program. <br> (b) Explain the various characteristics of an Algorithm. | 5 |
| 38 | (a) Explain literals in python. <br> [OR] | 5 |

