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# B.C.A. DEGREE (C.B.C.S.S.) EXAMINATION, MARCH 2019

## **Fourth Semester**

# MICROPROCESSOR AND PC HARDWARE

[2013 to 2016 Admissions]

Time: Three Hours

Maximum Marks: 80

#### Part A

Answer all questions.

Each question carries 1 mark.

- 1. What is a register?
- 2. Define Microprocessors.
- 3. What is a bus?
- 4. What is an assembler?
- 5. What are the parts of a microprocessor?
- 6. Expand USB.
- 7. What is a motherboard?
- 8. What is the function of program Counter?
- 9. Distinguish between RAM and ROM.
- 10. What is an interrupt?

 $(10 \times 1 = 10)$ 

### Part B

Answer any **eight** questions. Each question carries 2 marks.

- 11. What do you mean by instruction cycle?
- 12. Write notes on AGP.
- 13. What is upper memory area?
- 14. What do you mean by bus cycle?
- 15. What are the different types of buses?
- 16. Write notes on ROM BIOS.
- 17. What is FAT disk?
- 18. What are the flags used in 8085?
- 19. Write the instruction format of 8085 microprocessor.

- 20. Write any four logical instructions.
- 21. What is the difference between static and dynamic memory?
- 22. Discuss expanded memory.

 $(8 \times 2 = 16)$ 

#### Part C

Answer any six questions. Each question carries 4 marks.

- 23. What are the components of a motherboard?
- 24. Explain the addressing modes used in 8085.
- 25. What are the different operating modes of 8086 microprocessor?
- 26. Write short notes on NTFS.
- 27. Explain the features of extended memory.
- 28. Discuss super I/O chip.
- 29. What are the registers used in 8086, microprocessor?
- 30. Explain the functions of VFAT disk.
- 31. What is a timing diagram? Draw a timing diagram and explain.

 $(6 \times 4 = 24)$ 

#### Part D

Answer any **two** questions. Each question carries 15 marks.

- 32. Draw the pin-out diagram of 8086 microprocessor and explain.
- 33. Explain the features and components of a hard disk.
- 34. Explain the arithmetic and data transfer instructions in 8085 microprocessor.
- 35. (a) What is physical memory? Explain.
  - (b) Briefly explain the memory modules SIMMs, DIMMs and RIMMs.

 $(2\times15=30)$