2016

M.Sc. 1st Semester Examination

REMOTE SENSING & GIS

PAPER—RSG-104

Full Marks : 40

Time : 2 Hours

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

Group-A

(Computer Fundamentals)

[Marks : 20]

Answer any *two* questions.

1. Discuss the important features and uses of micro, mini, mainframe and super computer with examples. $2\frac{1}{2} \times 4$

2. (a) What is digital computer ?

(b) Discuss the types of input devices and output devices of a computer system.

(c) What are the main function of control unit (CU) of CPU.

2+3+3+2

3. What do you mean by Process Management ? Discuss with the help of a diagram the life cycle of a process. Differentiate between Uniprogramming and Multiprogramming.

2+5+3

4. (a) What is Base or Radia of a number system ?

(b) (i) Determine the binary equivalent of $(25)_{10}$.

(ii) Determine the octal equivalent of $(359)_{10}$.

(iii) Determine the decimal equivalent of $(456)_8$.

(iv) Determine the hexadecimal equivalent of $(11001011)_2$.

2+(4×2)

Group-B

(Programming Language)

[Marks : 20]

Answer any *two* questions.

1. What is a flowchart ? Briefly explain the symbols used in flowchart. 10

2. (a) Discuss the structured programming. Explain its merits and demerits.

   (b) Write a program in C to find the standard deviation in a data series. 5+5

3. (a) Briefly explain top-down and bottom-up approach of a programming language.

   (b) Why do we require "STUDIO.h" file and "getch ( )" while writing a C-program. 6+4

4. (a) Write a pseduocode to find whether a number is prime or not.

   (b) State the difference between while and do-while statement of C-program. 5+5