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AUTUMN HOLIDAY HOMEWORK (2026-27)

CLASS: 11 B | SUBJECT: INFORMATICS PRACTICES

> **AUTUMN BREAK ASSIGNMENTS & INSTRUCTIONS:**
>
> - Revise a Chapter (1 unit and Flow of Control, List, Python Introduction) with MCQ and Example Programs.
> - Complete your lab record : total (program 18).
> - Students complete your Fair note up to Introduction of MySQL chapter.
> - Study well for October monthly test.

PRACTICE QUESTION PAPER (OCTOBER MONTHLY TEST PREPARATION)

Topics: Python Lists & Dictionaries :

SECTION A: 3-MARK QUESTIONS (MODERATE LEVEL)

Q1. Consider the following list of integers:
scores = [78, 65, 89, 45, 92, 56, 80]
Write Python statements using appropriate built-in list functions to:
(a) Find and display the highest and lowest scores using max() and min().
(b) Calculate and display the total sum of all scores using sum().
(c) Find and display the total number of elements present in the list using len(). **[3 Marks]**

Q2. Carefully observe the following Python code snippet and write its exact output: **[3 Marks]**

```
fruits = ['Apple', 'Banana', 'Mango', 'Apple', 'Orange']
fruits.append('Guava')
fruits.insert(2, 'Grapes')
fruits.remove('Apple')
x = fruits.pop()
print(fruits)
print('Popped element:', x)
```

Q3. Given the following dictionary containing names of items and their prices:
grocery = {'Sugar': 45, 'Rice': 60, 'Wheat': 38, 'Oil': 140}
Write Python code to perform the following:
(a) Print all the item names (keys) using keys().
(b) Update the price of 'Wheat' to 42 using the update() method.
(c) Delete the key 'Sugar' from the dictionary using the del statement. **[3 Marks]**

SECTION B: 5-MARK QUESTIONS (PROGRAMS)

Q4. Write a simple Python program to perform the following tasks on a list:
(a) Accept 6 integers from the user and store them in a list named num_list using a loop and append().
(b) Display the list elements in ascending order using sort().
(c) Reverse the elements of the list and display the reversed list using reverse().
(d) Input a number from the user and display its index position in the list using index(). (Assume the number

exists in the list).
(e) Display the total count of an element entered by the user using count(). **[5 Marks]**

Q5. Write a Python program to maintain employee records in a dictionary where the employee name is the key and basic salary is the value.
The program should perform the following:
(a) Store details of 4 employees entered by the user.
(b) Traverse the dictionary using the items() method and print each employee name and their salary formatted as:
Employee: <name> | Salary: <salary>
(c) Find and print the maximum salary among all employees using max() and values().
(d) Check if an employee named 'Ramesh' exists in the dictionary. If present, delete his record; otherwise, print 'Record Not Found'. **[5 Marks]**

SECTION C: CASE-BASED QUESTIONS (MODERATE LEVEL)

Q6 [Case-Based]. Case Study 1: School Library Book Management
The school librarian stores the titles of reference books in a list:
books = ['Python Basics', 'Data Analysis', 'Web Tech', 'Computer Networks']

Answer the following sub-questions based on the above scenario:
(a) Write the Python statement to add a new title 'Cyber Security' to the end of the list.
(b) Write the Python statement to insert 'Informatics Practices' at index position 1.
(c) Write code to traverse and display each book title from the list on a new line along with its index position. **[3 Marks]**

Q7 [Case-Based]. Case Study 2: Sports Day House Points Tally
During the school sports day, the total points scored by four houses are stored in a dictionary:
house_points = {'Red': 120, 'Blue': 145, 'Green': 130, 'Yellow': 110}

Write Python statements or code segments to answer the following requirements:
(i) Print the total score achieved across all houses combined using sum() and values().
(ii) Write the code to determine and print the highest points scored among the houses using max().
(iii) The Green house won a bonus event of 15 points. Write the statement to update Green's score to 145.
(iv) A new house named 'Orange' participated with initial points 50. Add this house to the dictionary using update().
(v) Clear all records from the dictionary using the clear() method at the end of the academic year. **[5 Marks]**