

**HD-2675****B. Sc. (Part I)****EXAMINATION, March-April, 2024****INFORMATION TECHNOLOGY****Paper Second****(Computer Fundamental and Operating System)***Time : Three Hours**Maximum Marks : 50***Note : Answer all questions.****Unit—I**

1. (a) Convert the following : 2
- (i)  $(1100101.001010)_2 = (?)_8$
- (ii)  $(A2B.D4)_{16} = (?)_{10}$
- (iii)  $(562)_8 = (?)_2$
- (iv)  $(1001.0011)_2 = (?)_{10}$
- (b) Describe the different types of computer. 4

- (c) Differentiate between Digital and Analog Computers. 4

**Unit—II**

2. (a) Define input and output devices with example. 2
- (b) Write short on the following : 4
- (i) I/O processor
- (ii) Keyboard
- (c) Differentiate between Raster Scan and Vector Scan display. 4

**Unit—III**

3. (a) Explain central processing unit in briefly. 2
- (b) Write short notes on the following : 4
- (i) Cache Memory
- (ii) MMU
- (c) Explain PCMCIA and Slots in detail. 4

**Unit—IV**

4. (a) What is Process Management ? Describe in brief. 2
- (b) Explain different types of operating system. 4
- (c) Write short notes on the following : 4
- (i) FCFS
- (ii) Preemptive and Non-preemptive scheduling

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**Unit—V**

5. (a) Explain process management in short. 2
- (b) Write short notes on the following : 4
- (i) Context Switching
  - (ii) Semaphores
- (c) Define Deadlock and also explain Deadlock characterization. 4