

Roll No.....

Total No. of Printed Pages : 4

BCA-106

B.C.A. First Year Examination, 2017

Paper-VI

(Computer Organization)

Time Allowed : Three Hours

Maximum Marks : 100

PART-A (खण्ड-अ) [Marks : 20

Answer all questions (50 words each).

All questions carry equal marks.

सभी प्रश्न अनिवार्य हैं। प्रत्येक प्रश्न का उत्तर 50 शब्दों से अधिक न हो।

सभी प्रश्नों के अंक समान हैं।

PART-B (खण्ड-ब) [Marks : 50

Answer **five** questions (250 words each), selecting **one** from each Unit. All questions carry equal marks.

प्रत्येक इकाई में से एक-एक प्रश्न चुनते हुए, कुल पाँच प्रश्न कीजिए। प्रत्येक प्रश्न का उत्तर 250 शब्दों से अधिक न हो।

सभी प्रश्नों के अंक समान हैं।

PART-C (खण्ड-स) [Marks : 30

Answer any **two** questions (300 words each).

All questions carry equal marks.

कोई दो प्रश्न कीजिए। प्रत्येक प्रश्न का उत्तर 300 शब्दों से अधिक न हो।
सभी प्रश्नों के अंक समान हैं।

PART-A

1. Answer the following questions :

- (i) What are conductors?
- (ii) How inductors work?
- (iii) What is the basic work of control unit?
- (iv) How skip, jump and branch instructions are different?
- (v) What are indexed and general purpose registers?
- (vi) Why overflow registers are required?
- (vii) What is basic work of main memory?
- (viii) Why virtual memory is needed?
- (ix) What are microcontrollers?
- (x) What are buses?

PART-B

UNIT-I

2. Explain transistors as a switch in detail.
3. Give short note on edge and level triggering.

UNIT - II

4. Draw the diagram of basic building blocks of computer system. Also give detailed description of control unit and its functions.
5. Explain the following :
 - (a) I/O
 - (b) Memory
 - (c) ALU.

UNIT - III

6. Explain paging in detail.
7. What are accumulators, carry registers and stack pointers?

UNIT - IV

8. What is main memory? Give details of static RAM and dynamic RAM?
9. Explain ROM, EPROM and EEPROM in detail.

UNIT - V

10. Explain auxiliary storage devices and printers.
11. What is the difference between microprocessors and microcontrollers?

PART-C

12. Explain the following in detail :
 - (a) Diodes
 - (b) Transistors.
13. What is instruction? Explain instruction execution cycle in detail.
14. Elaborate different addressing techniques by giving an example of each.
15. What is Cache Memory? Explain the need of Cache Memory in detail.
16. Write short notes on the following :
 - (a) Address bus
 - (b) Data bus
 - (c) Control bus.
