

POKHARA UNIVERSITY SERVICE COMMISSION

2073

Subject: Electronics and Communications Engineering

Full marks: 75

Post: Lecturer

Pass marks: 37.5

Time: 4 Hours

Attempt all questions in English.

Part: One

[40]

1. Explain the importance of structure in C programming. Write a C program using structure of booklist having data member's title, author, and cost. Enter four data and calculate total cost. 8
2. Why multiplexers are required in the digital circuits? Design a 8 to 1 multiplexer circuit and explain all steps 8
3. Differentiate between 8085 and 8086 microprocessor. Write an assembly language program using 8085 microprocessor code to multiply two number. 6
4. Explain the use of pipelining. What is a RISC Pipelining? What are the effect of RISC Pipelining? 6
5. Differentiate between amplitude and frequency modulation. Explain in detail about frequency modulation with suitable equations. 6
6. Explain the properties of ideal operational amplifier. Draw the block diagram of integrator circuit and derive its equations. 6

Part: Two

[35]

7. What are the basic contents in the electronic devices and circuits subject taught in the bachelor level? Explain the strengths and weakness in that subject. 10
8. If you have to take one period class in the introduction of digital signal processing. How do you prepare notes for that and conduct class? Explain it. 5
9. Suppose you have to prepare research proposal for image processing system. Explain all the points with suitable examples. 5
10. Suppose you have to design networking system in the Pokhara University. Explain all the steps. 10
11. Discuss the role of Pokhara University in higher level education with focus on Electronics and Communication Engineering in Nepal. 5