

**THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY**

**[AHS 1022]**

**OCTOBER 2022**

**Sub. Code: 2302**

**M. Sc. NUCLEAR MEDICINE TECHNOLOGY  
FIRST YEAR**

**(Candidates admitted from 2019-2020 onwards – Paper - II)**

**(Candidates admitted from 2020-2021 onwards – Paper - III)**

**PAPER – II & III – COMPUTERS, FUNDAMENTALS OF ELECTRICITY AND  
ELECTRONIC**

***Q. P. Code: 282302***

**Time: Three hours**

**Maximum : 100 Marks**

**Answer ALL Questions**

**I. Elaborate on:**

**(2 x 20 = 40)**

1. With the help of a neat diagram explain basic structure and operation of a computer. Explain the functions of central processing unit (CPU), control unit (CI) and arithmetic logic unit (ALU).
2. What is pulse a height analyzer and its role in nuclear medicine imaging? What is the difference between single channel analyzer (SCA) and multi-channel analyzer (MCA)?

**II. Write notes on:**

**(10 x 6 = 60)**

1. What are Input and output devices? Give 3 examples.
2. Networking in nuclear medicine.
3. Boolean algebra.
4. Different type of logical gates.
5. Full wave rectifier.
6. Function of analog to digital converter and its application in computer.
7. Bit, nibble, byte and word.
8. Different types of computer operating system.
9. SMPS power supply.
10. Fourier Transforms.

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