

Vidya Vikas Mandal's
Shree Damodar College of Commerce & Economics, Margao-Goa
FY B.Voc (ST), Semester-I, Semester End Examination November 2022
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) List examples of people's job roles in IT.
- b) List any two examples of data that can get converted to meaningful information.
- c) Define the term Flowchart with example.
- d) Find decimal equivalent for number $(4321)_8$.
- e) Describe good features of a program
- f) Differentiate between Loaders and Linkers
- g) Represent an algorithm to find average of three numbers

Q.2. Answer Any 5 of the Following.

(5 x 2 = 10 Marks)

- a) Find 2's complement of $(1101011)_2$.
- b) Show Binary Multiplication of $(1100)_2$ and $(1111)_2$
- c) Describe cache memory in brief
- d) Explain CIR and MDR registers.
- e) Describe RAM in brief.
- f) List important functions of Operating System.
- g) Explain in brief File Management.

Q.3. Answer the Following.

(2 X 5 = 10 Marks)

- A) List and Explain in detail different components of IT. **(5)**
- B) Explain benefits and Limitations of Flowcharts. **(5)**

OR

- C) Explain in detail different types of blocks used in programming languages. **(5)**

Q.4. Answer the Following.

(2 X 5 = 10 Marks)

- A) Explain Harvard Architecture with the help of a neat diagram (5)
- A) Trace a flowchart and write an algorithm to find whether a number is even or odd (5)

OR

- B) Trace a flowchart and write pseudocode to find factorial of a number. (5)

Q.5. Answer the Following.

(2 X 5 = 10 Marks)

- A) Show Binary Division of $(1111100)_2$ and $(10)_2$ (5)
- B) Explain in detail distributed Operating System (5)

OR

- C) Explain various directory structures in Operating (5)

Q.6. Answer the Following.

(2 X 5 = 10 Marks)

- A) Explain in detail various classes of interrupt (5)
- B) Explain Real time Operating system in detail along with its types. (5)

OR

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