



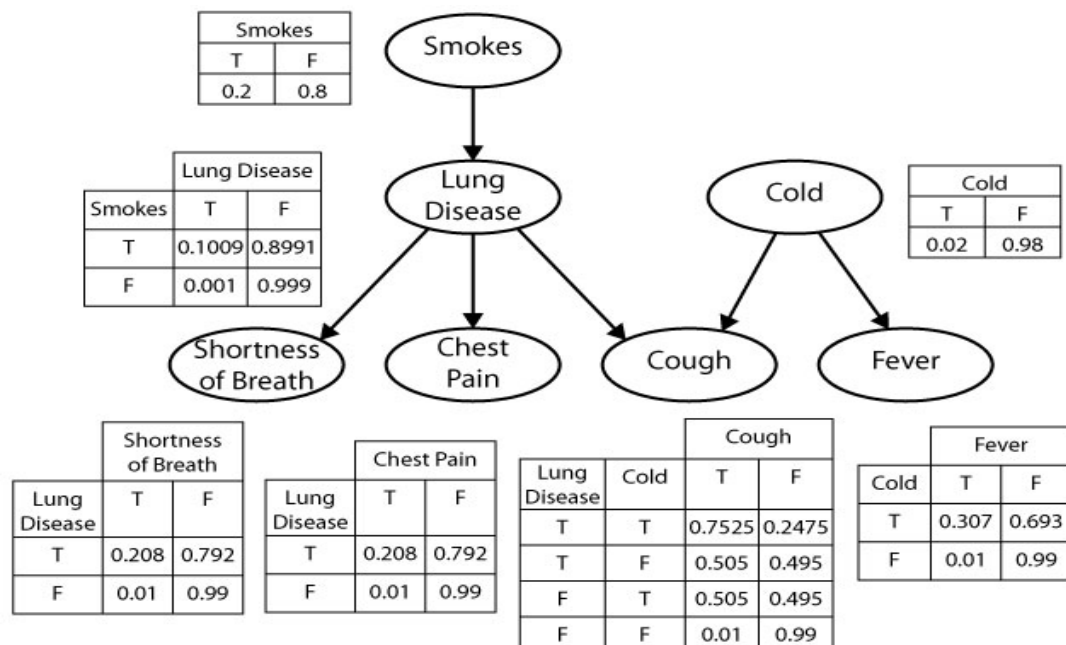
DHARMSINH DESAI UNIVERSITY, NADIAD
FACULTY OF TECHNOLOGY
B.TECH. SEMESTER VII [IT]
SUBJECT: (IT714) KNOWLEDGE SYSTEMS

Examination : Third Sessional **Seat No. : _____**
Date : 16/10/2021 **Day : Saturday**
Time : 12:30 to 1:15 **Max. Marks : 16**

INSTRUCTIONS:

1. Figures to the right indicate maximum marks for that question.
2. The symbols used carry their usual meanings.
3. Assume suitable data, if required & mention them clearly.
4. Draw neat sketches wherever necessary.

- Q.2** Attempt **Any Two** from the following questions. **[08]**
- (a) Let, $A = 0.5/1 + 0.4/2 + 0.6/4 + 0.8/5$ and $B = 0.7/2 + 0.6/5 + 0.2/6 + 0.1/7$ **[4]**
For given fuzzy sets, Calculate $A \times B$ and $A \bullet B$
- (b) Summarize the level of NLP. Explain the work done at each level by a simple example. **[4]**
- (c) Find the probability of Chest Pain using following Bayesian network. **[4]**



- Q.3** (a) Design the scenes for a situation “Play at a theater”. Apply the concept of script representation and draw a neat and clean representation. Define all scenes and variable clearly. **[6]**
- (b) Design a prolog code to display a last element of the list. **[2]**

OR

- Q.3** (a) Design a dynamic database in Prolog which stores facts of student(name, branch, semester, percentage) in FIFO format. **[6]**
The code should be able to perform following requirements :
- 1) Enter a new student in the database
 - 2) Delete a specific student from the database.
 - 3) Display specific student details from the database.
- (b) Sketch conceptual dependency representations for the following sentences . **[2]**
1. Bill drank his coke.