4.

#### NEW

## Part-III 3-Tier 2015

## COMPUTER SCIENCE

PAPER-VIIIA (SET-1)

(Honours)

(PRACTICAL)

Full Marks: 50

Time: 3 Hours

The figures in the right-hand margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

## **Group—A**

Answer any one question:

20

1. Consider the following database:

EMPLOYEE (emp\_no, name, skill, pay\_rate) POSITION (posting\_no, skill) DUTY\_ALLOCATION (posting\_no, emp\_no, day, shift)

- (a) Find the shift details for employee 'ABC'
- (b) Get employees whose rate of pay is less than or equal to the rate of pay of employee 'ABC'.

- (c) Get duty allocation details for employee 'ABC' for the month Jan 2015.
- (d) Print all pairs of posting\_nos, requiring the same skill.
- (e) Find the names of the employees having same skill, and work in same shift.

## 2. Consider the following database:

Project (project\_id. project\_name. chiet\_arch)
Employee (Emp\_id. Emp\_name)
Assigned\_To (Project\_id, Emp\_id)

- (a) Get employee, name of employees who work on Project e 4.
- (b) Get employee, numbers of employees who do not work on all projects.
- (c) Get employee, number of employees who do not work on those Projects that employee 107 works on.
- (d) Get details of the employees working on both e\_3 and e\_4.
- (e) Obtain details of employees working on database Project. 4×5

## 3. Consider the following database:

Supplier (Sno, Sname, Status, City)

Parts (Pno, Pname, color, weight, city)

Project (Jno. Jname, city)

SPj (Sno, Pno, Jno, Qty)

- (a) Get Pno values for Parts supplied to all Projects in 'London'.
- (b) Change the color of the red part having the lowest weight to orange.

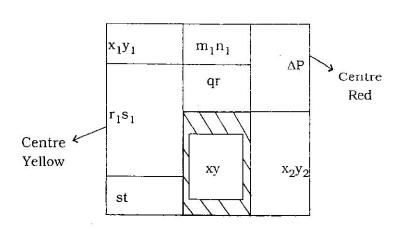
# Group-C

10						
•	Answer any <i>one</i> question: 10					
<sup>rele</sup> 9.	<ul> <li>Write a HTML code for the Calender of April 2011 with indicating holidays and Sundays are red color and Saturdays are green colors.</li> </ul>					
10.	10. Write a HTML code for creating the login page.					
11. Design a web page which contain the following:						
Name						
Gender : O Male O Female						
	Select Qualific	ation :	B.Sc.	☐ M.Sc.		
m]			M.C.A.	B.C.A.		
ring	Academic Qualifica	<u>ition :</u>				
ling	Exam Passed	Board / University	Year of Passing	Percentage		
¥						
	Submit		Reset			

12. Write a HTML code which divide the window vertically 4 times using frameset and create the following figure:

Apple	Apple	Mango	Banana
Hyper- linked Mango	6 1		-
Page	2 1 1		
<u>Banana</u>			

13. Write a HTML code for the following table:

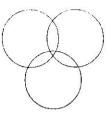


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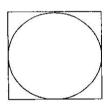
## Group-B

## Answer any one question:

Design the following diagram using Bresenham of drawing algorithm:

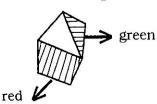


6. Design the following diagram:



Design the circle using any circle drawing algorithm

- Assume an ellipse using midpoint eillipse drav algorithm.
- **8.** Fill the region shows in following diagram using any fill algorithm by red color and green color:



- (c) Get Sno values for suppliers who supply Project is J1.
- (d) Get Jnames for those Projects which are supplied by supplier xvz.
- (e) Get supplier names, sno, city, starting with name 'a' or 's'.

  4×5
- 4. Consider the following database :

ENROLL (S#, C#, Section)

TEACH (Prof. C#, Section)

ADVICE (Prof. S#)

7

PRE-REQ (C#, Pre\_C#)

GRADE (S#, C#, grade, year)

STUDENT (S#, Sname)

- (a) List of students taking courses with Rahul or Bimal.
- (b) List all students taking atleast one course that their advisor teaches.
- (c) List those Professors who teach more than one section of the same course.
- (d) List all student number and course number.
- (e) List the student number and course number who got grade A.

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Answer two questions taking one from each Group.

#### Group-A

(Marks: 20)

1. Write an assembly language Program to find the squareroot of a given number.

2. Write an assembly language program for finding out the following arithmetic operation:

#### Add 14H and 9H

- **3.** Write an assembly language program to generate first 10 non-Fibonacci number.
- **4.** Write an ALP to find the sum of series of 8 bit numbers, sum may be 16 bits.
- **5.** Write an assembly program to find 2's complement of an 8 bit number.
- **6.** Write an ALP to convert an 8 bit Hex number to decimal number.
- **7.** Write an ALP to calculate the sum of a series of 8 bit numbers.
- **8.** Write an assembly language program to find the second highest number from a set of data.

9. Write an ALP to store a number in some memory location. If the number is add then store 01H in some other location and if the number is even then store 00H in that location.

#### Group-B

(Marks : 20)

1. Write a program for 8085  $\mu p$  using 8255 IC interfacing to display a following word and 7 segment display:

#### ATTITUDE

- 2. Design and implement an I/O interfacing circuit which display 0 to 9 using seven segment display. Each number is displayed after 5 sec.
- **3.** Write a program to generate a square wave using 8255. Use CRO to show the wave.
- 4. Design a digital clock using 8085  $\mu p$  and 8L55 IC.

**5.** Write a program to scroll the letter "Z" through four 7 segment display.

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