

**PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)**

**MSc DEGREE EXAMINATION DECEMBER 2018  
(Third Semester)**

Branch - **APPLIED ELECTRONICS**

**ARM PROCESSOR**

Time : Three Hours

Maximum : 75 Marks

**SECTION -A 130 Marks!**

Answer **ALL** questions

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

- 1 a Explain the features of ARM7TDMI processor.  
OR  
b Describe the registers of ARM processor.
- 2 a Explain the various data types of ARM7TDMI.  
OR  
b What do you understand by Power-up Mode? Explain.
- 3 a What are the pipe line signals? Explain their function.  
OR  
b With suitable examples, explain privileged instructions.
- 4 a Discuss the memory organization of LPC 2378.  
OR  
b Write a note on external memory controller.
- 5 a Explain the operation of UART in LPC 2378.  
OR  
b Describe the functions of CAN controller in LPC 2378.

**SECTION -B (45 Marks)**

Answer any **THREE** questions

**ALL** questions carry **EQUAL** Marks (3 x 15 = 45)

- 6 Draw the pin diagram of ARM7TDMI and explain the functions of each pin.
  - 7 Describe the various memory formats in ARM7TDMI with suitable examples.
  - 8 Give detailed notes on (i) Interface handshaking and (ii) Communication channels.
  - 9 Draw the block diagram of LPC 2378 and explain its function.
- U) Explain in detail, the registers used to configure the Timers and also I2C in LPC 2378 with a suitable example.