

[This question paper contains 2 printed pages.]

**Sr. No. of Question Paper : 8592**

**C**

**Roll No.....**

Unique Paper Code : 234593

Name of the Paper : GEHT-503 : Computer Applications

Name of the Course : B.Sc. (Hons.) Geology, Part III

Semester : V

Duration : 3 Hours

Maximum Marks : 75

**Instructions to the Candidate**

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Parts of a question should be attempted together. Attempt **five (5)** questions in all.
3. PART A (Q1) is Compulsory (27 marks).
4. PART B (Q2-Q7) – Attempt any 4 questions. All questions carry equal marks.

**PART A (Q1) – (Compulsory, 27 marks)**

1. (a) What are Super computers ? Explain. (3)  
(b) Describe the main functions performed by the CPU with the help of a diagram. (4)  
(c) Explain Drum and Flatbed Plotter ? (4)  
(d) What are the functions of a Network Interface Card ? (2)  
(e) Explain the PS/2 and USB Ports, giving examples of each type. (4)  
(f) What do the following DOS commands do ? (2)  
(i) CLS (ii) DIR/W  
(g) What is the Octal representation of  $(2508)_{10}$  ? (2)  
(h) Add  $(11101010)_2$  and  $(10011101)_2$  (2)  
(i) Explain MAN. (2)  
(j) Give the 1's complement representation of  $(11010011)_2$ . (2)

*P.T.O.*

**PART B (Q2-Q7) – (Attempt any 4 questions)**

2. (a) Discuss the uses of computers. (4)  
(b) Explain *any four* characteristics of fifth generation computers. (4)  
(c) With the help of a diagram, explain the different components of a computer system. (4)
3. (a) What is the difference between SRAM, DRAM and SDRAM ? (6)  
(b) What is SMPS ? What role does it play in a computer system ? (3)  
(c) What is MODEM ? What does it do ? (3)
4. (a) Write the DOS commands corresponding to the following : (6)  
(i) Copy a file 'sample.doc' to a folder named 'Exams' in D drive.  
(ii) Make a new directory, with the name 'TestDir'.  
(iii) Remove files starting with 'S'.  
(iv) Format a disk drive E.  
(v) Clear the screen.  
(vi) Rename a directory 'Exams' to 'Computers'.  
(b) What is an operating system ? Discuss any 2 Types of Operating Systems ? (6)
5. (a) What are Scanners ? How are they used for data input ? (3)  
(b) Explain the use and functioning of a Joystick ? (4)  
(c) Describe the functioning of Inkjet printers. (3)  
(d) Write a short note on Speakers. (2)
6. (a) What is the difference between SIMM and DIMM ? (4)  
(b) Give the full form of the following abbreviations: MICR, OCR, LCD, PROM. (4)  
(c) Explain the Bus topology of a computer network, giving its advantages and disadvantages. (4)
7. (a) Using 1's complement and 2's complement, represent  $(-A3)_{16}$  in the binary number system. (4)  
(b) Convert each of these numbers to its corresponding Octal and Hexadecimal number :  
(i)  $(54)_{10}$  (ii)  $(11011010)_2$  (4)  
(c) Subtract  $(42)_8$  from  $(73)_8$ . Specify the result in Octal. (4)