

O. P. JINDAL SCHOOL, SAVITRI NAGAR
Periodic Test - III (2025 – 2026) (Round 1)

Class : XII
Subject: Computer Science (083)

MM: 20
Time: 1 Hr.

General Instructions: All questions are compulsory.

1. Question Paper contains 14 Questions.
 2. Questions 01-05 in Section-A.
 3. Questions 06-10 in Section-B.
 4. Questions 11-14 in Section-C.
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Section-A

Multiple Choice Questions.

Q1. To fetch one record from the results_{et}, you may use <cursor> . _____ method. (1)

- a) fetch()
- b) fetchall()
- c) fetchone()
- d) fetchmany()

Q2. To run an SQL query from within python, you may use <cursor> . _____ method(). (1)

- a) query()
- b) execute()
- c) run()
- d) all of these

Q3. To establish a connection between Python and SQL database, connect() is used. Which of the following arguments may not necessarily be given while calling connect() ? (1)

- (a) host
- (b) database
- (c) user
- (d) password

- Q4.** Which of the following keywords are not specific to exception handling? (1)
(a) Try (b) except (c) finally (d) else
- Q5.** Errors resulting out of violation of programming language grammar rules are known as ____? (1)
(a) Compile time error (b) Logical error (c) Runtime error (d) Exception

Section-B

Very short type answers.

- Q6.** What is Database Connectivity? (1)
- Q7.** When is exception Handling required? (1)
- Q8.** What is Data Structure? (1)
- Q9.** Which topology is based on a central node which acts as a hub ? (1)
i) Bus topology
ii) Star topology
iii) Tree topology
iv) Hybrid Topology
- Q10.** Write the full form of the following. (1)
i) ARPANET ii) WiMax

Section-C

Short type answers.

- Q11.** Rajesh has purchased a new Smart TV and wants to cast a video from his mobile to his new Smart TV. Identify the type of network he is using: (1)
a. LAN b. MAN c. WAN d. PAN
- Q12.** The code given below reads the following record from the table named student and displays only those records who have marks greater than 75: (2)
RollNo – integer
Name – string
Clas – integer
Marks – integer

Note the following to establish connectivity between Python and MYSQL:

- ☐ Username is root
- ☐ Password is tiger
- ☐ The table exists in a MYSQL database named school.

Write the following missing statements to complete the code:

Statement 1 – to form the cursor object

Statement 2 – to execute the query that extracts records of those students whose marks are greater than 75.

Statement 3- to read the complete result of the query (records whose marks are greater than 75) into the object named data, from the table student in the database.

```
import mysql.connector as mysql
def sql_data():

con1=mysql.connect(host="localhost",user="root",
password="tiger", database="school")
    mycursor=_____ #Statement 1
    print("Students with marks greater than 75 are : ")
    _____ #Statement 2
    data=_____ #Statement 3
    for i in data:
        print(i)
    print()
```

Q13. Kabir wants to write a program in Python to insert the following record in the table named Student in MYSQL database, SCHOOL: (2)

- ☐ rno(Roll number)- integer
- ☐ name(Name) - string
- ☐ DOB (Date of birth) – Date
- ☐ Fee – float

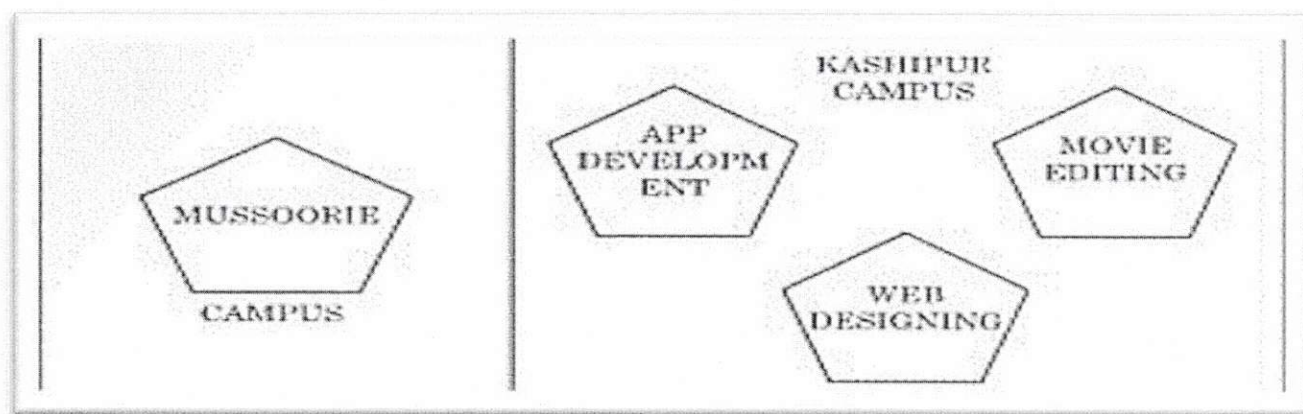
Note the following to establish connectivity between Python and MySQL:

- ☐ Username - root
- ☐ Password - tiger
- ☐ Host - localhost

The values of fields rno, name, DOB and fee has to be accepted from the user. Help Kabir to write the program in Python.

14. (5)

MakeInIndia Corporation, an Uttarakhand-based IT-training company, is planning to set up training centres in various cities in the next 2 years. Their first campus is coming up in the Kashipur district. At the Kashipur campus, they are planning to have 3 different blocks for **App Development Block**, **Web Designing Block** and **Movie Editing Block**. Each block has a number of computers that are required to be connected in a network for communication, data and resource sharing. As a network consultant of this company, you have to suggest the best network-related solutions for them for issues/problems raised in question nos. (1) to (5), keeping in mind the distances between various blocks/locations and other given



parameters.

Distance Between various Blocks / Locations :

BLOCK	DISTANCE
App Development to Web Designing	28 m
App Development to Movie Editing	55 m
Web Designing to Movie Editing	32 m
Kashipur Campus to Mussoorie Campus	232 Km

Number of Computers :

BLOCK	NO OF COMPUTERS
App Development Block	75
Web Designing Block	50
Movie Editing Block	80

1. Suggest the most appropriate block location to house the SERVER in the Kashipur Campus (out of the 3 blocks) to get best and effective connectivity. Justify your answer?
2. Suggest a device /software to be installed in the Kashipur Campus to take care of data security?
3. Suggest the best wired medium and draw the cable layout (Block to Block) to economically connect various blocks with in the Kashipur Campus?
4. Suggest the placement of the following devices with appropriate reasons :
 - (a) Switch/Hub
 - (b) Repeater

Suggest the protocol that shall be needed to provide Video Conferencing solution between Kashipur Campus and Mussoorie Campus