14ELF14

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MSc DEGREE EXAMINATION DECEMBER 2018
(Third Semester)

Branch - **APPLIED ELECTRONICS**

DIGITAL SIGNAL PROCESSING

Time : Three Honrs Maximum : 75 Marks

SECTION -A (30 Marks)

Answer **ALL** questions
ALL questions carry **EQUAL** Marks (5 x 6 = 30)

1 a Discuss the classification of signals.

OR

b Describe the interconnection of LTI systems.

2 a State and explain any six properties of DFT.

OR

b Compare and contrast circular and linear convolutions.

3 a Explain the design of simple digital filter.

OR

b Compare HR and FIR filters.

4 a List the key features of TMS 320C 5416.

OR

b Describe the internal memory organization of TMS 320C 5416.

5 a Explain the Inline functions used in MATLAB.

OR

b Explain the animation process using MATLAB.

SECTION -B (45 Marks)

Answer any **THREE** questions
ALL questions carry **EQUAL** Marks (3 x 1 5 = 45)

6 Discuss the frequency analysis of discrete time signals and discrete time systems.

7 Explain Radix2. 8-point DIT FFT algorithm with necessary flow graphs.

8 Discuss in detail the design of HR filters from analog filters.

9 Draw the functional block diagram of TMS 320C 5416 and describe the functions of each block.

10 Explain the types of functions used in MATLAB.

Z-Z-Z END