2015

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.

Use separate answer-script for each Group.

Group—A

Computer Fundamentals

[Marks : 20]

Answer any *two* questions :   2×10

1. (a) Draw a block diagram to illustrate the basic organisation of a computer system, and explain the functions of various units of a computer system.

(b) Discuss the various applications of computers.

$(2+5)+3$

2. (a) What is secondary memory ? Discuss the benefits of secondary storage.

(b) How is sequential access method different from direct access method. Explain with the help of illustration.

$(2+3)+(3+2)$

3. (a) Why the binary number system is utilized for modern electronic digital computers.

(b) Perform the following conversions :

   (i) Convert binary $(11011)_2$ to decimal.

   (ii) Determine the binary equivalent of $(5AF)_{16}$.

   (iii) Determine the binary equivalent of $(36)_{10}$.

   (iv) Determine the binary equivalent of $(225)_8$.

$2+(4\times2)$

4. What do you mean by Operating System (OS) ? What are the different types of operating system ? Describe the basic functions of an operating system. $2+4+4$

Group—B

Programming Language

[Marks : 20]

Answer any *two* questions :   2×10

1. (a) State the term 'Data Structure'. Briefly explain any two data structure.

   (b) Give the basic structure to write a C-program.

   (2+5)+3

2. (a) What is a flowchart ? Draw a flowchart to find whether a given number is odd or even.

   (b) State the difference between compiler and interpreter.

   (2+4)+4

3. (a) Explain 'divide and conquer' method with a suitable example.   5

   (b) What is linked list ? What are advantages of using linked list ? How is it implemented ?   5

(Turn Over)

4. (a) What is a database management system ? Give any two examples.

(b) What do you mean by datatype is C ? State the different types of datatype.

(c) How does scanf function works ?

(2+2)+(2+2)+2

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