2021
B.E. (Electronics and Communication Engineering)
Fifth Semester
EC-506: Advanced Microcontrollers and Applications

Time allowed: 3 Hours

Max. Marks: 50

NOTE: Attempt _five_ questions in all, including Question No. 1 which is compulsory and selecting two questions from each Unit.

x-x-x

I. Attempt the following:-

a) Examples of small scale and large scale embedded systems

b) Firmware

c) Embedded Systems

d) Name two Operating Systems.

e) Role of Boot loader   (5x2)

UNIT – I

II. Explain the architecture of ARM Processor along with its applications.   (10)

III. Explain configuration of two 8- bit and one 16- bit timers and counters.   (10)

IV. Explain the characteristics ofAtmega8, Tmega8 and ATmea 328. Which one is most suitable for designing mobile embedded system applications?   (10)

UNIT – II

V. Explain the working of open source embedded development board using block diagram.   (10)

VI. Write a program to interface the DC motor with Arduino controller.   (10)

VII. Explain functional blocks of accelerometer based gesture control robot.   (10)

x-x-x