PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MSc DEGREE EXAMINATION MAY 2018
(Third Semester)

Branch - APPLIED ELECTRONICS

ARM PROCESSOR

Time : Three Hours **Maximum : 75 Marks**

SECTION -A (30 Marks)
Answer ALL questions
ALL questions carry EQUAL Marks (5 x 6 = 30)

1 a Explain the following :
(i) Thumb state register set (ii) Program status register
OR ~
b Explain the features of instruction pipeline and memory access.

2 a Describe the details of addressing signals.
OR
b Explain the functions of interrupt Latencies.

3 a Discuss the importance of undefined and privileged instructions.
OR
b Explain in details of enabling and disabling embedded ICE Logic.

4 a **Describe about interrupt and external memory controller.**
OR
b **Explain the features of fast general purpose parallel I/O ports in LPC2378.**

5 a **Describe the features of Ethernet interface.**
OR
b Explain the importance of watch dog timer and real time clock (RTC).

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

6 **Draw and explain in detail about the functional block diagram** of **ARM7TDMI.**

7 Explain in details about different types of Bus cycles in ARM7TDMI.

8 How to interface coprocessor in ARM7TDMI and explain with neat diagrams?

9 Draw with neat functional blocks and explain the details in architecture of LPC2378.

10 Explain the following features :
(i) UART (ii) USB interface.