

POKHARA UNIVERSITY

Level: Bachelor
Programme: BE
Course: Programming in C

Semester: Fall

Year : 2019
Full Marks: 100
Pass Marks: 45
Time : 3hrs.

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

Attempt all the questions.

- a) What is programming language? Explain about low level programming language and high level programming language. 7
- b) What is the role of algorithm in programming? Write down an algorithm to check if the given number is prime or not. 8
2. a) Which of the following are invalid variable name and why? 8
- | | | | |
|---------|------------|--------------|-------|
| Minimum | First.name | Row Total | &name |
| Doubles | 3rd_row | Column-total | float |

Describe the four-basic data-types along with their size and range.

- b) What is entry controlled and exit controlled loop? Write a program to print following pattern. 7
- ```
1 2 3 4 5
1 2 3 4
1 2 3
1 2
1
```
3. a) Write a recursive program to generate the Fibonacci series up to N terms. 7
- b) What is an array? Write a program to enter values in 3x3 order matrix and compute the sum of odd elements. 8
4. a) Explain any seven functions that are related to string. 7
- b) How can we return multiple values from a function? Explain with an appropriate example. 8
5. a) What is function prototype? Write a program to pass one dimensional array to a function and display that array in that called function. 8
- b) What are function call by value and call by reference? Explain with 7

suitable examples.

6. a) What is a pointer variable? How can memory of a variable be initialized dynamically? Explain with example. 7
- b) Create a structure named Employee with structure members name, eid, address and gender. Structure need to read information for 50 employees. Write all content into the file info.dat and while retrieving, display only the information of those employee whose address is "Kathmandu". 8
7. Write short notes on: (**Any two**) 2×5
- a) Union in C
- b) Macros
- c) Get C ( ) and put C ( )