PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BSc DEGREE EXAMINATION MAY 2018
(Fifth Semester)
Branch – ELECTRONICS
PIC MICROCONTROLLER

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 a PIC Microcontroller?
2   What is meant by RSIC?
3   How many banks are there in PIC Microcontroller?
4   How many bytes are allocated for special purpose registers in PIC?
5   What is meant by power down mode?
6   What is the alternative use of the I/O pins of port C in PIC?
7   Which register performs the function of the accumulator in PIC?
8   Define baud rate.
9   What s meant by USART?
10   Mention any applications of Zigbee technology.

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

11 a   Explain the register file structure of PIC.
OR
    b   Give advantages of PIC Microcontroller over the others.

12 a   Explain the stack file selection register.
OR
    b   Write a short note on pipe lining.

13 a   Explain the classifications of the Instruction set of PIC with example.
OR
    b   Write a note on MPASM.

14 a   Explain the PIC to PIC communication using the mode I^2C technique.
OR
    b   Explain the interfacing of DAC to PIC.

15 a   Write a note on Bluetooth protocols.
OR
    b   Explain the various Zigbee components.

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

16   Briefly explain the concepts of RISC.

17   Explain with a neat schematic the basic architecture of a PIC Microcontroller.

18   Explain the numeric constants and Radix key to PIC 16 series Instruction set.

19   In detail with a schematic explain the interfacing of a stepper motor to PIC.

20   Explain the various network topologies in Zigbee.

Z-Z-Z   END