

SARDAR PATEL UNIVERSITY
BSc (III Sem.) Examination
Saturday, 8th December 2012
10.30 am - 12.30 pm
US03EELE01 - Fundamentals of Computer Hardware

Total Marks: 70

Note: Figures to the right indicate full marks.

- Q.1 Multiple choice questions. [10]
- (1) The register which holds the address of the next instruction to be executed is known as _____.
(a) Memory buffer register (b) Program control register
(c) Memory address register
 - (2) Which type of computer will you most likely encounter at the department of motor vehicles?
(a) Main frame (b) Smart phone
(c) Super computer
 - (3) Which computer can handle large and highly complex problems?
(a) Super computer (b) Main frame
(c) Smart phone
 - (4) Which one is the Sequential access Secondary Storage device?
(a) Magnetic tape (b) Magnetic drum
(c) Magnetic disk
 - (5) The magnetic disk rotates at the speed of _____ revolutions per minute.
(a) 1024 (b) 2400
(c) 2300
 - (6) Which type of disk can store up to 17 gigabytes of data?
(a) Floppy disk (b) Optical disk
(c) Digital video disk
 - (7) Pen based computers are commonly used for this type of work.
(a) Recording sound (b) Data collection
(c) Taking picture
 - (8) Which type of software can translate scanned text in to text that you can edit?
(a) OCR (b) ORC
(c) OCS
 - (9) A monitor's _____ is measured in hertz.
(a) Speed (b) Refresh rate
(c) Resolution
 - (10) A laser printer's speed is measured in _____.
(a) PPM (b) dpi
(c) CPS

- Q.2 Answer **Any Ten** in brief. [20]
- (1) Why are mainframe system usually limited in the number of task they perform?
 - (2) Differentiate RAM and ROM.
 - (3) Write a note on Super Computer.
 - (4) What determines the storage capacity of disk?
 - (5) Describe the function of the land and pit on the surface of the Compact disc.
 - (6) Explain how information recorded on the magnetic tape.
 - (7) Describe two benefits of using mouse.
 - (8) What does an image scanner do?
 - (9) What two capabilities does speech recognition software gives you?
 - (10) What are two advantages of LCD monitors compared to CRT monitors?
 - (11) Explain the thermal wax printer.
 - (12) Explain Dye-sublimation printers.
- Q.3 Draw the block diagram of the basic computer system and explain the function of different blocks. [10]
- OR**
- Q.3 Write a note on fixed and variable word length primary storage unit. [10]
- Q.4
- (a) Distinguish between sequential access and direct access secondary storage device and give one example of each. [05]
 - (b) Write the advantages and limitations of magnetic tape. [05]
- OR**
- Q.4
- (a) Name two types of solid state storage devices and explain any one. [05]
 - (b) Write a note on Hard disk. [05]
- Q.5
- (a) What processes take place inside the computer when you press a key on the computer keyboard? [05]
 - (b) In what way can you use a pen in a pen based computing system? [05]
- OR**
- Q.5
- (a) Explain how the barcode reader reads barcode and what it does with the information from the barcode? [05]
 - (b) Write a note on Digital Cameras. [05]
- Q.6
- (a) How does a colour CRT monitor produce images on the screen? [06]
 - (b) What four factors should you consider when evaluating printers? [04]
- OR**
- Q.6
- (a) How does a dot matrix printer create an image on paper? [04]
 - (b) Write a note on Plotters. [06]

* * *