M.Tech. IN ADVANCED INFORMATION TECHNOLOGY – INTELLIGENT SYSTEMS AND ROBOTICS (MTECHSR)

Term-End Examination

00024

December, 2014

MINI-046 : INTELLIGENT SYSTEM DESIGN

Time : 3 hours   *Maximum Marks : 100*

Note :

(i)   Section I is compulsory.

(ii)   In Section II, attempt any five questions.

(iii) Assume suitable data wherever required.

(iv)   Draw suitable sketches wherever required.

(v)   Italicized figures to the right indicate maximum marks.

SECTION I

1. Explain the architecture of Expert System. Explain with a block diagram expert system for a Medical Diagnostics system.   *15+15*

SECTION II

2. Explain what is cognition. How does it help in decision-making ?　　　7+7

3. Explain knowledge representation. Explain with an example what is the importance of knowledge representation in an intelligent system.　　　7+7

4. Explain the differences between fuzzy and crisp systems.　　　*14*

5. What are the shortcomings of artificial intelligence? Explain with respect to current available technology.　　　7+7

6. Explain the implementation details of any one algorithm to design an intelligent system.　　　*14*

7. Explain the difference between cognition and computation.　　　*14*

8. In a paint manufacturing company, four base colours in addition to white base are used to produce any given colour. Explain how can an intelligent system be used to improve the consistent inflow of raw material and outgoing product when the colours to be generated are preplanned and many different colours are to be generated.　　　*14*

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