

5637216

B.Tech. DEGREE EXAMINATION,  
NOVEMBER/DECEMBER 2016.

Seventh Semester

Computer Science and Engineering

COMPUTER HARDWARE AND NETWORK  
TROUBLESHOOTING

(2013-2014 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 2 = 20 marks)

Answer ALL questions.

All questions carry equal marks.

1. How does speculative execution increase the rate of instruction execution?
2. Differentiate fully associative mapped cache, direct-mapped cache and set associative cache.
3. Define maskable interrupts.
4. State the functions of Bootstrap loader.

5. List the advantages of DRAM.
6. Define seek time and latency time.
7. List the three major technologies used by wireless input devices.
8. What does resolution indicate?
9. State the advantages of Universal Serial Bus (USB).
10. Mention the three basic topologies used in computer networks.

PART B — (5 × 11 = 55 marks)

Answer ALL questions, choosing ONE from each Unit.

#### UNIT I

11. (a) List any five PC system components and explain them briefly. (6)  
(b) Discuss briefly the three main processor specifications. (5)  
Or
12. (a) Explain briefly how Hyper Threading technology works. (6)  
(b) Explain how a dual-core processor handles multiple applications to achieve faster performance. (5)

#### UNIT II

13. (a) Explain the key features of PCI express. (5)  
(b) Write short notes on interrupts. (6)

Or

14. (a) Write short notes on switches. (6)  
(b) Explain ROM shadowing in detail. (5)

#### UNIT III

15. Explain in detail how parity checking works. (11)

Or

16. Explain disk formatting in detail. (11)

#### UNIT IV

17. Explain how 3D graphics accelerators work in detail. (11)

Or

18. Explain the various pointing devices in detail. (11)

#### UNIT V

19. Explain hot-plugging in detail. (11)

Or

20. Explain TCP/IP protocol in detail. (11)