

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

**BSc DEGREE EXAMINATION MAY 2019  
(Fourth Semester)**

**Branch – INFORMATION TECHNOLOGY**

**MICROPROCESSOR & ITS APPLICATIONS**

Time : Three Hours

Maximum : 75 Marks

**SECTION-A (20 Marks)**

Answer **ALL** questions

**ALL** questions carry **EQUAL** marks (10 x 2 = 20)

- 1 What is bus?
- 2 Expand EEPROM.
- 3 Define Memory.
- 4 What is meant by interrupt?
- 5 What are the Data transfers instruction?
- 6 Write difference between continuous and conditional loop.
- 7 Draw the flow chart a 8 bit addition.
- 8 Write the 2<sup>nd</sup> complement of a number 10011100.
- 9 What are the I/O modes used in 8255 PPI?
- 10 Define Binary Counter.

**SECTION - B (25 Marks)**

Answer **ALL** Questions

**ALL** Questions Carry **EQUAL** Marks (5 x 5 = 25)

- 11 a Explain the operation of 8085 registers.  
OR  
b List out the peripheral initiated operations.
- 12 a Explain the generating control signals.  
OR  
b What is memory interfacing? And explain the memory structure.
- 13 a What is the Arithmetic Instruction? And explain.  
OR  
b Explain the rotate basic operations.
- 14 a Write an assembly language program for subtraction of two 16 bit umbers.  
OR  
b Write an assembly language program for ascending order.
- 15 a Write short notes on design of ring counter.  
OR  
b Explain the 8255 PPI control word.

**SECTION - C (30 Marks)**

Answer any **THREE** Questions

**ALL** Questions Carry **EQUAL** Marks (3 x 10 = 30)

- 16 What are the memory classifications? and explain it.
- 17 Draw the block diagram of 8085 architecture and explain.
- 18 Explain the operation of Branch Instruction with example.
- 19 Write an assembly language program for sum of series of 8 bit numbers.
- 20 Explain the application of water level indicator using 8255 PPI.