

**Vidya Vikas Mandal's**  
**Shree Damodar College of Commerce & Economics, Margao-Goa**  
**FY B.Voc (ST), Semester-I, Supplementary Examination June 2023**  
**Fundamentals of Computers & Programming (STG101)**

**Duration: 2hrs****Max Marks: 60****Instructions:**

- 1) All Questions are Compulsory
- 2) Start each question on fresh page.
- 3) Figures to the right indicate maximum marks.
- 4) Draw a neat diagram wherever necessary

**Q.1. Answer Any 5 of the Following.****(5 X 2 = 10 Marks)**

- a) Define the term Algorithm with example.
- b) Find decimal equivalent for number  $(19FDE)_{16}$ .
- c) State the difference between Data v/s Information.
- d) List some emerging technologies in IT.
- e) Represent an algorithm to check whether a number is divisible by 5.
- f) Explain different types of programming languages.
- g) Differentiate between compilers and interpreters.

**Q.2. Answer Any 5 of the Following.****(5 X 2 = 10 Marks)**

- a) Find Octal equivalent for number  $(133)_{10}$ .
- b) Show Binary Subtraction of  $(1010110)_2$  and  $(101010)_2$ .
- c) Discuss why RAM is called Volatile Memory.
- d) Explain AC and MAR registers.
- e) Describe ROM in brief.
- f) Describe Operating System with examples.
- g) Explain in brief Memory Management.

**Q.3. Answer the Following.****(2 X 5 = 10 Marks)**

- A) Define Software. List and Explain different types of software's (5)
- B) Describe the errors and explain types of errors in programming. (5)

**OR**

- C) Explain in detail different data types in programming languages (5)

**Q.4. Answer the Following. .**

**(2 X 5 = 10 Marks)**

- A) Explain Von Neumann Architecture with the help of a neat diagram (5)
- B) Trace a flowchart and write an algorithm to find area and perimeter of a rectangle (5)

**OR**

- C) Trace a flowchart and write an algorithm to calculate the Largest of three numbers. (5)

**Q.5. Answer the Following.**

**(2 X 5 = 10 Marks)**

- A) Find binary equivalent for  $(265)_{10}$  and  $(125)_{10}$  and Perform Binary addition. (5)
- B) Describe System Call and explain its different types. (5)

**OR**

- C) Explain File Access Methods in Operating System and give different ways to access a file into a computer system. (5)

**Q.6. Answer the Following.**

**(2 X 5 = 10 Marks)**

- A) Explain with the help of neat diagram bus interconnection structure (5)
- B) Differentiate between Operating System and Kernel. (5)

**OR**

- C) Explain LOOK Scheduling with an example. (5)