F–5186	Sub. Code
	7BCEA2

U.G. DEGREE EXAMINATION, APRIL 2021 &

Supplementary/Improvement/Arrear Examinations

Computer Science

Allied – COMPUTER ORGANIZATION

(CBCS – 2017 onwards)

Time : 3 Hours Maximum : 60 Marks

Part A (10 × 1.5 = 15)

Answer **all** questions.

1. Convert decimal 88 to octal.
2. What is octal number system?
3. Give an example for Distributive law
4. Give an example for Associative law
5. Represent the decimal number 328 in 2's complement.
6. How do you subtract a number in 1 'complement?
7. What is Hardwired Control Unit?
8. Define Control word.
9. What are the four types of Instruction formats?
10. Expand CPU.

Part B (5 × 3 = 15)

Answer **all** questions, choosing either (a) or (b).

11. (a) Write the truth table and logical symbol of NOR gate.

Or

(b) Write the truth table and logical symbol of NAND gate.

12. (a) Define Sum of Products method.

Or

(b) List any 5 Boolean algebra functions

13. (a) What is 2's complement of numbers?

Or

(b) Perform the Addition of 1101 and 1111 using 1 complement

14. (a) Write a short notes on Micro Program.

Or

(b) Write down the steps in Instruction cycle.

15. (a) Write a brief note on One address instructions.

Or

(b) Write a note on Implied Addressing Mode.

Part C (3 × 10 = 30)

Answer any **three** questions.

16. Construct the OR gate using NAND and NOR

17. List the applications of multiplexer.

18. Subtract $(11111)_2$-$(1101)_2$ using l's complement and 2's complement method.

19. Explain Symbolic Microinstruction.

20. Explain different addressing modes with an example.

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