

# Artificial Intelligence

## Assignment # 04

Spring 2012

Marks: [10+20=30]

### Due Date

Your assignment must be uploaded before or on **26<sup>th</sup> June, 2012.**

### Uploading instructions:

- **Upload your assignment as a word file. It should have name [YourRollNo.doc]**

### Rules for Marking:

It should be clear that your assignment will not get any credit if:

- The assignment is submitted after due date.
- The submitted assignment file is corrupted.
- The assignment is copied.

### Note:

Your answer must follow the below given specifications. **You will be assigned zero marks if you do not follow these instructions.**

- Font style: "Times New Roman"
- Font color: "Black"
- Font size: "12"
- **Bold** for heading only.
- Font in *Italic* is not allowed at all.
- No formatting or bullets are allowed to use.

### **Assignment:**

Mr. Yousaf Ali Khan, Mr. Hamza and Mr. Khurram own an aero-plane engine manufacturing factory in Texila, Pakistan. They have been developing spare parts and complete aero-plane engines. They have decided to develop Fault Diagnosis System in case either they do not found already developed computer expert system or not found to required number of human experts to identify the faults in aero-plane engines or if Fault Diagnosis System is costly or not has full and final documentation then new expert system must be developed.

In case of development of their own Fault Diagnosis Expert System, this system contains the knowledge of many experts and provides permanent documentation of the decision process. Even if this system provides the training of new human experts will be easy through the use of this system. If this system will help in a way that production will be faster with less chance of errors in the finished products and system can be available 24 hours a day 365 days a year. Then all owner of the factory will be very happy and satisfied by that expert system.

Express the statements in the form of facts and rules using IF, THEN format and compound statements.