STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI - 600 086
(For candidates admitted during the academic year 2015 – 16 and thereafter)

SUBJECT CODE: 15CS/MC/CC24

B. C. A. DEGREE EXAMINATION, APRIL 2019
SECOND SEMESTER

COURSE : MAJOR CORE
PAPER : COMPUTER CONCEPTS
TIME : 3 HOURS **MAX. MARKS: 100**

SECTION A

ANSWER ALL QUESTIONS: **(20 X 1 = 20)**

Choose the best answer:

1. The first computer was programmed using _____.
   a) Assembly language b) Source code
   c) Machine language d) Object code

2. _____ translates and executes program at run time line by line
   a) Interpreter b) Linker c) Compiler d) Loader

3. Storage which stores or retains data after power off is called _____
   a) Volatile storage b) Sequential storage
   c) Non-volatile storage d) Direct storage

4. The time taken for the read/write head to move to the correct track on the magnetic disk is called _____
   a) epoch delay b) seek time c) latency delay d) approach time

5. The universal gate is _____
   a) NAND gate b) AND gate c) OR gate d) None of the mentioned

6. 2's complement of binary number 0101 is _____
   a)1110 b) 1101 c) 1111 d) 1011

7. Which of the following is a data transfer instruction?
   a) STA 16-bit address b) MUL C, D c) ADD A, B d) RET

8. The addressing mode, where you directly specify the operand value is _____.
   a) Definite b) Immediate c) Direct d) Relative

9. Which of the following medium does not come under the guided media?
   a) Optical Fibres b) Coaxial cable c) Microwave d) Twisted Pair

10. A _____ is a set of rules that enables a user to transfer files from one system to another
    a) E-mail b) FTP c) Telnet d) Internet Relay Chat

Fill in the blanks:

11. A system software that combines one or more object files from assembler as input and forms an executable file as output is _____
12 The basic component of first-generation computer was _____
13. _____ bytes represent a kilo byte.
14. A connection point that acts as an interface between the computer and external devices like mouse, printer, modem, etc. is called _____
15. The binary number 10101 is equivalent to decimal number _____

...2

16. When an input signal 1 is applied to a NOT gate, the output is _____
17. In register addressing mode, the register holds the _____
18. Data _____ instructions perform arithmetic, logic, and shift operations on data.
19. A computer on a network that requests files from another computer is known as _____.
20. Expand ISP: _____

SECTION B

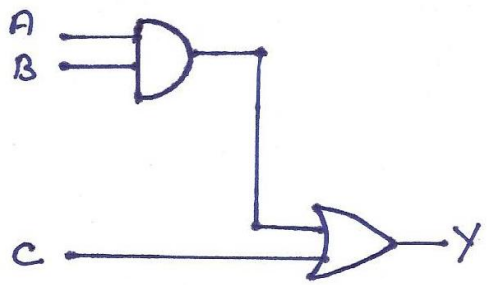
ANSWER ALL THE QUESTIONS: (5 X 2 = 10)

21. Differentiate between analog and digital computers.
22. What are the two methods of accessing data from the secondary storage devices?
23. State the associative property of Boolean algebra.
24. What is a program control instruction?
25. What is a Web server?

SECTION C

ANSWER ANY EIGHT OF THE FOLLOWING QUESTIONS: (8 X 5 = 40)

26. Explain control unit of CPU.
27. Write short notes on Fetch cycle and Execution Cycles needed for processing one single instruction.
28. Explain the principle and construction of optical disk
29. What are pointing devices? Discuss any two pointing devices.
30. For the logic circuit shown below, obtain the logic expression for the output and form the truth table



31. Explain Fixed Point Number representation with examples. Bring out the advantages and disadvantages of this representation
32. List the major characteristics of RISC architecture.

33. What are the common fields found in a general instruction format? Write a program to show how X = (A + B) ∗ (C + D) will be written for a stack organized computer.
34. Explain briefly the various types of Computer Networks.
35. What are the services provided by the Internet?

SECTION D

ANSWER ANY THREE OF THE FOLLOWING QUESTIONS: (3 X 10 = 30)

36. Explain how computers are classified based on their size.
37. Briefly explain any four Source Data Entry Devices.
38. Explain with an example K-map method of solving expressions.
39. What are the various Addressing modes? Explain each of them with examples.
40. Explain the various LAN topologies. Bring out their advantages and disadvantages.

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