PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION MAY 2022
(Fourth Semester)

Branch – COMPUTER SCIENCE

MICROPROCESSOR

Time: Three Hours   Maximum: 75 Marks

SECTION-A (10 Marks)
Answer ALL questions
ALL questions carry EQUAL marks   (10 x 1 = 10)

1   What is the store is register?
(i)   operators   (ii)   operands
(iii) memory   (iv) none of these

2   Which is accumulator based microprocessor?
(i)   Intel 8085   (ii)   Motorola 6809
(iii) both A and B   (iv) None of these

3   Which is used to store critical pieces of data during subroutines and interrupts?
(i)   Stack   (ii)   Queue
(iii) Accumulator   (iv) Data register

4   Which is not the control bus signal?
(i)   READ   (ii)   WRITE
(iii) RESET   (iv) none of these

5   Which is created using bipolar transistors is called?
(i)   Dynamic RAM   (ii)   Static RAM
(iii) Permanent RAM   (iv) DDR RAM

6   Identify DS stands for_____
(i)   Data segment   (ii)   Direct segment
(iii) Declare segment   (iv) Divide segment

7   Find the address bus wide in 8086 microprocessor
(i)   12 bit   (ii)   10 bit
(iii) 16 bit   (iv) 26 bit

8   What is the work of EU?
(i)   encoding   (ii)   decoding
(iii) processing   (iv) calculations

9   What is the CF?
(i)   carry flag   (ii)   condition flag
(iii) common flag   (iv) single flag

10   What is the SF?
(i)   service flag   (ii)   sign flag
(iii) single flag   (iv) condition flag

SECTION - B (25 Marks)
Answer ALL questions
ALL questions carry EQUAL Marks   (5 x 5 = 25)

11 a Analyse operations of microprocessor.
OR
   b Narrate the types of registers in 8085 microprocessor.

12 a How the demultiplexing the bus works? Explain.
OR
   b Produce the functions of memory interfacing.

13 a Describe the data transfer instruction with example.
OR
   b List out the arithmetic operations and explain with example.

14 a Demonstrate the addition of two 8/16 bit number with suitable example.
OR
   b Develop the methods of division of two-8-bit data.

15 a Write down the advantages of microprocessor 8086.
OR
   b Describe the memory organization of 8086

SECTION - C (40 Marks)
Answer ALL questions
ALL questions carry EQUAL Marks   (5 x 8 = 40)

16 a Draw and explain the bus organization of 8085 microprocessor.
OR
   b Outline the internal data operations of 8085 microprocessor.

17 a Discuss the 8085 MPU and its architecture with diagram.
OR
   b Elaborate the address decoding and memory addressing.

18 a Analyse the various types of branch operations?
OR
   b Discuss the additional data transfer and 16 bit arithmetic instruction.

19 a Discover to find the largest number in an array and give example.
OR
   b Demonstrate the multiplication of two-8-bit data.

20 a Draw and explain the architecture of 8086 microprocessor.
OR
   b Summarize the Pin configuration of 8086 with diagram.

Z-Z-Z   END