

# COMPUTER ARCHITECTURE CSA1264

## MODEL PRACTICAL EXAMINATION

### REG NO: 192511083

## 1. 1's COMPLEMENT

The screenshot displays the GNUSim8085 - 8085 Microprocessor Simulator interface. The main window shows the assembly code being executed:

```
Load me at  
1 LDA 8000  
2 CMA  
3 STA 8001  
4 HLT
```

The Registers window on the left shows the following values:

Register	Value
A	F9
BC	00 00
DE	00 0A
HL	0A 00
PSW	00 00
PC	42 08
SP	FF FF
Int-Reg	00

The Flag window on the right shows the following values:

Flag	Value
S	0
Z	1
AC	0
P	1
C	0

The Memory window on the right shows the memory dump starting at address 8000:

Address (Hex)	Address	Data
1F40	8000	6
1F41	8001	249
1F42	8002	0
1F43	8003	0
1F44	8004	0
1F45	8005	0
1F46	8006	0
1F47	8007	0
1F48	8008	0
1F49	8009	0
1F4A	8010	0
1F4B	8011	0
1F4C	8012	0
1F4D	8013	0

The I/O Ports window shows the current port value as 00.

The Memory window shows the current memory address as 00.

The Assembler Message window at the bottom right shows the message: "Program assembled successfully".

The status bar at the bottom indicates the simulator is idle, the temperature is 30°C, and the date is 09-02-2026.

## 2. MULTIPLICATION OF TWO 8-BIT DATA

GNUSim8085 - 8085 Microprocessor Simulator

File Reset Assembler Debug Help

Registers

Register	Value
A	00
BC	00 00
DE	00 0A
HL	0A 00
PSW	00 00
PC	42 16
SP	FF FF
Int-Reg	00

Flag

Flag	Value
S	0
Z	1
AC	0
P	1
C	0

Load me at:

```
1 LDA 2200
2 MOV E,A
3 MVI D,00
4 LDA 2201
5 MOV C,A
6 LXT H,0000
7 BACK: DAD D
8 DCR C
9 JNZ BACK
10 SHLD 2202
11 HLT
```

Decimal - Hex Conversion

Decimal: 0 Hex: 0

To Hex To Dec

I/O Ports

0 - + 00

Update Port Value

Memory

0 - + 00

Update Memory

Data Stack KeyPad Memory I/O Ports

Start: 2050 OK

Address (Hex)	Address	Data
0802	2050	10
0803	2051	0
0804	2052	5
0805	2053	0
0806	2054	50
0807	2055	5
0808	2056	0
0809	2057	0
080A	2058	0
080B	2059	0
080C	2060	0
080D	2061	0
080E	2062	0
080F	2063	0

Line No Assembler Message

0 Program assembled successfully

Simulator: Idle

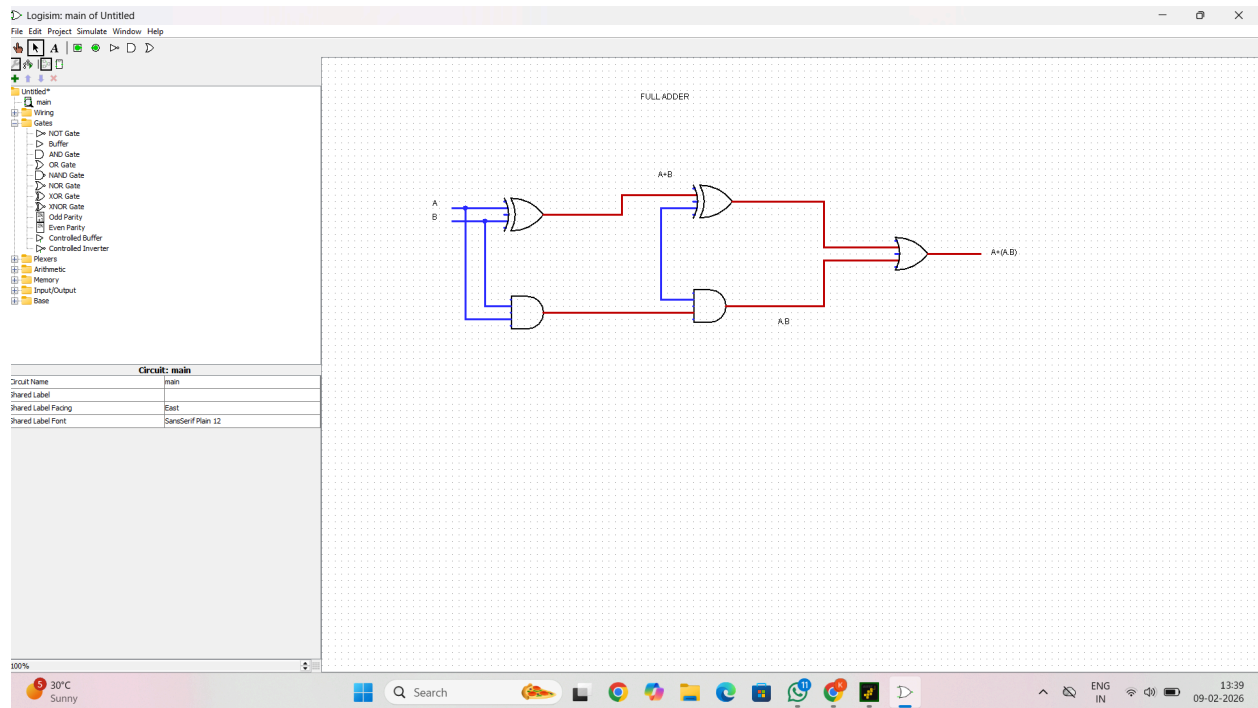
30°C Sunny

Search

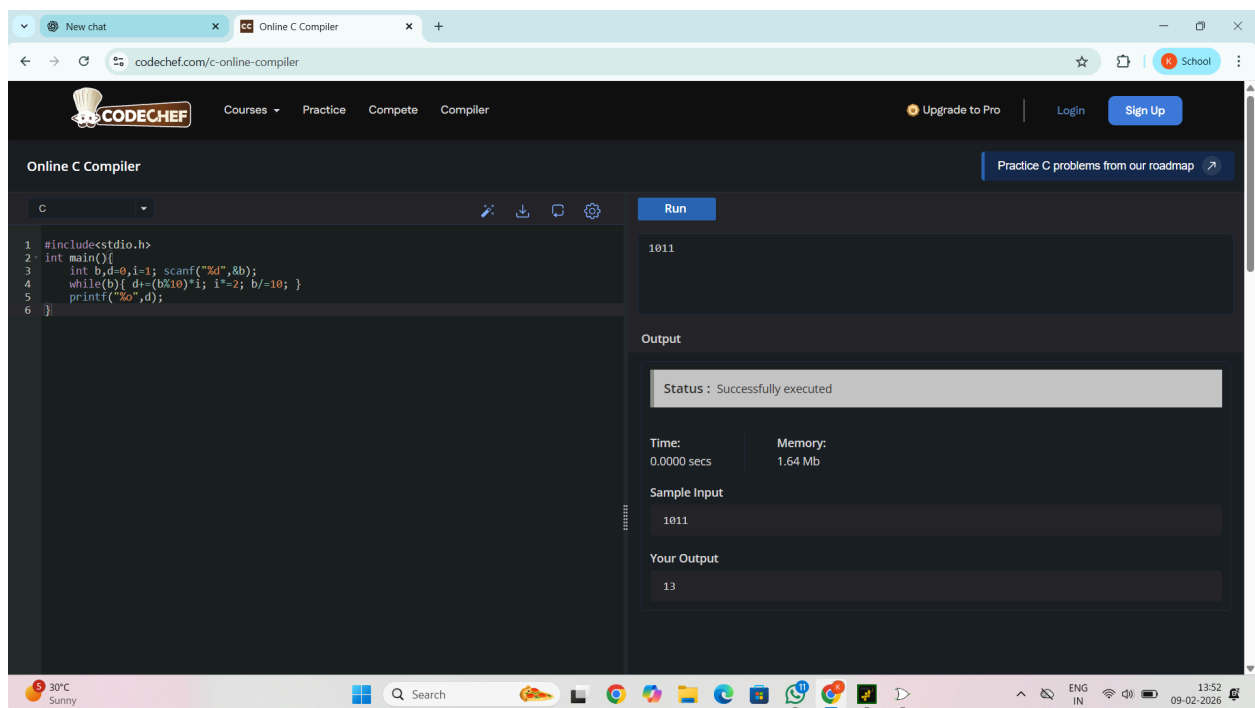
ENG IN

13:44 09-02-2026

### 3. FULL ADDER



## 4. CONVERT BINARY TO OCTAL



The screenshot displays the CodeChef Online C Compiler interface. The code editor on the left contains the following C program:

```
1 #include<stdio.h>
2 int main(){
3     int b,d=0,i=1; scanf("%d",&b);
4     while(b){ d+=(b%10)*i; i*=2; b/=10; }
5     printf("%o",d);
6 }
```

The program takes a binary number as input and prints its octal equivalent. The output section on the right shows the execution results:

1011

Output

Status : Successfully executed

Time: 0.0000 secs      Memory: 1.64 Mb

Sample Input

1011

Your Output

13

The interface also includes a navigation bar with links to Courses, Practice, Compete, and Compiler, along with options to Upgrade to Pro, Login, and Sign Up. The bottom of the screen shows the Windows taskbar with the date 09-02-2026 and time 13:52.