

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 2013
THIRD SEMESTER

REG. NO. _____

COURSE : MAJOR CORE

PAPER : COMPUTER ORGANIZATION AND NETWORK FUNDAMENTALS

TIME : 20 MINUTES

MAX. MARKS: 20

SECTION – A
ANSWER ON THE QUESTION PAPER ITSELF

Answer all the questions:

20*1=20

Choose the correct answer :

- 1) The instruction field specify a _____.
(a) pseudoinstruction (b) memory-reference instruction
(c) register-reference instruction (d) all.
- 2) Programs may be written using _____.
(a) Binary code (b) octal (c) High Level (d) all.
- 3) 1024×8 memory is constructed with _____.
(a) 128×8 RAM (b) 512×8 ROM (c) both (d) none.
- 4) Arrange the memory in terms of processing speed.
(a) RAM (b) cache (c) Disk (d) Registers.
- 5) The decimal equivalent of hexadecimal F3 is _____.
(a) 153 (b) 240 (c) 155 (d) none.
- 6) The CPU organizations can be _____.
(a) Single accumulator (b) General register (c) Stack (d) all.
- 7) A _____ command is used to activate the peripheral.
(a) I/O (b) Control (c) status (d) none.
- 8) RAM chips operate in _____.
(a) static (b) dynamic (c) both (d) none.
- 9) LAN applies _____ topology.
(a) tree (b) mesh (c) both (d) none.

- 10) A digital data is represented as _____.
(a) continuous (b) discrete (c) both (d) none.

Fill in the blanks :

- 11) An _____ converts program written in symbolic code to binary.
- 12) _____ is a program which starts when computer is switched on.
- 13) _____ is an example for pointing Devices.
- 14) Control word specifies _____.
- 15) Universal gates are _____ and _____.
- 16) The address space of cpu with 16 processor register is _____ bits.
- 17) _____ method is useful in low speed computers.
- 18) Associative memory can be referred as _____.
- 19) Incompatible networks are connected by machines called as _____.
- 20) DNS stands for _____.

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TIME : 2 HOURS & 40 MINUTES **MAX. MARKS: 80**

SECTION-B

Answer ALL the questions: **5*2=10**

- 1) What is an Interpreter?
- 2) Write about optical Disks.
- 3) What are Three- address Instructions? Write an advantage.
- 4) What are memory mapped I/O?
- 5) Differentiate the function of active hub from passive hub.

SECTION-C

Answer any EIGHT questions: **8*5=40**

- 6) Compare the characteristics of RISC and CISC.
- 7) What is an Instruction Cycle? Explain its phases for an instruction.
- 8) Write notes on Auxiliary Memory.
- 9) Compare any three types of printers.
- 10) Convert the following :
 - (a) $(736.4)_8$ into decimal.
 - (b) $(41.6875)_{10}$ into binary.
 - (c) $X = 1010100$, $Y = 1000011$, $X-Y = ?$
 - (d) $(1010000001100011)_2$ to Hexadecimal.
 - (e) $(101101)_2$ to decimal.
- 11) Explain any five data transfer instructions with example for each.
- 12) Explain Direct Memory Access.
- 13) Write notes on Associative Memory.
- 14) Compare the types of networks.
- 15) Write about Bridges and Routers.

SECTION-D

Answer any THREE questions: **3*10=30**

- 16) Explain the role of an assembler during translation process.
- 17) Discuss in detail about mapping process in cache memory.
- 18) Explain the purpose of addressing modes and its types.
- 19) Explain Asynchronous Data transfer.
- 20) Describe any five network Topologies.
