

2022

1st Semester Examination

COMPUTER SCIENCE

Paper : COS 195

(Practical)

Full Marks : 50

Time : Two Hours

*The figures in the margin indicate full marks.
Candidates are required to give their answers
in their own words as far as practicable.*

Paper : COS 195 (M1)

Answer any *one* question : $20 \times 1 = 20$

Question should be selected on lottery basis.

1. Write a CUDA C program to add two vectors of size 10. Use device to add the numbers.

P.T.O.

(2)

2. Write a CUDA C program that will read an array of 10 numbers and calculate square of each number using device.
3. Write a CUDA C program to use an array of 10 numbers and calculate the sum of digits of each numbers using device.
4. Write a CUDA C program to add 100 to each element of an array of size 10.

Note : for each program block size will be 1.

Number distribution :

Coding : 12

Output : 2

Discussion : 6

Viva : 5

Paper : COS 195 (M2)

(Image Processing Lab)

Answer any *one* question : $20 \times 1 = 20$

1. Write a MATLAB program to extract Attributes of an Image.
2. Write a MATLAB program to perform addition, subtraction and entrywise Multiplication of two images.
3. Write a MATLAB program to perform Negative Image.
4. Write a MATLAB program Power Law Transformation with different gamma values.
5. Write a MATLAB program for Histogram Mapping and Equalization.

P.T.O.

6. Write a MATLAB program to perform Image Smoothing and Sharpening in spatial domain.

7. Write a MATLAB program to perform Image Smoothing and Sharpening in frequency domain.

8. Write a MATLAB program to edge using sobel and prewitt operators.

9. Write a MATLAB program to implement Median filter and Gaussian filter.

10. Write a MATLAB program to edge using sobel and prewitt operators.

11. Write a MATLAB program for Morphological Operations on Binary Images.

12. Write a MATLAB program for Pseudo Coloring.

13. Write a MATLAB program for Chain Coding.

14. Write a MATLAB program for DCT/IDCT Computation.

15. Write a MATLAB program to import color image and find its three components individually (R, G, B) and show it.

Viva-voce — 03 marks

LNB — 02 marks
