

NRT/KS/19/2185

Bachelor of Science (B.Sc.) Semester-VI Examination
PROGRAMMING IN "C"
Optional Paper—1
(Electronics)

Time : Three Hours]

[Maximum Marks : 50

N.B. :— (1) All questions are compulsory and carry equal marks.
(2) Draw well labelled diagrams wherever necessary.

EITHER

1. (A) What are identifiers ? What are the rules for naming identifiers ? Explain with examples.
What are constants ? List and explain different types of constants with examples. 5+5

OR

- (B) What are operators ? Explain difference between bitwise and logical operators.
Explain the use of format specifier and escape sequences in C. 5+5

EITHER

2. (A) What is an array ? Explain declaration and initialization of one-dimensional array. What are the advantages of using array ?
Explain switch statement with suitable programming example. 1+3+1+5

OR

- (B) What are decision making and branching statements ? Explain nested if else statement with example.
What is the use of continue statement in loops ? Differentiate between while loop and do_while loop. 2+3+2+3

EITHER

3. (A) What is a function ? What is an argument ? Differentiate between formal and actual argument.
What are built in functions ? Explain function with argument and return value with example. 1+1+3+2+3

OR

- (B) Define structure and explain how to initialize and access member of structure. Explain with example.
Explain the concept of union with suitable example. Differentiate between structures and union. 5+3+2

EITHER

4. (A) What is a file ? What are the types of files ? What are the uses of functions fseek(), fread() and fwrite() ?
What is a file pointer ? Explain how file is opened and closed by using file pointer ? 1+1+3+1+4

OR

- (B) What is pointer ? Explain pointer declaration and initialization. Explain pointer arithmetic.
What is command line argument ? Explain with suitable program. 5+5

5. Solve any **ten** :

- (A) List the separators used in C.
- (B) Explain the use of size of operator.
- (C) List all unary operators with their meaning.
- (D) Name the exit control loop used in C.
- (E) What is the use of void data type ?
- (F) What are the drawbacks of using goto statement ?
- (G) Is it possible to initialize unions ?
- (H) What is the similarity between union and enumeration ?
- (I) What are the different types of function ?
- (J) What is preprocessor directive ?
- (K) What is pointer operator ?
- (L) What is EOF ? 1×10