PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MSc DEGREE EXAMINATION MAY 2018
(First Semester)

Branch - **APPLIED ELECTRONICS**

ANALOG & DIGITAL CIRCUIT DESIGN

Fime : Three Hours Maximum : 75 Marks

SECTION -A (30 Marks)

Answer ALL questions

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

1 a What is an integrator and explain its operation?

OR

b Describe briefly about the working of PLL.

2 a Write a short note on saw tooth generators.

OR

b Describe the operation of high voltage regulators.

3 a Explain with an example about the working of parity generator.

OR

b What is a decoder and explain its concept of working?

4 a Define the working of mealy machine.

OR

b Write short note on synchronous and sequential logic circuits.

5 a What are the types of FPGA and list them?

OR

b Write short note on Input / Output Block (IOB).

SECTION -B (45 Marks)

Answer any **THREE** questions

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

6 Explain briefly about the working of Log and Anti log amplifier with circuit diagrams.

7 Describe working of IC 723 voltage regulator with neat circuit diagram.

8 Explain briefly about operation of multiplexer and demultiplexer with suitable examples.

9 Discuss in detail about the concept of state table minimization.

10 Explain briefly about the analysis and digital circuit using OrCAD.