

Total number of printed pages-5

53 (EC 714) DIPR

2021

**DIGITAL IMAGE PROCESSING**

Paper : EC 714

Full Marks : 100

Time : Three hours

**The figures in the margin indicate full marks for the questions.**

Answer **any five** questions.

1. (a) State Nyquist criteria in 2D sampling. State ideal sampling and practical sampling in image processing. 15
- (b) State a few applications of image processing in astronomical science. 5
2. (a) Show that in uniform quantization, the mean quantization error =  $\frac{\Delta^2}{12}$ , where  $\Delta$  is the step height for quantization. 10

Contd.