



Registration Number:
Date & session:

**ST. JOSEPH'S UNIVERSITY, BENGALURU -27**  
**M.Sc (BIG DATA ANALYTICS) – II SEMESTER**  
**SEMESTER EXAMINATION: APRIL 2023**  
(Examination conducted in May 2023)  
**BDADE2721 – DIGITAL IMAGE PROCESSING**  
**(For current batch students only)**

**Time: 2 Hours**

**Max Marks: 50**

**This paper contains ONE printed page and THREE parts**

**PART-A**

**Answer ALL the question**

**2X5=10**

1. Define Image and image processing.
2. Mention the difference between smoothing and filtering.
3. What do you mean by segmentation.
4. List the advantages of steganography.
5. What do you mean by color compliments?

**PART B**

**Answer any FIVE questions**

**4X5=20**

6. How sampling is different from quantization? Explain.
7. Write a note on histogram processing.
8. Define edge detection. Explain any two edge operators.
9. Mention the purpose of image restoration.
10. What do you mean by image fusion?
11. Compare and contrast FFT and DFT.

**PART C**

**Answer any TWO questions**

**10X2=20**

12. With a help of block diagram explain the fundamental steps in digital image processing which can be applied to images..
13. What do you mean by Image classification? What are the different steps of image classifications? Give any two applications of image classifiers. (2+6+2=10)
14. What do you mean by thresholding? Explain any four types of thresholding techniques. (2+8=10)