Yashwantrao Chavan College of Science Karad

Department of Computer Science

Class B.Sc. Entire II   Subject – Electronics

Paper Name – Microcontroller Architecture and Programming

Que 1) Long Answer

a) Explain block diagram of 8051 microcontroller

b) Explain Architecture of 8051 microcontroller

c) Explain arithmetic instruction set of 8051microcontroller

d) Explain Logical instruction set of 8051microcontroller

e) Explain any one instruction set of 8051microcontroller

f) Explain JUMP and Loops instruction set of 8051microcontroller

g) Explain CALL instruction set of 8051microcontroller

h) Explain Bit manipulation instruction set of 8051microcontroller

i) Explain Timers of 8051 microcontroller

j) Explain timers in mode 1 with program

k) Explain timers in mode 2 with program

l) Explain Timer Control Register of 8051 microcontroller

m) Explain Timer mode register of 8051 microcontroller

n) Write a program for transmitting a character through a serial port using assembly language

o) Write a program for transmitting a character through a serial port using c language

p) Interfacing of LED with 8051 microcontroller and write a program

q) Write a program for interfacing of 8051 microcontroller with Switch with diagram

r) Draw the diagram of interfacing of Relay with 8051 microcontroller with program

s) Interfacing of Thumb wheel switch with 8051microcontroller with its program

t) Interfacing of Seven Segment Display with 8051microcontroller with its program

u) Interfacing of Stepper Motor

v) Interfacing of DC motor

w) Interfacing of LCD

x) Explain any one addressing mode of 8051 microcontroller

Que 2) Short Answer

1) Give the comparison between microcontroller and microprocessor

2) give the applications of 4 and 8bit microcontroller

3) Explain Reset and clock circuit of 8051 microcontroller

4) Explain Flag register of 8051 microcontroller

5) Explain special function registers of 8051 microcontroller

6) Explain immediate addressing mode of 8051 microcontroller

7) Explain register addressing mode of 8051 microcontroller

8) Explain register indirect addressing mode of 8051 microcontroller

9) Explain indirect addressing mode of 8051 microcontroller

10) Explain index addressing mode of 8051 microcontroller

11) Explain TCON register of 8051microcontroller

12) Explain TMOD register of 8051 microcontroller

13) Explain SCON register of 8051 microcontroller

14) Explain PCON register of 8051 microcontroller

15) Explain RS-232 standard of8051 microcontroller

16) Explain Baud rate in 8051 microcontroller

17) Draw the diagram of LED interfacing with8051 microcontroller

18) Draw the diagram of Relay interfacing with 8051 microcontroller

19) Draw the diagram of Seven segment display with 8051 microcontroller

20) Draw the diagram of DC motor with 8051 microcontroller.