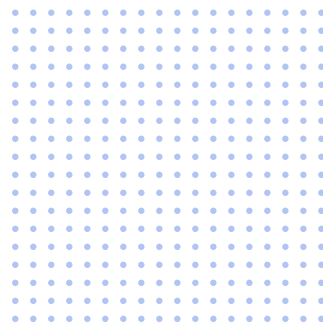




FOR MAHARASHTRA BOARD (MSBSHSE) CLASS 12 EXAM PREPARATION

Maharashtra Board (MSBSHSE) Class 12 2026 Question Paper · Computer Science Paper 2

EXAM

Maharashtra Board (MSBSHSE) Class 12

YEAR

2026

TYPE

Question Paper

SUBJECT

Computer Science Paper 2

DAY - 22

SEAT NUMBER

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2026	III	10	1100	V - 768	(E)
COMPUTER SCIENCE PAPER - II (D-9)					
Time : 3 Hours		4 Pages		Max. Marks : 50	

- Instructions :**
- (1) All questions are compulsory.
 - (2) Figures to the right indicate full marks.
 - (3) Use of any type of calculator is not allowed.
 - (4) Draw a neat and labelled diagram wherever necessary.

1. (A) Select correct alternative and rewrite the following :
 - (a) In Intel 8085 Microprocessor, ALE signal is made high to _____. 1
 - (i) enable $AD_0 - AD_7$ bus to be used as lower order address bus.
 - (ii) enable $A_8 - A_{15}$ bus to be used as lower order data bus.
 - (iii) to halt the processor
 - (iv) to reset the microprocessor
 - (b) Which flag not gets affected after execution of INR M ? _____. 1
 - (i) Carry
 - (ii) Sign .
 - (iii) Auxiliary
 - (iv) Parity
 - (c) The _____ is not a characteristic feature of 8051 microcontroller. 1
 - (i) 4 K byte of internal RAM
 - (ii) 4 K byte of internal ROM
 - (iii) 4 parallel bi-directional I/O port
 - (iv) full featured serial port

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[P.T.O.]

(d) All the systems on network must follow a set of common rules, called as _____.

1

- (i) interface
- (ii) contention
- (iii) token passing
- (iv) protocol

(B) Answer any two of the following :

- (a) Differentiate between Maskable and Non-maskable interrupts. (Any three points) 3
- (b) What is Microcontroller ? Write any four applications of Microcontroller. 3
- (c) Write any three attributes of Pentium Processor. 3

2. (A) Answer any two of the following :

- (a) Write purpose of following pins of 8085 Microprocessor : 3
 - (i) TRAP
 - (ii) $\overline{IO/\overline{M}}$
 - (iii) HLDA
- (b) Write three primary functions of CPU of Microcomputer. 3
- (c) Write any six features of 8051 Microcontroller. 3

(B) Answer any one of the following :

- (a) Write procedure of DAA instruction to convert hexadecimal number in to Binary Coded Decimal (BCD) number with suitable example. 4
- (b) Draw labelled diagram of programming model for Pentium Processor. 4

3. (A) Answer any two of the following :

- (a) State any three addressing modes of 8085 Microprocessor with one example each. 3
- (b) What do you mean by Branch Instruction ? List any four conditional jump instruction. 3
- (c) What is Wireless Media ? Write any two advantages of Wireless Media. 3

SEAT NUMBER

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(B) Answer any one of the following :

(a) Define the following terms with suitable diagram :

4

(i) T State

(ii) Machine Cycle

(iii) Instruction Cycle

(b) What is Hub ? Explain three types of Hub.

4

4. (A) Answer any two of the following

(a) Compare the characteristics of Fiber-Optic and Co-axial Cable. Mention at least three points.

3

(b) What is Transmission Media ? List characteristic of Transmission Media.

3

(c) Draw labelled diagram of programming model of 8085 Microprocessor.

3

(B) Answer any one of the following :

(a) Define RING topology with diagram. State its two advantages and disadvantages.

4

(b) The Accumulator of 8085 Microprocessor contains data 89 H. The register D contains data 58H. What will be content of Accumulator in hexadecimal after execution of each of the following instruction dependently (Stepwise i.e. one after another) :

4

(i) ADD D

(ii) DAA

(iii) CMA

(iv) SUI B8H

5. Answer any two of the following :

(a) Write an assembly language program that multiply two 8 bit hex numbers stored in memory locations 9404H and 9405H. Store the two byte result in consecutive memory locations 9606H beginning with lower order byte.

5

(b) A block of data is stored in memory locations from 8400H. The length of the block is stored in 73FFH. Another block of same length is stored from 8500H. Write an assembly language program to exchange the contents of these two blocks.

5

- (c) Write an assembly language program to separate nibbles of a number stored in memory location 7503H and store the separated nibbles in memory location 7504H and 7505H. 5

OR

5. Answer any two of the following :

- (a) Two 16 bit numbers are stored in consecutive memory locations beginning with lower order byte A200H and B200H respectively. Add these two numbers and store three byte result starting from memory location C200H. 5
- (b) Write an assembly language program to fill the memory block of 16 memory locations starting from C200H with data byte 22H and 33H every alternate memory locations. 5
- (c) Write an assembly language program to find smallest number in block which begins from memory location E200H to E210H. Store the result in accumulator. 5

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