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END SEMESTER EXAMINATION – 2019

Semester : 5th (New)

Subject Code : ET-504

PC SYSTEM TECHNOLOGY

Full Marks – 70

Time – Three hours

The figures in the margin indicate full marks for the questions.

Instructions :

1. *All* questions of PART – A are compulsory.
2. Answer any *five* questions from PART – B.

PART – A

Marks – 25

1. Fill in the blanks : 1×10=10
 - (a) The contents of RAM are _____.
 - (b) The main advantage of a hard disk is its large _____.

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- (c) The most common input device used by today is the _____.
- (d) In computer, _____ is its heart.
- (e) MICR stands for _____.
- (f) Overall efficiency of online UPS is reduced since inverter is always _____.
- (g) DMA facility is required to increase the speed of data transfer between _____ and I/O device.
- (h) OS that permits multiple programs to be run simultaneously using a single processor is referred to as _____.
- (i) RS-485 is a _____ port.
- (j) Bus used to connect the monitor to the CPU is _____.
2. Write true or false : $1 \times 5 = 5$
- (a) Primary memories are semiconductor memories.
- (b) DRAM chip use a matrix of 6 transistor and one capacitor.
- (c) Keyboard is a pointing device.

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(2)



- (d) SRAM is used as cache memory.
- (e) A 25 pin female connector on the back of our computer will typically be a serial port.
3. Choose the correct answer : $1 \times 10 = 10$
- (a) A ROM is preferred to a semiconductor RAM because
- (i) ROM is cheaper than RAM
- (ii) ROM is faster
- (iii) ROM does not require power supply for their operation
- (iv) program stored in the ROM cannot be altered.
- (b) Control bus is used for transmitting and receiving control signals between
- (i) processor and the keyboard
- (ii) processor and the various devices
- (iii) processor and the memory
- (iv) input devices and the memory

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- (c) What is the full form of GUI ?
- (i) Graphical user instrument
 - (ii) Graphical unified interface
 - (iii) Graphical user interface
 - (iv) Graphical user instrument
- (d) DMA transfers implies
- (i) Direct transfer of data between memory and accumulator
 - (ii) Direct transfer of data between memory and I/O devices
 - (iii) Direct transfer of data between memory and I/O devices with out the use of microprocessor
 - (iv) A fast transfer between Microprocessor and I/O devices
- (e) Which one of the following is loaded in the main memory by the bootstrap loader ?
- (i) System data
 - (ii) User program
 - (iii) BIOS
 - (iv) Part of DOS



- (f) The number of times per second the electron beam scans the monitor and recharge the illumination of each pixel is known as
- (i) Resolution
 - (ii) Sharpness
 - (iii) Refresh rate
 - (iv) Dot pitch
- (g) The increasing order of speed of data access for the following devices is
- (a) Cache memory
 - (b) CD-ROM
 - (c) Dynamic RAM
 - (d) Processor register
- (i) (b), (c), (d), (a) (ii) (b), (c), (a), (d)
- (iii) (a), (b), (c), (d) (iv) (b), (a), (c), (d)
- (h) Which of the following was the first computer printer ?
- (i) laser
 - (ii) inkjet
 - (iii) dot matrix
 - (iv) None of the above

- (i) Macintosh is designed and developed by
 - (i) Apple
 - (ii) IBM
 - (iii) Microsoft
 - (iv) HP
 - (j) The computer attached to CPU which computer can access is called
 - (i) Peripherals
 - (ii) RAM
 - (iii) OS
 - (iv) ROM
- PART - B
Marks - 45
- 4. (a) Differentiate between IBM PC, PC-XT and PC-ATs. 6
 - (b) What is North bridge and South bridge? 3
 - 5. (a) What are the functions of an operating system? 3
 - (b) Discuss about the BIOS, POST and CMOS. 6
 - 6. (a) Explain the construction of an optical drive. 6
 - (b) What are the interfacing standard of an HDD? 3



- 7. Describe about various standards and use of serial and parallel communication port. 9
- 8. (a) Differentiate between the mouse and the track ball. 3
- (b) What do you understand by pointing device. 2
- (c) Explain about the DMA. 4
- (a) What are the different types of printers? Explain one of them. 6
- (b) What do you know about the pixel and resolution? 3
- 10. Discuss about the different types of UPS. 9
- 11. (a) Differentiate between laptop and desktop. 4
- (b) Explain about the booting procedure of a computer. 5

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