BANKURA UNIVERSITY

B. Sc. (HONOURS) FIFTH SEMESTER EXAMINATIONS, 2021-22

Subject: Computer Science **Course ID: 51517**

Course Title: Digital Image Processing

Full Marks: 25 **Time: 1 Hr. 15 min**

The figures in the margin indicate full marks

Answer all the questions.

UNIT I

1. Answer *any five* of the following questions: **(1 × 5 = 5)**

a) Define gray image.

b) Define image sharpening.

c) Define gradient of an image.

d) What is mean filter?

e) Define image compression.

f) Define wavelet transformation.

g) What is edge?

h) Define image histogram.

UNIT II

2. Answer *any two* of the following questions: **(5 × 2 = 10)**

a) Explain Fourier transformation.

b) Write short note on RGB color model.

c) Write short note on median filtering.

d) Write down some applications of digital image processing.

UNIT III

3. Answer *any one* of the following questions: (10 × 1 = 10)

a) Explain the image filtering techniques.

b) Explain wavelet transform and write its application.

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B. Sc. (HONOURS) FIFTH SEMESTER EXAMINATIONS, 2021-22

Subject: Computer Science **Course ID: 51517**

Course Title: Microprocessor

Full Marks: 25 **Time: 1 Hr. 15 min**

The figures in the margin indicate full marks

Answer all the questions.

UNIT I

1. Answer *any five* of the following questions: **(1 × 5 = 5)**

a) Define microprocessor.

b) Define microcontroller.

c) What is addressing mode?

d) Define machine cycle.

e) What is the function of BHE/S7 pin of 8086 microprocessor?

f) What is the function of READY pin of 8086 microprocessor?

g) Explain the difference between a JUMP and a CALL instruction.

h) What is BIU?

UNIT II

2. Answer *any two* of the following questions: **(5 × 2 = 10)**

a) Explain the function of Execution Unit.

b) Describe addressing modes of 8086 microprocessor.

c) Write short note on data bus of 8086 microprocessor.

d) Write down the features of 8086 microprocessor.

UNIT III

3. Answer *any one* of the following questions: **(10 × 1 = 10)**

a) **Explain the 8086 microprocessor's register organization.**

b) **Write an assembly level program for 8086 microprocessor to compute the LCM and GCD of two numbers.** **5+5**

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