

Vidya Vikas Mandal's
Shree Damodar College of Commerce & Economics, Margao-Goa
FYBCA Semester I Repeat Examination November 2023
Problem Solving and Programming Concepts (CAC-104)

Duration : 2 Hours

Marks : 60

*Instructions: 1) Figures to the right indicate Full Marks.
2) All Questions are compulsory.*

Q.1A State whether the following statements are true or false. 5X1=05

- a) An algorithm begins with start and ends with stop.
- b) Rectangle symbol is used in a flowchart.
- c) A loop is a sequence of instructions that is continually repeated until a certain condition is reached.
- d) While loop is the loop that executes at least once.
- e) `strrev` is a string function.

Q.1.B Match the following and rewrite the matched pairs 5x1=05

- | | |
|--|--|
| a) Loop | A. Value at operator |
| b) Preprocessor Directive | B. <code>#include <conio.h></code> |
| c) Less than equal to (<code><=</code>) | C. Do-while |
| d) * (asterisk) | D. If statement |
| e) Decision Control | E. Relational operator |

Q.2 Answer the following :

- A) List out any two arithmetic operators mentioning their use. (2)
- B) Mention two points of difference between Compiler and Interpreter. (3)
- C) Explain with the help of an example how a variable and constant are different. (5)

Q.3. Answer the following :

- A) Explain run-time error with the help of an example. (2)
- B) List the six steps in problem solving. (3)
- C) Write an algorithm to find whether a number is positive or negative. (5)

Q.4. Answer the following :

- A) What is the use of a Flowchart? (2)
- B) Draw a flowchart to find the average of three numbers given by the user. (3)
- C) Explain three benefits of using functions with an example. (5)

Q.5 Answer the following:

- A) Write an algorithm to remove a gift box , kept in a car , which is locked by keys. (2)
- B) Find any three errors in the following program : (3)

```
#include<stdio.h>
void main()
{
int p,q;
q=0
print("Enter value for p );
scanf("%d",p);
}
```

- C) Elaborate on the use of a for loop with an example. (5)

Q.6 Answer the following:

- A) Give an example for a single line comment. (2)
- B) What will be printed at Index 0 and Index 4 for the below given array ? (3)

45	6	77	9	12
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- C) Explain the working of Call By Reference method of functions with an example. (5)