M.Sc. 1st Semester Examination, 2011

REMOTE SENSING AND GIS

PAPER—RSG-104 (Gr.-A + B)

(Theory)

Full Marks : 40

Time : 2 hours

The figures in the right-hand margin indicate 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. (a) What do you mean by Central Processing Unit (CPU) ? Draw the basic block diagram of CPU and explain its functions.

   (*b*) Explain the data flow between CPU, memory and
         I/O devices with diagram.   (2 + 4) + 4

2. What is algorithm ? What are the properties to be an
    algorithm ? Write an algorithm to determine the largest
    number out of three numbers *A*, *B* and *C*.   2 + 3 + 5

3. (*a*) What do you mean by high level languages ? What
         are the advantages and disadvantages of high level
         languages ?

    (*b*) What is an assembler ? Discuss the working of an
         Assembler ?   (2 + 2 + 2) + (2 + 2)

4. (*a*) What do you mean by compiler and interpreter ?
         Discuss the basic differences between them.

    (*b*) Explain the working of a linker with a diagram.
                                              (2 + 4) + 4

GROUP – B

(C *Programming*)

[*Marks* : 20]

Answer any **two** questions

1. (*a*) What is variable and constant ? Mention the rules
         for naming of a variable in C language. How is a
         variable defined C programming ?

   (b) Write a program in C to find the area and
       perimeter of a triangle.   5 + 5

2. (a) Explain the arithmetic and relational operators in
       C programming.

   (b) Write a program in C to find the maximum value
       in a list of some numbers.   5 + 5

3. (a) What is operator ?

   (b) Explain various operator in C.

   (c) Write a program to check whether a given year is
       leap year or not.   1 + 4 + 5

4. (a) Write a program to find the biggest value among
       10 numbers.

   (b) Write a program to print the reverse of a number.
                                                     5 + 5