

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
(For Candidates admitted during the academic year 2011-12 and thereafter)

SUBJECT CODE: 11CS/MC/CN34

B.C.A. DEGREE EXAMINATION – NOVEMBER 2015
THIRD SEMESTER

REG. NO. _____

COURSE : MAJOR CORE

PAPER : COMPUTER ORGANIZATION AND NETWORK FUNDAMENTALS

TIME : 30 MINUTES

MAX. MARKS: 20

SECTION – A

ANSWER ON THE QUESTION PAPER ITSELF

Answer all the questions:

20*1=20

Choose the correct answer:

1. There is _____ for Input Y to generate its complement Y'
 - a. And
 - b. inverter
 - c. OR
 - d. And, OR
2. _____ is a primary memory.
 - a. RAM
 - b. ROM
 - c. Disks
 - d. None
3. The output of OR gate is 1 if inputs are_____.
 - a. 0
 - b. 1
 - c. both
 - d. None
4. A 32-bit word computer memory is made up of _____.
 - a. 8byte
 - b. 2 byte
 - c. 4 byte
 - d. 32 byte
5. (F3) base 16=(?) base 10
 - a. 234
 - b. 324
 - c. 243
 - d. 233
6. _____ instructions use an implied accumulator.
 - a. Three address
 - b. zero address
 - c. Two address
 - d. One address.
7. The program that accepts source program and produces object program is called _____.
 - a. Linker
 - b. Compiler
 - c. Interpreter
 - d. Assembler.

8. _____ transfer needs control signal to be transmitted between the communicating units.
- a. Asynchronous data b. DMA c. Direct d. I/O
9. An address in main memory is called _____.
- a. Logical address b. Virtual address
c. Physical address d. address space.
10. _____ is needed for storing bootstrap loader.
- a. ROM b. RAM c. Cache d. all

Fill in the blanks:

11. The result of operation (+6-13) using signed two's complement is _____.
12. PROM means _____.
13. The instruction format has _____, _____ and _____ fields.
14. $(x')'$ = _____.
15. Input, output devices attached to the computers are called _____.
16. In _____ more than two specific devices share a single link.
17. ARPA stands for _____.
18. In a star topology the central controller is called _____.
19. _____ is a sub tree of domain name space.
20. In _____ transmission bits are transmitted continuously.

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TIME : 2 HOURS & 30 MINUTES **MAX. MARKS: 80**

SECTION-B

Answer ALL the questions:

5*2=10

1. Write a short note on compiler.
2. Define Exclusive-NOR.
3. State baud rate.
4. Draw block diagram of ROM.
5. Differentiate analog and digital signal.

SECTION-C

Answer any EIGHT questions:

8*5=40

6. Differentiate RISC and CISC.
7. Brief on assembly and high level language.
8. Write a note on different output devices.
9. Explain about memory representation.
10. Explain about different logical gates.
11. (a) Convert F3A7C2 to binary and octal
(b) Convert 1938 to hexadecimal
12. Explain in detail about mapping in virtual memory.
13. With block diagram, explain Asynchronous Communication Interface.
14. With diagram explain star and mesh topology.
15. Discuss on local area network.

SECTION-D

Answer any THREE questions:

3*10=30

16. Explain about assembler and Linker.
17. Give clear sketch about computer memory.
18. Explain about various instruction formats and different addressing modes.
19. Discuss on Direct Memory Access.
20. Discuss on various connecting devices used for networking.
