

Total Pages—03

PG/2nd Sem/COS-296(M1)/24

2 0 2 4

M.Sc. 2nd Semester Examination

Computer Science

PAPER : COS-296(M1)

(Artificial Intelligence Lab)

(Practical)

Full Marks : 25

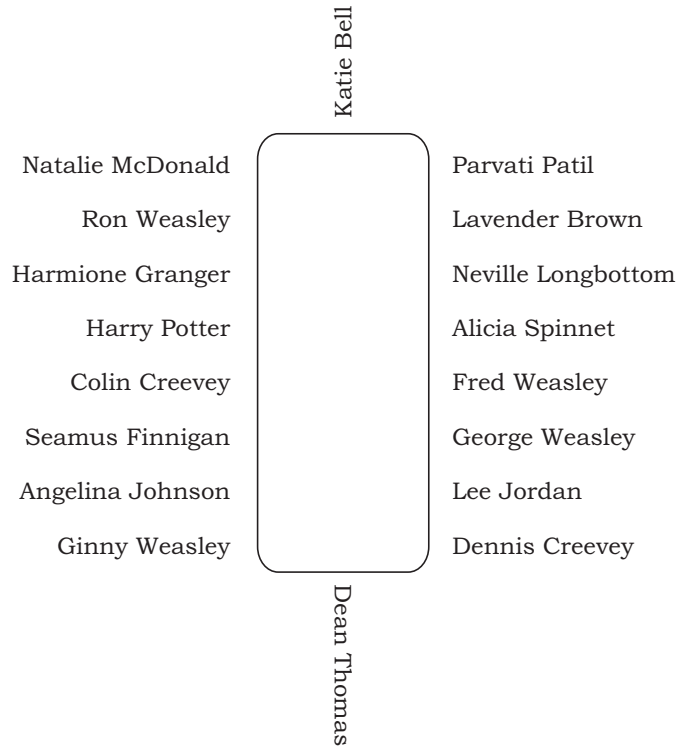
Time : 2 hours

The figures in the right-hand margin indicate marks.

The following picture shows who is sitting at the Gryffindor table. Define the functor `sits_right_of/2` to

(2)

represent who is sitting right of whom. `sits_right_of(X, Y)` should be true if X is to the right of Y :



Based on this knowledge base, formulate the rules defining the following predicates :

`sits_left_of/2` : `sits_left_of(X, Y)` should be true if X is to the left of Y.

`are_neighbors_of/3` : `are_neighbors_of(X, Y, Z)` should be true if X is to the left of Z and Y is to the right of Z.

/996

(Continued)

(3)

`next_to_each_other/2` : `next_to_each_other(X, Y)` should be true if X is next to Y.

1. Considering the above problem, answer *any two* questions : 5×2=10

- (a) Who is sitting two seats to the right of Harry Potter?
- (b) Is Lavender to the right of Weasley?
- (c) Is Lavender to the right of Parvati?
- (d) Who is sitting between Johnson and Creevey?

2. Answer any *one* question : 10

- (a) Write a prolog program to find the maximum number in a list.
- (b) Write a prolog program to find the number of elements in a list.
- (c) Write a prolog program to find the reverse of a list.
- (d) Write a program to find the minimum of a list.
- (e) Write a program to find the sum of all elements in a list.

Viva : 05

★ ★ ★

PG/2nd Sem/COS-296(M1)/24

BL24/5(121)—75