



**EN-3741**  
**Second Year B. C. A. (Sem. III) Examination**  
**November / December - 2016**  
**306 - Practicals**

Time : 5 Hours]

[Total Marks : 140

**Instructions :**

(1)

<p>नीचे दशांश  निशानीवाजी विगतो उत्तरपत्री पर अवश्य लपनी. Fillup strictly the details of  signs on your answer book.</p> <p>Name of the Examination : <input type="text" value="SECONDYEAR B. C. A. (SEM. 3)"/></p> <p>Name of the Subject : <input type="text" value="306 - PRACTICALS"/></p> <p>Subject Code No. : <input type="text" value="3"/> <input type="text" value="7"/> <input type="text" value="4"/> <input type="text" value="1"/> Section No. (1, 2, ...) <input type="text" value="NIL"/></p>	<p>Seat No. : <input type="text"/><input type="text"/><input type="text"/><input type="text"/><input type="text"/><input type="text"/><input type="text"/><input type="text"/><input type="text"/><input type="text"/></p> <p style="text-align: center;">Student's Signature</p>
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(2) Figures on the right indicate marks.

- 1 Write a program to perform the following operations on 40  
Doubly circular linked list :
  - (i) Add a node at end
  - (ii) Delete a node at particular location
  - (iii) Sort the nodes in ascending order
  - (iv) Display the list
  
- 2 Create a class 'vehicle' which contains data members 40  
Registration Number and fuel type. Make getdata() function to input data value. Create a class 'Four wheeler' from 'vehicle' which contains data members distance and mileage. Create getdata() function for accept values, use overriding technique for getdata() function and display information with fuel used.

- 3** Department (DepartmentId, DepartmentName) **40**  
Employee (EmployeeId, Fname, Mname, Lname, Designation, DOB, DOJ, Salary) EmployeeDept(EmployeeDeptId, EmployeeId, Fname, Mname, Lname, DOB, DOJ, Salary, Designation, DepartmentID, DepartmentName)
- (1) Write a program using PL/SQL that
- (1) Fetches a department from the Department table.
  - (2) For each such department, fetches employee information belonging to that department from the employees table.
  - (3) Then insert all this information into EmployeesDept table.
- (2) Write a procedure to display top 3 highest salary gaining employee name.
- 4** Viva and Journal. **20**
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(2) Figure on the right indicate marks.

- 1 Write a program to perform the following operations 40  
on Doubly circular linked list :
  - (1) Add a node after a specific node
  - (2) Delete a node from specific location
  - (3) Delete a node after a given node
  - (4) Search a value from the nodes
  
- 2 Write a program to create a class shape with functions to 40  
find area of and display the name of the shape and other essential component of the class. Create derived classes circle, rectangle and trapezoid each having overridden functions area and display. Write a suitable program to illustrate virtual functions.

- 3 Branch (BranchId, BranchName, Pincode) 40  
Employee (EmployeeId, Fname,Lname,DOJ,BranchId)  
Create a function to perform :
- (1) Accept the branch number and calculate the number of employees in that branch and finally return the number of employees.
- Create a procedure to perform :
- (1) Accept the branch number
  - (2) Using the function created will get the employee count for the branch number accepted
  - (3) Based on the employee count a decision will be taken to delete the employees belonging to that branch followed by deleting the branch.
  - (4) If the employee count is less than 2 then
    - All employees who belonging to that branch are deleted and that branch having less than 2 employees is also deleted.
- 4 Viva and Journal 20
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