

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

M.Sc. (MACS)

00348

Term-End Practical Examination

June, 2017

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

Time : $1\frac{1}{2}$ hours

Maximum Marks : 40

Note : (i) *This question paper has two questions worth 30 marks. Remaining 10 marks are for viva-voce.*

(ii) *Use Sci-lab and do not use inbuilt programs.*

1. Perform the following tasks for any digital image : 14
- (a) Read and display the image.
 - (b) Resize the given image.
 - (c) Convert colour image into gray scale image.
 - (d) Convert colour/gray scale image into black and white image.
 - (e) Draw image profile.
 - (f) Separate colour image in three R, G and B planes.
 - (g) Create colour image using R, G and B (three separate planes).
2. Write a program to perform the following operations on images : 16
- (a) Calculate intersection of two images.
 - (b) Watermarking using EX-OR operation.
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