

Roll No.

D-3674

B. Sc. (Part II) EXAMINATION, 2020

INFORMATION TECHNOLOGY

Paper First

(Digital Circuits and Computer Hardware)

Time : Three Hours]

[Maximum Marks : 50

Note : Answer all the *five* questions. *One* question from each Unit is compulsory. All questions carry equal marks.

Unit—I

1. What is K-Map ? Explain SOP and POS with proper example.

Or

What is number system ? Explain Octal and Hexadecimal system with example.

Unit—II

2. Explain the term Flip-Flop and discuss its types.

Or

Write short notes on the following :

- (a) Half-adder
- (b) Full-adder

Unit—III

3. What is TTL ? Describe NAND circuit inTTL family.

(B-7) P. T. O.

[2]

D-3623

Or

What is multivibrator circuit ? Define monostable, astable and bistable in detail.

Unit—IV

4. Explain modes of data transfer with available types.

Or

What do you understand by addressing modes ? Explain in detail.

Unit—V

5. Explain memory management techniques briefly.

Or

Differentiate cache memory and virtual memory.

D-3674

0

(B-7)