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BICSE-013

B.Tech. – VIEP – COMPUTER SCIENCE AND ENGINEERING (BTCSVI)

Term-End Examination

00923

June, 2015

BICSE-013 : REAL TIME SYSTEMS

Time : 3 hours *Maximum Marks : 70*

Note : *Answer any* ***seven*** *questions. All questions carry equal marks.*

1. What do you mean by Real time operating system ? What are the hardware requirements for real time system ? *10*

2. What do you mean by cache coherency ? Explain in detail with the help of example. *10*

3. Give the design specifications for a real time system. Also explain the concept of task scheduling in real time system. *10*

4. What is structured flow chart ? Give a brief description of step-wise development of a software system. *10*

5. What do you mean by programming languages ? Differentiate between high level and low level programming languages. Also list the advantages of high level language over low level language. *10*

6. What is the difference between subroutine call and function call ? Explain with the help of suitable program. *10*

7. What are the different types of interfaces available for real time system ? Explain D to A and A to D conversion interface in detail. *10*

8. Explain the working of signal conditioning circuits with an illustration. *10*

9. What is Microprocessor ? How is it different from Microcontroller ? Explain the different types of addressing modes available with Microprocessor 8085. *10*

10. Write short notes on the following : $4 \times 2\frac{1}{2} = 10$

    (a) DMA

    (b) System Software

    (c) Machine Language

    (d) Flash Converter