

**Assignment 1 SEE 3233 Microprocessor**  
**Semester: 2012/13**  
**Academic Session: II**

**Name:**

**Matrix number:**

**Please answer all questions in maximum on two pieces of papers including this page. Please attach illustration(s) and/or block diagram if necessary to support your answers. (Submission before or on 14 March 2012)**

**Question 1:** Find 4 other microcontrollers that has at least one similar feature with AVR Atmega32. Name the microcontroller model and its similarity. It can be similar in term of number of ADC, memory space, I/O, capability, etc. For example: Microchip PIC16F877A also has 8 Analog Digital Converter (ADC).

(40 MARKS)

1. .
2. .
3. .
4. .

**Question 2:** You are a design engineer of a multinational company. You have just received a new project to design a new novel embedded system from a customer. The customer does not mention what he wants but must contain the following components:

- i. Microcontroller
- ii. Wireless module (ZigBee)
- iii. GPS
- iv. GPRS

He only stressed he wants a new novel embedded system that has great demand in Malaysia. Describe in details what would be your invention? Why is it needed and how you going to do it. Your answer may include introduction, problem background, system design and detail description on how it works

(60 MARKS).

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