**INDIAN SCHOOL AL WADI AL KABIR**

**Sample Paper**

**SUB: Computer Science (083)**

Date: Time Allowed:3 hours

Class: XII Maximum Marks: 70

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| *General instructions*:  • Please check that this question paper contains 35 questions.  • The paper is divided into 5 Sections- A, B, C, D and E.  • Section A, consists of 18 questions (1 to 18). Each question carries 1 Mark.  • Section B, consists of 7 questions (19 to 25). Each question carries 2 Marks.  • Section C, consists of 5 questions (26 to 30). Each question carries 3 Marks.  • Section D, consists of 2 questions (31 to 32). Each question carries 4 Marks.  • Section E, consists of 3 questions (33 to 35). Each question carries 5 Marks.  • All programming questions are to be answered using Python Language only | | |
|  | **SECTION –A** |  |
| **Q. No.** | **Question** | **Marks** |
| 1. | Which of the following is an invalid identifier?   1. CS\_class\_XII 2. csclass12 3. \_csclass12 4. 12CS | 1 |
| 2. | Which of the is a correct statement? a. xyz = 10 100 1000  b. x y z = 10 100 1000  c. x, y, z = 10, 100, 1000  d. x y z= 10, 100, 1000 | 1 |
| 3. | Aman wants to write a function in python. But he doesn’t know how to start with it! Select the keyword used to start a function out of the following:   1. function 2. start 3. def 4. fun | 1 |
| 4. | Which of the following is not a part of the python function?   1. function header 2. return statement 3. parameter list 4. function keyword | 1 |
| 5. | Which of the following is the correct statement for checking the presence of a key in the dictionary?  a) <key> in <dictionary\_object>  a) <key> not in <dictionary\_object>   1. <key> found in <dictionary\_object> 2. a) <key> exists in <dictionary\_object> | 1 |
| 6. | What will be the output of : t=(4,5,6)  del t[1] print(t)  a) (4,6) b) ([4,6])  c) [4,6] d) Error | 1 |
| 7. | Which of the following statement is correct?   1. Tuples are mutable. 2. Tuples are immutable. 3. Tuples and lists are same. 4. All of these are correct. | 1 |
| 8. | What will be the output of following code:  txt="Term 1"  print(txt\*2)   1. Term 1 Term 2 2. Term 1Term 1 3. Term 1 2 4. TTeerrmm 11 | 1 |
| 9. | The append() method adds an element at   1. first 2. last 3. specified index 4. at any location | 1 |
| 10. | Which point can be considered as difference between string and list?   1. Length 2. Indexing and Slicing 3. Mutability 4. Accessing individual elements | 1 |
| 11. | If n=”Hello” and user wants to assign n[0]=’F’ what will be the result?   1. It will replace the first character 2. It’s not allowed in Python to assign a value to an individual character using index 3. It will replace the entire word Hello into F 4. It will remove H and keep rest of the characters | 1 |
| 12. | In list slicing, the start and stop can be given beyond limits. If it is then   1. raise exception IndexError 2. raise exception ValueError 3. return elements falling between specified start and stop values 4. return the entire list | 1 |
| 13. | Ms. Hetvee is working on a string program. She wants to display last four characters of a string object named s. Which of the following is statement is true?  a. s[4:]  b. s[:4]  c. s[-4:]  d. s[:-4] | 1 |
| 14. | Which of the following statement is true for extend() list method?   1. adds element at last 2. adds multiple elements at last 3. adds element at specified index 4. adds elements at random index | 1 |
| 15. | The statement del l[1:3] do which of the following task?   1. deletes elements 2 to 4 elements from the list 2. deletes 2nd and 3rd element from the list 3. deletes 1st and 3rd element from the list 4. deletes 1st, 2nd and 3rd element from the list | 1 |
| 16. | If l=[11,22,33,44], then output of print(len(l)) will be   1. 4 2. 3 3. 8   d. 6 | 1 |
| 17. | Assertion(A) The personal area Network (PAN) is established within a very small area(20 to 30 sq ft) to share the information.  Reason (R ): The campus are network is used to interconnect the computers located within a campus such as university campus, corporate campus, hospital campus etc.  Based on the above discussion, choose an appropriate state form the options given below:   1. Both assertion and reason are true and the reason is the correct explanation of assertion. 2. Both assertion and reason are true but the reason is not the correct explanation of assertion. 3. Assertion is true but reason is false. 4. Assertion is false but reason is true. 5. Assertion and reason both are wrong. | 1 |
| 18. | Assertion ( A) : In SQL, the aggregate function Avg() calculates the average value on a set of values and produce a single result.  Reason ( R) : The aggregate functions are used to perform some fundamental arithmetic tasks such as Min(),Max(), Sum() etc   1. Both assertion and reason are true and the reason is the correct explanation of assertion. 2. Both assertion and reason are true but the reason is not the correct explanation of assertion. 3. Assertion is true but reason is false. 4. Assertion is false but reason is true. 5. Assertion and reason both are wrong. |  |
|  | **Section B** |  |
| 19. | Evaluate the following expressions: a) 7\*3+4\*\*2//5-8  b) 7>5 and 8>20 or not 12>4 | 2 |
| 20. | Write down the fullform of :  A. FTP b) HTML c) SMTP d) VoIP | 2 |
| 21. | What are actual and formal parameters in Functions? Differentiate using  example. | 2 |
| 22. | Write the queries for the following questions using the table Product with the following fields. (P\_ Code, P\_Name, Qty, Price)   1. Display the price of product having code as P06. 2. Display the name of all products with quantity greater than 50 and price   less than 500 | 2 |
| 23. | Give two characteristics of Stacks | 2 |
| 24. | In the table Loan below   1. Identify the candidate key(s) from the table Loan   (b) Which field will be considered as the foreign key if the tables Customers and Loan are related in a database? |  |
| 25. | Rewrite the following code in Python after removing all syntax error(s). Underline each correction done in the code.  Value=30  for VAL in range(0,Value) If val%4==0:  print (VAL\*4) Elseif val%5==0:  print (VAL+3)  else  print(VAL+10) | 2 |
|  | **Section C** |  |
| 26. | Coach Abhishek stores the races and participants in a dictionary. Write a program, with separate user defined functions to perform the following operations:   1. Push() Push the names of the participants of the dictionary onto a stack, where the distance is more than 100. 2. PoP() Pop and display the content of the stack. For example:   If the sample content of the dictionary is as follows: Races ={100:'Varnika', 200 :'Jugal', 400:'Kushal', 800:'Minisha'}}  The output from the program should be: Minisha Kushal Jugal |  |
| 27. | a) Write the outputs of the SQL queries (i) to (iv) based on the relations Teacher and Placement given below:    (i) SELECT Department, sum(Salary) FROM Teacher WHERE Salary>12000 GROUP BY Department;   1. SELECT MAX(Date\_of\_Join),MIN(Date\_of\_Join) FROM Teacher WHERE Gender=’M’; 2. SELECT Name, Salary, T.Department, Place FROM Teacher T, Placement P WHERE T.Department = P.Department AND T.Department Like ‘%o%; | 3 |
| 28. | Write a program to count a total number of lines and count the total number of lines starting with ‘A’, ‘B’, and ‘C’. (Consider the merge.txt file)  Or  Write a method/function DISPLAYWORDS() in python to read lines from a text file STORY.TXT, and display those words, which are less than 4 characters. |  |
| 29. | You are a student in CBSE school. 1 Teacher has given a task to write a python code to perform the following binary file operations with the help of  two user defined functions/modules:   1. Addrecord() to create a binary file called school.dat containing student information (in list datatype) - student number, name, marks(out of 100) of each student.   Or   1. Search() to display name and marks of the student by asking the student number from the user. | 3 |
| 30. | Give the output of the following Queries from the given table:       1. SELECT COUNT(age) FROM employee WHERE age>33; 2. Select COUT(distinct department) from EMPLOYEE; 3. Select MAX(Age) from EMPLOYEE where SEX =”F”; | 3 |
|  | **Section D** |  |
| 31. | a.Find an output of the following code  def func(b):  global x print(‘Global x=’, x) y = x + b  x = 7  z = x – b print(‘Local x = ‘,x)  print(‘y = ‘,y)  print(‘z = ‘,z)  x=3  func(5)  b.What is the difference between Positional arguments and Keyword arguments? | 4 |
| 32. | Consider the table ‘PERSONS’ given below   1. Display the SurNames, FirstNames and Cities of people residing in Udhamwara city. 2. Display the Person Ids (PID), cities and Pincodes of persons in descending order of Pincodes. 3. Display the First Names and cities of all the females getting Basic salaries above 40000. 4. Display First Names and Basic Salaries of all the persons whose   firstnames starts with “G” | 4 |
| **Section E** | | |
| 33. | China Middleton Fashion is planning to expand their network in India, starting with two cities to provide infrastructure for distribution of their products. The company has planned to setup their main office in Chennai at three different locations and have named their offices as Production Unit, Finance Unit and Media Unit. The company’s rough layout of the same is as follows: its Corporate Unit in Delhi. A rough layout of the same is as follows:      (i) Suggest the kind of network required (out of LAN, MAN, WAN) for each of the following units.   1. Production Unit and Media Unit 2. Production Unit and Finance Unit   (ii) Which of the following devices will you suggest for connecting all computers with each of their office units?  (a) Switch/Hub (b) Modem (c) Telephone  (iii) Suggest a cable/wiring layout for connecting the company’s local office units located in Chennai. Also, suggest an effective method/technology for  connecting the company’s office unit located in Delhi | 5 |
| 34. | What is the advantage of using a csv file for permanent storage?’  Write a Program in Python that defines and calls the following user defined functions:   1. ADD() – To accept and add data of a student to a CSV file ‘Stud.csv’. Each record consists of a list with field elements as studid,s name and Smark to store student id, student name and student percent marks respectively. 2. Count() – To count the number of records present in the CSV file where Smark is greater then 75% from stud.csv.   **OR**  Give any one point of difference between a binary file and a csv file.  Write a Program in Python that defines and calls the following user defined functions:   1. add() – To accept and add data of a client to a CSV file ‘Client.csv’. Each record consists of a list with field elements as Cid, Cname and CCity   search()- To display the records of the Clients whose city is KOCHI | 5 |
| 35. | A table student is created in the database school.    Develop an interface through python that inserts the given row of data using MySQL. | 5 |

***All the Best***