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PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BSc DEGREE EXAMINATION JUNE 2014
(Sixth Semester)

Branch – PHYSICS

MICROPROCESSOR ARCHITECTURE & PROGRAMMING

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 CPU?
2   Write down any one difference between analog and digital computer.
3   Write a note on ALU of 8085 microprocessor.
4   Write a note on interfacing.
5   Explain LXI H, Address instruction.
6   Write down any two logical instructions.
7   Write down the advantage of branching operation.
8   Write a note on binary number system.
9   Explain BCD number system.
10   Write a note on LED code conversion.

SECTION - B (25 Marks)
Answer ALL Questions
ALL Questions Carry **EQUAL** Marks (5 x 5 = 25)

11 a   Write a note on the following : Memory, Control Unit.
            OR
     b   Briefly discuss about computer languages.

12 a   Write a note on microprocessor based single board microcomputer.
            OR
     b   Briefly explain the memory mapped IO scheme.

13 a   Explain with example about the various branching instructions of 8085 microprocessor.
            OR
     b   Explain with example about the data transfer instructions of 8085 microprocessor.

14 a   Discuss the 16-bit arithmetic instructions of 8085 microprocessor.
            OR
     b   Explain briefly about looping, counting and indexing.

15 a   Write an assembly language program to multiply two 8-bit numbers using 8085 microprocessor.
            OR
     b   Explain the BCD to binary number using 8085 microprocessor.

SECTION - C (30 Marks)
Answer any THREE Questions
ALL Questions Carry **EQUAL** Marks (3 x 10 = 30)

16   Discuss in detail about the micro computer system.

17   Discuss in detail the 8085 microprocessor architecture and its operations.

18   Explain with example about the various arithmetic instruction of 8085 microprocessor.

19   Explain the additional data transfer instructions with example.

20   Write an assembly language program to perform subtraction with carry.

Z-Z-Z   END