

**B.Tech. – VIEP – ELECTRONICS AND
COMMUNICATION ENGINEERING
(BTECVI)**

00926

Term-End Examination

June, 2016

**BIEL-025 : ADVANCED MICROPROCESSOR
ARCHITECTURE**

Time : 3 hours

Maximum Marks : 70

*Note : Attempt any **seven** questions. All questions carry equal marks. Use of scientific calculator is allowed.*

1. (a) Describe the methods used for measuring computer performance. 5
- (b) Describe the differences between Uni-bus and Multi-bus architectures. 5

2. Describe the important features of the designing of a computer system. How is the cost related to computer design ? 10

3. How do you design an instruction set of a computer for achieving a completeness ? Describe the use of different types of instructions. 10

4. Explain the role of assembler and compiler in detail. How is a two-pass assembler different from a one-pass assembler ? 10
 5. Explain the methods to extend the pipeline to handle multicycle operations. 10
 6. Is pipelining multiprocessing ? Discuss different data hazards and control hazards. 10
 7. (a) What are multi-vector computers ? State their uses with an example. 5
(b) Discuss the methods for overcoming data hazards with dynamic scheduling. 5
 8. State the classification of parallel computers and give an application in each case. 10
 9. (a) What are the different policies that are used for updating main memory ? Explain the advantage of each policy. 5
(b) What is Content Addressable Memory (CAM) ? 5
 10. Explain the concept of virtual memory. State different mapping methods used in a virtual memory system. 10
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