

M. Sc. (ECI) (Sem. X) (CBCS) Examination April / May - 2017

Seat No.

Digital Signal Processing: Paper - 38

Faculty Code: 003 Subject Code: 0271002

Time: Hours] [Total Marks : 70 All questions carry equal marks. Instructions: (1) Figures on right hand side indicate marks. (2)1 Answer the following in brief: 14 Define basic signal. What exactly DSP means to you? What are the major classification of signals? (3) What are periodic signals? (4) What are even signals? **(5)** What is unit-step function? (6)(7)What is pulse function? 2 Answer any two: 14 Write note on advantage of DSP over ASP. (1) Explain in brief: various dimensions of real life signals (2)Explain in brief: LTI System. (3)3 14 Answer the following: What are the different ways of representing a system? With a block diagram explain the process of analogto-digital conversion.

OR

- 3 Answer the following:
 - What do you understand by odd and even function? (1)
 - Point out the difference between continuous Fourier transform and discrete Fourier transform. Justify.

14

4 Answer the following: (any two)

- the
- (1) State the necessary and sufficient conditions for the existence of the Fourier series.
- (2) Explain the different forms of Fourier series.
- (3) What is region of convergence?
- 5 Answer the following: (any two)

14

14

- (1) Give differences between: Analog and Digital Filters
- (2) Give differences between: FIR and IIR Filters
- (3) Define phase delay and group delay.
