Code: 1G372

IV B.Tech. I Semester Supplementary Examinations May 2018
Digital Signal Processing
(Common to EEE & ECE)

Max. Marks: 70   Time: 3 Hours

Answer any **five** questions
All Questions carry equal marks (**14 Marks** each)
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1.		Discuss about various properties of Discrete Time Systems.	14M
2.	a)	State and Prove (i) Linearity (ii) Shifting (iii) Convolution properties of DFT.	6M
	b)	Compute DFT of a sequence x (n) = {1,1,1,1,1,1,0,0}.	8M
3.	a)	What are the drawbacks associated with the computation of DFT? Explain how they can be eliminated with FFT algorithm?	6M
	b)	Compute FFT of x (n) = {1,2,3,4,5,6,7,8} using DIT FFT algorithm.	8M
4.		Realize the system defined by the difference equation given by y (n) = 0.75 y(n-1) - 0.125 y(n-2) + x(n) + 0.333 x(n-1) in Direct form-I, Direct – form - II, Cascade and parallel form.	14M
5.	a)	Derive an expression for the order (N) of the Butterworth low pass filter.	8M
	b)	Discuss the design procedure of Chebyshev low pass filter.	6M
6.	a)	Compare FIR and IIR filters.	4M
	b)	Explain FIR filter design using Windowing technique.	10M
7.	a)	Explain in detail about Up sampling and Down sampling in detail with necessary diagrams.	8M
	b)	Discuss the applications of multirate signal processing.	6M
8.	a)	Explain about speech coding and de-coding.	4M
	b)	With a neat block diagram explain about Digital Radio.	10M

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Code: 1G47D

IV B.Tech. I Semester Supplementary Examinations May 2018
Object Oriented Programming
(Electronics & Communication Engineering)

Max. Marks: 70   Time: 3 Hours

Answer any five questions
All Questions carry equal marks (14 Marks each)
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1.   Write and explain the principles of object oriented programming.

2. a)   What is a method? How can we overload them? Explain with example program.
   b)   What is garbage collection? Explain its importance in java programming.

3.   Explain in detail about the various types of inheritance supported by java programming.

4. a)   Give brief description about the java packages.
   b)   How can we use the interfaces in java programming? Write example program to demonstrate

5. a)   Write and explain the various keywords present in exception handling.
   b)   Distinguish between process and threads. Draw and explain the lifecycle of a thread.

6.   Explain the following layout managers with a simple program:
        a. Border layout manager.
        b. Grid layout manager

7. a)   How can we create the scrollbars by using AWT programming? Explain.
   b)   Describe about the life cycle of an applet.

8.   Discuss about the following:
        a. Inetaddress.
        b. TCP/IP sockets.

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