## M.Sc. (MATHEMATICS WITH APPLICATIONS IN COMPUTER SCIENCE)

## **Term-End Examination**

## December, 2011

MMTE-003 (P) : PATTERN RECOGNITION AND IMAGE PROCESSING (P)

Time: 1½ hours Maximum Marks: 40

**Note:** The question paper is of **30** marks. Remaining **10** marks are for viva-voce.

1. Load an image and restore this using

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- (i) Wiener filter
- (ii) Median filter
- Load an image and carry out edge detection in both directions using.
  - (i) Sobel operator
  - (ii) Roberts operator

Do not use in built commands. Use the corresponding marks and then carry out edge - detection .