

**DIRECTORATE OF EDUCATION, GNCT OF DELHI**  
**CLASS XII – SESSION 2026-27**  
**COMPUTER SCIENCE**  
**CODE NO. 083**  
**MID TERM PRACTICE PAPER**

**TIME ALLOWED: 3 HRS.**

**MAXIMUM MARKS: 70**

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**General Instructions:**

- This question paper contains 37 questions.
- All questions are compulsory. However, internal choices have been provided in some questions. Attempt only one of the choices in such questions.
- The paper is divided into five sections: A, B, C, D and E.
- Section A consists of 21 questions (1 to 21). Each question carries 1 Mark.
- Section B consists of 7 questions (22 to 28). Each question carries 2 Marks.
- Section C consists of 3 questions (29 to 31). Each question carries 3 Marks.
- Section D consists of 4 questions (32 to 35). Each question carries 4 Marks.
- Section E consists of 2 questions (36 to 37). Each question carries 5 Marks.
- All programming questions are to be answered using Python language only.
- In the case of MCQs, the text of the correct option should also be written.

| Q. No.   | QUESTION                                                                                                                                                          | MARKS    |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
|          | <b>Section A</b>                                                                                                                                                  |          |
| <b>1</b> | <b>State True or False:</b><br><br>A Python function can return multiple values in a single return statement; the comma-separated values are returned as a tuple. | <b>1</b> |
| <b>2</b> | <b>Which method moves the file pointer to a specified position in an open file?</b><br><br>(A). tell()<br>(B). seek()<br>(C). move()<br>(D). point()              | <b>1</b> |
| <b>3</b> | <b>What is the output?</b><br><pre>def calc(a, b=5):     return a + b print(calc(7))</pre> (A). 5<br>(B). 7<br>(C). 12<br>(D). Error                              | <b>1</b> |
| <b>4</b> | <b>Which exception is raised by int("12.5")?</b><br>(A). TypeError<br>(B). ValueError<br>(C). NameError<br>(D). EOFError                                          | <b>1</b> |
| <b>5</b> | <b>Which clause is executed only when no exception is raised in the try block?</b><br><br>(A). finally<br>(B). else                                               | <b>1</b> |

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|           | (C). except<br>(D). raise                                                                                                                                                                                            |          |
| <b>6</b>  | <b>What is the output of:</b><br><code>print(29 % 6 + 29 // 6)</code><br>(A). 8<br>(B). 9<br>(C). 10<br>(D). 11                                                                                                      | <b>1</b> |
| <b>7</b>  | <b>Which csv.writer method writes several rows supplied as a sequence of rows?</b><br><br>(A). writerow()<br>(B). writerows()<br>(C). rows()<br>(D). writeall()                                                      | <b>1</b> |
| <b>8</b>  | <b>A stack S is implemented using a Python list. Which expression accesses its top element without removing it?</b><br><br>(A). S[0]<br>(B). S[-1]<br>(C). S.pop(0)<br>(D). S.remove(-1)                             | <b>1</b> |
| <b>9</b>  | <b>What happens when pickle.load() is used on a file that contains no more pickled objects?</b><br><br>(A). It returns 0<br>(B). It returns None<br>(C). EOFError is raised<br>(D). The file is closed automatically | <b>1</b> |
| <b>10</b> | <b>Which of the following correctly defines a function with one parameter?</b><br>(A). <code>def show(x):</code><br>(B). <code>def show x:</code>                                                                    | <b>1</b> |

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|           | (C). function show(x):<br>(D). show def(x):                                                                                                                             |          |
| <b>11</b> | <b>What is the output?</b><br><pre>S = [10, 20] S.append(30) x = S.pop() print(x, S)</pre> (A). 30 [10, 20]<br>(B). 10 [20, 30]<br>(C). 30 [10, 20, 30]<br>(D). 20 [10] | <b>1</b> |
| <b>12</b> | <b>Which file mode opens a text file for both writing and reading and truncates the file if it already exists?</b><br><br>(A). r+<br>(B). a+<br>(C). w+<br>(D). rb+     | <b>1</b> |
| <b>13</b> | <b>What does the text-file method read(5) attempt to return?</b><br>(A). Five lines<br>(B). Five words<br>(C). Up to five characters<br>(D). The fifth character only   | <b>1</b> |
| <b>14</b> | <b>Which dictionary method returns a view of all key-value pairs?</b><br>(A). keys()<br>(B). values()<br>(C). items()<br>(D). get()                                     | <b>1</b> |
| <b>15</b> | <b>Which binary file mode opens an existing file for reading and writing without truncating it?</b><br>(A). rb+<br>(B). wb                                              | <b>1</b> |

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|    | (C). ab<br>(D). w                                                                                                                                                                                              |   |
| 16 | <b>What is the output?</b><br><pre>def f(x, y=3):     return x * y print(f(4, 2))</pre> (A). 6<br>(B). 8<br>(C). 12<br>(D). Error                                                                              | 1 |
| 17 | <b>State True or False:</b><br><br>Strings in Python are immutable.                                                                                                                                            | 1 |
| 18 | <b>What is displayed?</b><br><pre>try:     x = 10 / 2 except ZeroDivisionError:     print("Zero") else:     print(x)</pre> (A). Zero<br>(B). 5.0<br>(C). 5<br>(D). No output                                   | 1 |
| 19 | <b>A CSV row read using csv.reader() is normally returned as:</b><br>(A). A dictionary<br>(B). A list of strings<br>(C). A tuple of integers<br>(D). A single string                                           | 1 |
| 20 | <b>Assertion (A):</b> " data ".strip() returns "data".<br><b>Reason (R):</b> strip() removes leading and trailing whitespace by default.<br>(A). Both A and R are true, and R is the correct explanation of A. | 1 |

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|           | <p>(B). Both A and R are true, but R is not the correct explanation of A.</p> <p>(C). A is false, but R is true.</p> <p>(D). A is true, but R is false.</p>                                                                                                                                                                                                                        |          |
| <b>21</b> | <p><b>Assertion (A):</b> random.randint(2, 5) can return 5.</p> <p><b>Reason (R):</b> randint(a, b) includes both endpoints a and b.</p> <p>(A). Both A and R are true, and R is the correct explanation of A.</p> <p>(B). Both A and R are true, but R is not the correct explanation of A.</p> <p>(C). A is false, but R is true.</p> <p>(D). A is true, but R is false.</p>     | <b>1</b> |
|           | <b>SECTION B</b>                                                                                                                                                                                                                                                                                                                                                                   |          |
| <b>22</b> | <p>A CSV file attendance.csv already contains records. New attendance records must be added without deleting the existing records.</p> <p>(a) Which file opening mode should be used?</p> <p>(b) Which csv.writer() method should be used to write one new record stored as a list?</p>                                                                                            | <b>2</b> |
| <b>23</b> | <p>Rewrite the following code after removing the errors. The corrected code should display all numbers from 10 to N (inclusive) that are divisible by 5.</p> <pre>N = int(input("Enter N: ")) for x in range(10, N)     if x % 5 = 0:         print(x)</pre>                                                                                                                       | <b>2</b> |
| <b>24</b> | <p>(A) Write a function count_even(L) that accepts a list of integers and returns the number of even values in the list. Call it for L = [7, 12, 18, 5, 21, 24] and print the returned value.</p> <p style="text-align: center;"><b>OR</b></p> <p>(B) Write a function Show_Long(W) that accepts a list of words and displays only those words whose length is greater than 5.</p> | <b>2</b> |

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| 25 | <p>(A). What is the purpose of the tell() method in file handling? Give one example of a value it may return.</p> <p style="text-align: center;"><b>OR</b></p> <p>(B). Distinguish between append mode 'a' and write mode 'w' with respect to existing file contents.</p>                                                                                                                                                     | 2 |
| 26 | <p>(A). Write a program to open "notes.txt", read the first 15 characters, display the current file-pointer position, move the pointer back to the beginning, and then display the first line.</p> <p style="text-align: center;"><b>OR</b></p> <p>(B) Write a function count_at_lines() that reads "messages.txt", displays every line whose first non-whitespace character is '@', and prints the number of such lines.</p> | 2 |
| 27 | <p>Which of the following possible outputs will NOT be produced? Also state how many times the loop executes.</p> <pre>import random L = [2, 4, 6, 8, 10, 12] for i in range(3):     j = random.randrange(i, 6)     print(L[j], end=":")</pre> <p>(A). 4:6:8:<br/>         (B). 12:4:6:<br/>         (C). 8:10:12:<br/>         (D). 10:2:8:</p>                                                                              | 2 |
| 28 | <p>Write a Python program that accepts a string and displays a new string in which every digit is replaced by '*', while all other characters remain unchanged.</p>                                                                                                                                                                                                                                                           | 2 |

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|    | <b>Example:</b><br><b>Input:</b> Room42-A<br><b>Output:</b> Room**-A                                                                                                                                                                                                                                                                                                                                                                       |   |
|    | <b>SECTION C</b>                                                                                                                                                                                                                                                                                                                                                                                                                           |   |
| 29 | <b>Write a Python program to read "report.txt" and:</b><br><br>(a) count and display the number of uppercase alphabetic characters;<br>(b) count and display the number of words ending with a vowel (case-insensitive). Assume that the words contain alphabetic characters only.<br>(c) display "EMPTY FILE" if the file contains no characters; otherwise display "DATA FOUND".                                                         | 3 |
| 30 | <b>Fill in the blanks:</b><br>(i) The file method that returns the current file-pointer position is _____.<br>(ii) The pickle function used to write an object to a binary file is _____.<br>(iii) The CSV function used to create a reader object is _____.                                                                                                                                                                               | 3 |
| 31 | (A) A list Prices contains product prices. Write a program to create a new list DISCOUNTED containing 90% of each price greater than ₹1000 and the original price for all other items. Display both lists.<br><br><p style="text-align: center;"><b>OR</b></p> (B) Given dictionaries A and B with numeric values, create dictionary C containing keys present in both A and B. For every common key k, store A[k] - B[k] in C. Display C. | 3 |
|    | <b>SECTION D</b>                                                                                                                                                                                                                                                                                                                                                                                                                           |   |
| 32 | A list RECORDS contains entries in the form:<br><b>[Name, Course, Score]</b><br>A stack QUALIFIED is implemented using a Python list.<br>(a) Write Push(QUALIFIED, RECORDS) to push the complete record of every student whose Score is at least 70 and Course is "CS".<br>(b) Write Display(QUALIFIED) to display all records from top to bottom without removing them.                                                                   | 4 |

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| 33 | <p><b>(A) State True/False:</b></p> <p>(i) list.pop() without an index removes the last element.</p> <p>(ii) A tuple can be modified using append().</p> <p>(iii) dict.get(key, default) can return default when key is absent.</p> <p>(iv) "abc".upper() returns "ABC".</p> <p style="text-align: center;"><b>OR</b></p> <p><b>(B) Answer the following:</b></p> <p>(i) What is len([10, 20, 30, 40])?</p> <p>(ii) Which list method inserts an element at a specified position?</p> <p>(iii) Which string method checks whether all characters are digits?</p> <p>(iv) Which dictionary method removes all items?</p> | 4 |
| 34 | <p>A CSV file marks.csv contains:</p> <p><b>RollNo, Name, Marks</b></p> <p>Write a program that reads all records, converts Marks to integer, adds a column Grade with:</p> <p>"A" for Marks <math>\geq 80</math>, "B" for Marks <math>\geq 60</math> but <math>&lt; 80</math>, "C" otherwise,</p> <p>and writes the modified records to graded_marks.csv with headers RollNo, Name, Marks, Grade.</p>                                                                                                                                                                                                                  | 4 |
| 35 | <p>Write a Python program to accept two integers A and B and divide A by B using exception handling:</p> <p>(a) handle ValueError for invalid integer input;</p> <p>(b) handle ZeroDivisionError when B is zero;</p> <p>(c) if no exception occurs, display the quotient;</p> <p>(d) use finally to display "Execution Finished" in all cases.</p>                                                                                                                                                                                                                                                                      | 4 |
|    | <b>SECTION E</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |   |
| 36 | (A) A stack Parcel stores records as:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 5 |

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|           | <p><b>[ParcelID, Destination, Weight]</b></p> <p>Maximum capacity is 100 records.</p> <p>(i) Write <b>Push(Parcel, rec)</b> to push rec if the stack contains fewer than 100 records; otherwise display "PARCEL OVERFLOW".</p> <p>(ii) Write <b>Pop(Parcel)</b> to remove and display the topmost record; if empty, display "PARCEL UNDERFLOW".</p> <p style="text-align: center;"><b>OR</b></p> <p>(B) A list BOOKS contains records:<br/><b>[BookID, Title, Category, Price]</b></p> <p>Write functions for a stack OFFER:</p> <p>(i) <b>Push(OFFER, BOOKS):</b> push complete records whose Category is "Python" and Price is less than 600.</p> <p>(ii) <b>Display(OFFER):</b> display all records from top to bottom without modifying the stack.</p>                                                                                                                                  |          |
| <b>37</b> | <p>(A) A binary file "library.dat" stores book records as dictionaries:<br/><b>{"BookID": 201, "Title": "Data Science", "Author": "Riya", "Issued": False}</b></p> <p>Each record is stored separately using pickle.dump().</p> <p>(i) Write <b>Add_Book()</b> to accept BookID, Title, Author and Issued from the user, create the dictionary and append it to library.dat.</p> <p>(ii) Write <b>Display_Available()</b> to read all records and display BookID and Title of books whose Issued value is False.</p> <p style="text-align: center;"><b>OR</b></p> <p>(B) A CSV file "orders.csv" stores:<br/><b>OrderID, Customer, City, Amount</b></p> <p>(i) Write <b>Add_Order()</b> to accept one record from the user and append it to orders.csv.</p> <p>(ii) Write <b>Display_City()</b> to accept a city and display OrderID and Amount for all records belonging to that city.</p> | <b>5</b> |