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| Unique Paper Code | : | **62347501** |
| Name of the Course | : | **B.A. Programme (Computer Applications)** |
| Name of the Paper | : | **Visual Programming** |
| Semester | : | **V** |
| Duration | : | **3 Hours** |
| Maximum Marks | : | **75** |
| Year of Admission | : | **2015 - 2018** |

**Instructions for Candidates**

All questions carry equal marks. Attempt any **FOUR** questions.

Q. 1) Consider the following scenario: Based on *Order_Number, Item_Name, Seller* and *Quantity*, a company calculates *Advance_Payment* using the given criteria:

| Quantity | Advance_Payment |
|---|---|
| < 4000 | 10000 |
| >= 4000 and < 6000 | 14000 |
| >= 6000 and < 12000 | 20000 |
| >= 12000 and < 20000 | 28000 |
| >= 20000 and < 30000 | 31000 |
| >= 30000 and < 40000 | 36000 |
| >= 40000 | 40000 |

Write steps to design a form for above scenario. Write VB code to calculate *Advance_Payment* and display the calculated *Advance_Payment* in a Label as follows:

(*Seller*) should be made (*Advance_Payment*) in lieu of (*Order_Number*)

*Seller, Advance_Payment* and *Order_Number* are variables used to display values.

Q. 2)   Consider two Single-Dimensional arrays: *arr1* and *arr2*. Array *arr1* is of dimension 10 and of datatype Integer. Array *arr2* is of dimension 15 and of datatype Single. Write VB code to initialize *arr1* with each element containing the product of its index with 10. Write VB code to initialize *arr2* with each element containing the quotient of division of its index with 7. Write VB code to calculate and display the product of values stored in the *arr1*. Write VB code to print the squares of number stored in array *arr2*. What will be the output of VB functions: Left(str,6) where *str* is "Worldwide Pandemic"; FormatCurrency(sal) where *sal* is 459.1?

Q. 3)   Write the steps to design a form that collects following details of a student: *Name, Roll Number, Class, Section, Date of Birth, Address, Hobbies*. The form must include a Label, a Text Box and a set of Check Boxes. Write steps to set the Tab order of Controls present in this form. Also, explain how to set the focus to the second Control in this form. List the default property of the Controls used in above form. Write VB statements that will: Clear the contents of Text Box and Label inserted in the above form; Grays a Check Box out of those inserted in the above form.

Q. 4)   Consider a List Box *lst1* containing the five names: Ram, Shyam, Mohan, Hari and Ravi. Write VB statements that will implement the following tasks on List Box *lst1*: Select the fifth item; Remove first element; Display second element; Compute the number of elements present. Also, show the content of List Box *lst1* after the execution of above statements. Consider the following scenario: A statement has to be repeated *n* times. Which looping structure in VB is suitable in this case and why? In case, the loop has to be run till a specific condition is met, which loop in VB should be used here and why? How many times will the following loops "For intCounter = 2 To 20 Step 3" and "For intCounter = 24 To 2 Step -5" be executed?

**Q. 5)** Consider a VB project *Demo* containing Form *frm1*. The Form *frm1* contains Command Button *cmd1*. Write the steps to add a new Form *frm2* to this project. Also, write the steps to add an existing Form *frm3*, containing Command Button *cmd2*, stored in an existing VB project *Test*. For Command Button *cmd1* on Form *frm1*, write VB code that allows it to conceals the Form *frm1* and displays the Form *frm3*. For Command Button *cmd2* on Form *frm3*, write VB code that inputs a number from user and displays Form *frm1* or *frm2* based on whether input is 1 or 2 respectively (All other values result in display of error message). Consider the following VB code:

Private Sub Check (Place As Integer)

   Place = 5

End Sub

How can it be ensured that the change does not reflect outside? Write steps to create a Breakpoint at Place = 5 statement. Extend the function *Check* to input a string and display its length and its five characters from position third.

**Q. 6)** For each of the following VB variables, describe the scope and data type of these: *mintchange, gdblrate, strname* and *lngweight*. Deduce the datatype required for following data: *Salary of a Person, Teacher ID Number, Expiry Date of Item, Address of an Office*. Suggest names of VB variables to store the above given data. Write VB statements to input a floating number from user and display in a label with only two digits after decimal. Evaluate the following VB expressions:

$4 + 6 * 5 * 4 / 8 - (3 + 4)$ and $8 - 9 / (5 - 2) * (7 - 4)$.