

N.B:

1. Attempt any three questions from each section
2. Answers to the two sections must be written in same answer sheet.
3. Figures to the right indicate full marks.
4. Assume additional data if necessary but state the same clearly.
5. Symbols have their usual meanings and tables have their usual standard design unless stated otherwise.
6. Use of Simple calculators and statistical tables is allowed.

Section I

1	A	Explain briefly neural network and its importance in AI	6
	B	What are Atoms and Lists in Lisp?	6
2	A	Explain Knowledge Discovery Process.	6
	B	Explain Isa-Hierarchy.	6
3	A	What is fuzzy logic? Explain with example.	6
	B	What are applications of Genetic Algorithm?	6
4	A	I read a book (b) He likes novels (c) She reads fictions - convert into predicates.	6
	B	Explain Pulse –Coded Signal functions.	6
5	A	What is AI? Explain the components of AI with suitable block diagram	6
	B	Explain two-armed and K-armed Bandit Problem.	6

Section II

6	A	What are the Components of Image Processing?	6
	B	Short note on (a)DFT. (b) Walsh transform.	7
7	A	Explain Spatial Filtering in detail.	6
	B	What do you mean by frequency domain filter? Explain Homomorphic filtering.	7
8	A	What do you mean by Morphological Image Processing? Explain Hit-or-Miss transformation.	6
	B	Explain (a) Subband coding. (b) Haar transform	7
9	A	Differentiate between Error free compression and Lossy compression.	6
	B	Explain Edge linking and Boundary detection.	7
10	A	Write short note on Image Sampling and Quantization.	6
	B	What is Boundary descriptors, Regional descriptors?	7