Day : Monday   Time : 10:00 AM-01:00 PM

Date : 1/8/2022   **S-14106-2022**   Max. Marks : 60

N.B.:

1) All questions are **COMPULSORY**.
2) Figures to the right indicate **FULL** marks.
3) Answers to both the sections should be written in **SEPARATE** answer books.
4) Assume suitable data, if necessary.

SECTION – I

Q.1 How is an image formed in the eye? Explain with a diagram.   [10]

OR

Explain the following image processing applications: [10]
a) Gamma Ray Imaging   b) X-Ray Imaging

Q.2 Explain the following intensity transformations: [10]
a) Image negative   b) Log transformation   c) Bit plane slicing

OR

Explain the procedure for frequency domain filtering.   [10]

Q.3 Explain the image compression model.   [10]

OR

Explain LZW coding for image compression.   [10]

SECTION – II

Q.4 Explain edge detection algorithm.   [10]

OR

Explain segmentation using watersheds.   [10]

Q.5 Explain arithmetic, geometric, harmonic mean filtering with example.   [10]

OR

What is salt and pepper noise? Discuss contra harmonic filter when Q is positive,   [10]
negative and -1.

Q.6 Explain general video coding scheme with a diagram.   [10]

OR

Explain high density method of video recording and reproduction.   [10]

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