

2017
MCA
5th Semester Examination
ARTIFICIAL INTELLIGENCE LAB.

PAPER—MCA 507

Subject Code—32

(Practical)

Full Marks : 100

Time : 3 Hours

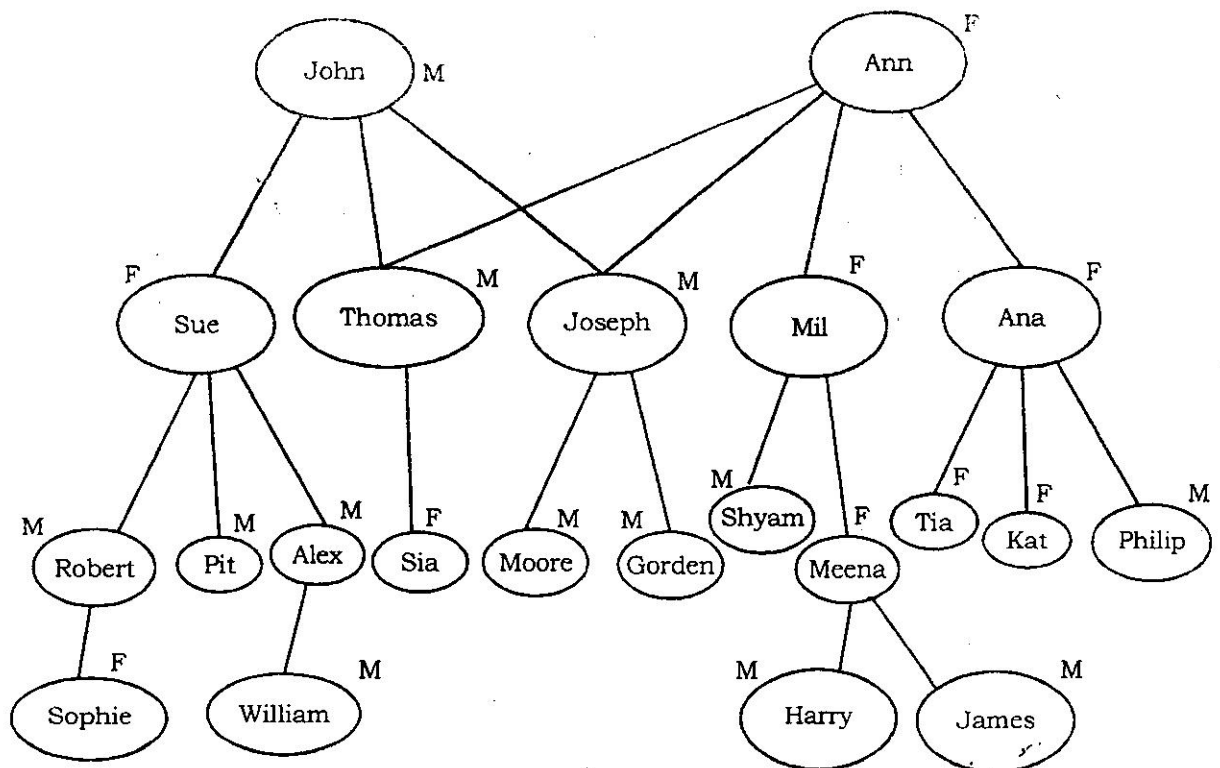
The figures in the right hand margin indicate full marks.

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

Illustrate the answers wherever necessary.

Answer any one question (on lottery basis).

Consider the following family tree —



Here 'M' and 'F' stands for male and female respectively.

Derive the following relations using PROLOG —

1. Sister, Nephew, Niece.
2. Granddaughter, brother, aunty.
3. Nephew, cousin, grandparent.
4. Sister, aunty, brother.
5. Brother, niece, aunty.
6. Grandparent, cousin, mother.
7. Brother, sister, uncle.
8. Grandchildren, uncle, sister.
9. Grandparent, cousin, brother.
10. Nephew, cousin, aunty.
11. Write a PROLOG Program to find the factorial of N.
12. Write a PROLOG Program to find out the sum of N natural numbers.
13. Write a PROLOG Program to check whether a number is prime or not.
14. Write a PROLOG Program to reverse a list.
15. Write a PROLOG Program to concatenate two lists into one.
16. Write a PROLOG Program to add an element at the end of the list.
17. Write a PROLOG Program to count the number of elements in a list.
18. Write a PROLOG Program to sum up of the numbers in a list.
19. Write a PROLOG Program to find out GCD of two numbers.
20. Write a PROLOG Program to implement insertion sort.

Viva-Voce — 10 Marks
