

2022

1st Semester Examination
REMOTE SENSING AND GIS

Paper : RSG 104

Full Marks : 40

Time : Two Hours

*The figures in the margin indicate full marks.
Candidates are required to give their answers
in their own words as far as practicable.*

Paper : 104.1**Group - A**Answer any *two* of the following questions : $2 \times 2 = 4$

1. Write down the differences between Low-level language and High-level language.
2. Name the main units of CPU.
3. What are the different types of Operating System?
4. Solve the expression $3/2 * 4 + 3 + (10/4)^3 - 2$.

Group - BAnswer any *two* of the following questions : $4 \times 2 = 8$

5. Convert: $(8AE)_{16}$ to corresponding binary number and

P.T.O.

then divide the number by 1011 to find the quotient and remainder. 2+2

6. Write down advantages of windows operating system over DOS. 2+2
7. Explain how the negative numbers are stored in a computer. 3+1
8. With the help of block diagram explain the basic organization of a Computer System.

Group - C

Answer any *one* of the following questions : $8 \times 1 = 8$

9. Compute $(10110 - 110111)_2$ using the normal method and the 2's complement method and compare the results. 4+4
10. Differentiate between Paid software, Free software and Open Source software with one example for each. Convert $(2EB1)_{16}$ into binary, octal and decimal number system. 4+4

Paper : 104.2

Group - A

Answer any *two* of the following questions : $2 \times 2 = 4$

1. Mention two real life situations where stack data structures can be used.

2. Compare the top-down and bottom-up approach of computer programming.
3. How would you reverse a list in Python?
4. To read a integer from the console we write in python: `int(input("Enter a number"))`. Here what does `int` mean?

Group - B

Answer any *two* of the following questions : $4 \times 2 = 8$

5. What is the difference between tuples and lists in Python? Give appropriate examples. $2+2$
6. Mention the advantage of continue statement with an example.
7. Write a python program to generate and print prime numbers between 2 to n.
8. How are the white and black colours represented in python?

Group - C

Answer any *one* of the following questions : $8 \times 1 = 8$

9. Explain while and for loop. Write a program to generate Fibonacci series up to the given limit by defining FIBONACCI(n) function. $4+4$

P.T.O.

10. Suppose a text file contains two lines, each line contains 20 numbers separated by space. Write a python program to read the file and take the two lines into two arrays X and Y and then plot X versus Y in a 2d plot.
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