Total No. of Questions: 12]	SEAT No. :
P1974	[Total No. of Pages : 3
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|5254|-83 **B.E.** (Electronics) **EMBEDDED SYSTEM (2008 Pattern)**

Time: 3 Hours] [Max. Marks : 100]

Instructions to the candidates:

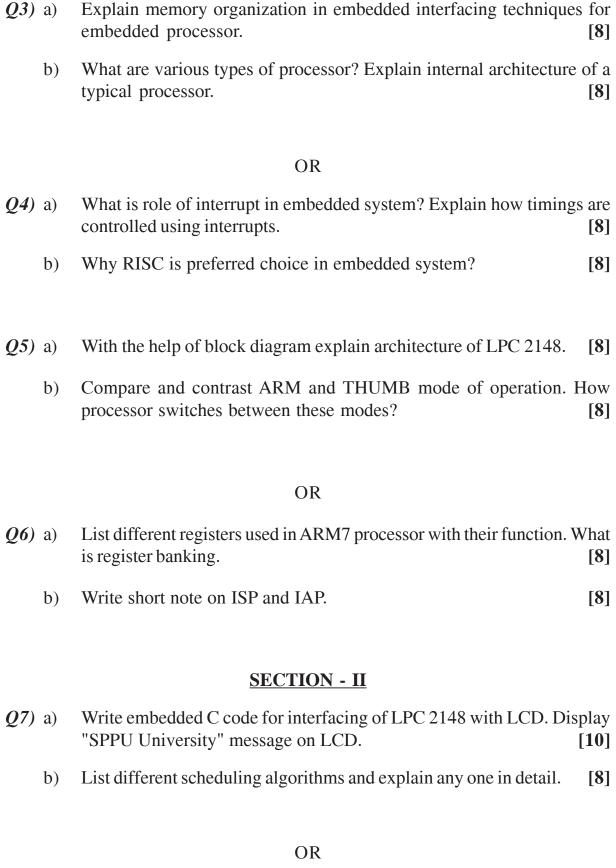
- 1) Answer 3 questions from section I and 3 questions from Section II.
- *2*) Answers to the two sections should be written in separate books.
- 3) Neat diagrams must be drawn wherever necessary.

SECTION - I

- What is design metric? Explain the following design metrics. **Q1**) a) [8]
 - i) Power
 - Time to market ii)
 - iii) Safety
 - NRE cost iv)
 - Size V)
 - vi) Performance
 - Explain Blue tooth protocol. State it's features. Compare it with zig. bee. b) [10]

OR

- What is IDE? Explain role & importance of tool chain in embedded **Q2**) a) system software development. [10]
 - Define embedded system. Explain characteristics of embedded system. [8] b)



2

Q8) a)	How on chip multichannel ADC and DAC are configured? Explain with help of register. [10]
b)	Explain any one on chip communication protocol on LPC 2148 in detail. [8]
Q9) a)	What are features of μ cos-II? List any four services offered by μ cos-II. [8]
b)	Draw and explain state diagram. [8]
	OR
Q10)a)	Explain management function calls for following kernel object of μ cos -II. [8]
	i) Mailbox
	ii) Message queue
b)	Compare General Purpose OS and RTOS. [8]
Q11)a)	With the help of block diagram, processor, memory, inter-task communication, & software architecture, explain digital camera. [10]
b)	Explain priority Inversion problem with proper timing diagram in RTOS with suitable example. [8]
	OR
<i>Q12</i>)a)	Explain with neat block diagram adaptive cruise control system in automotive. [10]
b)	Explain memory management and expansion techniques in embedded system. [8]