

Exam.Code:0929  
Sub. Code: 6912

1128  
B.E. (Electronics and Communication Engineering)  
Fifth Semester  
EC-506: Advanced Microcontrollers and Applications

Max. Marks: 50

Time allowed: 3 Hours

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) Operating System
  - b) Firmware
  - c) Application of Embedded Systems
  - d) ISP feature
  - e) Open source hardware
  - f) Emulation
  - g) Arduino controller
  - h) Name two applications that can be build with the help of Arduino microcontroller
  - i) Addressing mode (10x1)
  - j) ARM stands for? (10x1)

UNIT - I

- II. Explain the architecture of 8-bit Microcontroller along with its pin diagram. (10)
- III. Explain configuration of two 8-bit and one 16-bit timers and counters. (10)
- IV. Explain bootloader circuit with the help of diagrams. (10)

UNIT - II

- V. Explain the working of open source embedded development board using block diagram. (10)
- VI. Briefly explain the concept of input and output port of Embedded development board. Also write a program for Serial port Interfacing (10)
- VII. Explain functional blocks of accelerometer based gesture control robot. (10)

x-x-x