

CS401 – Assembly Language
Vu Helping Hands
Made By
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1. Stack is a data structure that behaves in a First in Last manner.
Out (Handsout searching Page 67)
2. We can convert a digit into its ASCII representation by adding to it.
0x30 (Page 80)
3. _____ decrements SP (the stack pointer) by two and then transfers a word from the source operand to the top of stack?
Or _____ function decrements SP (the stack pointer) by two and then transfers a word from the source operand to the top of stack now pointed to by SP.
Push (page 71)
4. The ____ flag has a special role in debugging.
trap (Page 17)
5. iAPX88 stands for:
Intel Advanced Processor Extensions 88 (Page 14)
6. In _____ every bit moves one position to the right and the bit dropped from the right is inserted at the left. This bit is also copied into the carry flag.
Rotate Right (ROR) (Page 53)
7. Which of the following registers hold the address of data in Intel Boss?

BX, BP, SI and DI (page 30)

8. Which of the following is the general form of addressing?

Base + Index + Offset (page 35)

9. All mathematical and logical operations are performed on the:

Accumulator (page 12)

10. Which of the following register is used to hold the address of the next instruction to be executed?

Program Counter (page 13)

11. Which of the following is a program control instruction?

jne 0534 (page 14)

12. The basic function of register is to hold-----.

Oparands

13. A 16-bit processor has an accumulator of:

16 bit (Page 12)

14. REPE and REPNE prefixes are only meaningful with-----.

CMPS (page 93)

15. Stack is a data structure that behaves in -----manner.

LIFO

Note: Stack two manner pr behave krta hy first FILO or second LIFO.
Handsout mai LIFO Nhi hy magr iss ka correct answer LIFO hy.

16. Which of the following bit is dropped into the carry flag after the execution of “Shift Logical Right” operation?

Right most bit (page 52)

17. How logical errors are different from syntax error?

Identifying syntax and logical errors is the responsibility of assembler and programmer respectively.

18. In ___operation, the output is 1 only if both inputs are 1.
AND

19. How jmp is different from jnz?
jmp is an unconditional jump, however jnz is a conditional jump

20. In Shift Logical Left (SHL), the _____ bit is dropped into the carry flag.
most significant (page 52)

21. In STOS, the implied source operand always resides in -----.
AL or AX (page 92)

22. Which of the following is an illegal assembly instruction?
mov [num1], [num2] (page 30)

23. sub sp, 2
The above instruction is used to perform a _____operation on stack.
PUSH (page 75, 76)

24. The maximum amount of memory accessible using 8085 processor is _____.
64 KB (page 15)

25. In direct addressing, the memory address given in the instruction is_____
fixed (page 28)

26. What makes CMP different from SUB?

SUB is a destructive subtraction while CMP is a non-destructive subtraction. Both affect the flags.

27. Which of the following are the basic bitwise logical operations?
AND, OR, XOR, and NOT (page 58)
28. To convert the case of character, we add or subtract ____ from
it its ASCII code
0x20 (page 80)
29. When the RET instruction is executed, it recovers the value of
the____ from the stack.
instruction pointer (page 68)
30. When the relative address stored with the instruction is in 16
bits, the jump is called a _____ jump.
Near (page 45)
31. Registers are storage cells _____.
inside the processor (page 11)
32. _____ subtracts one from the operand.
DEC (page 55)
33. STI stands for?
Set the Interrupt flag
34. RET instruction takes _____ arguments(s).
0 (page 64)
35. A symbol associated to a point in the program is called a ____.
Or A symbol associated to an instruction in the program is known
as:
Label (page 25)

36. In 8088, there is a _____ stack.
decrementing (page 68)
37. CX register is mostly used as a _____ register.
Counter (page 32)
38. There are _____ byte(s) for each character on the screen.
2 (page 87)
39. Whenever an instruction needs a memory source, holds the pointer to it.
DS:SI (page 91)
40. Keeping in view the downward compatible between the two systems, the codes written for the intel iAPX88 are _____ on the intel 386 processor.
valid (page 14)
41. In multiplication algorithm, We take the first digit of the multiplier and multiply it with the _____.
multiplicand (page 51)
42. The ordering of a program's instructions is ensured by the ---- register.
Program Counter (page 13)
43. When an element is pushed on the stack, SP is decremented by,
two (page 68)
44. In iAPX88, _____ flag is specifically related to string instructions.
direction (page 17)

45. Which of following conditional jump is not dependant on any flag?
Or Which of the following jump does not depend on flags register?
JCXZ (page 43)
46. In ----- operation, a zero is inserted from the left and every bit moves one position to the right. The right most bit is dropped or down into the carry flag.
Shift Logical Right (SHR) (page 52)
47. In case of DIV BX instruction, the quotient is stored in ----- register.
AX (page 85)
48. Which of the following flags sets when a large number is subtracted from a smaller number?
CF (page 88)
49. Which of the following is the most illegal instruction?
Mov al, ax
50. In ADC instruction, there are -----.
two operands and the CF (page 57)
51. Call instruction takes a ----- as an argument.
Label (page 64)
Or Call instruction takes ----- argument(s).
1 (page 64)
52. VGA stands for_____.
Video Graphics Adapter (page 79)
53. When the control is transferred to a subroutine?
After the arguments are pushed on the stack

54. CS and IP are both-----bit registers.
16 (page 21)
55. A decrementing stack moves from ----- to -----addresses as elements are added in it.
higher, lower (page 68)
56. The most convenient place to store local variables is -----.
stack (page 75)
57. ----- can be used to check whether particular bits of a number are set or not.
AND (page 60)
58. Which of the following operations is used to set any specific bit in a binary number?
OR (page 59)
- b. Which of the following operations is used to clear any specific bit in a binary number?
AND (page 59)
59. Which bit of attribute byte represents the blue component of foreground color?
0 (page 81)
60. The segment offset pair is called a/an ----- address.
logical (page 22)
61. The extra bit produced as a result of an arithmetic operation that does not fit in the target register is stored in:
carry flag (page 16)
62. Cell width refers to the total number of bits in a memory cell while the total number of cells is called the -----.

depth (page 10)

63. Intel 8085 can access up to ----- of memory, whereas Intel 8088 can access up to ----- of memory.

64 KB, 1 MB (page 15)

64. Registers are normally part of -----.

CPU

65. The base pointer accesses local variables using ----- offsets.

negative (page 75)

66. ASCII table is the contiguous arrangement of the uppercase alphabets (41-5A), the lowercase alphabets (61-7A), and the numbers -----.

30-39 (page 80)

67. Which of the following string instructions is generally used in a loop instead of REP prefix?

LODS (page 92)

68. The correct instruction to subtract with borrow is -----.

SBB (page 57)

69. `mov [1234], ax` is an example of ----- addressing.

direct (page 35)

70. What the following piece of code does?

`Shl word [multiplicand], 1`
`Rcl word [multiplicand+2], 1`

Extended Shift left (page 58)

71. When the execution of Call instruction, the value of ----- is decremented by 2.

SP (page 66)

72. Which of the following bus is used to inform the memory that whether processor wants to read data or write data?
Control Bus (page 9)
73. In far jump,-----.
both offset and segment are given (page 46)
74. A value 0500 is stored in memory. If we transfer this value to a general-purpose register, then it will be shown as:
0005 (page 28)
75. In which of the following addressing, both registers are not constant?
Base + Index (page 36)
76. The number of ----- in a cell is called the cell width.
Bits (page 10)
77. In extended multiplication, we store the multiplicand in ----- bits, and the result is stored in ----- bits.
32, 32 (page 57)
78. Synchronization between the processor and the memory for the read and write operations is done by the -----.
Control bus (page 11)
79. iAPX88 Architecture consists of:
14 Registers (page 15)
80. Shift logical Left (SHL) moves all the bits one position to the --- and inserts a zero from the -----.
left, right (page 52)

81. In MUL instruction, if the **source operand is a byte**, then it is multiplied with ----- register.
AL (page 87)
- b. In MUL instruction, if the **source operand is a word**, then it is multiplied with ----- register.
AX (page 87)
82. When the operand of DIV instruction is in 16 bits, then the implied dividend will be in -----.
DX:AX (page 85)
83. What does the PUSH operation do?
its copies the operand on the stack (page 68)
84. ----- transfers the word at the top of stack (pointed to by SP) to the destination operand and then increments SP by two.
POP (page 71)
85. Which of the following is an incorrect XOR operation?
XOR BX,AX (page 59)
86. This jump is taken if **the last arithmetic operation changed** the sign unexpectedly.
JO (page 43)
87. Which of the following jumps is taken if **the last arithmetic operation did not changed** the sign unexpectedly?
JNO (page 43)
88. Which would be the output of MOV AX, BL?
Assembler will declare that this is an illegal instruction
(page 30)
89. ----- or ----- are taken if the last arithmetic operation has produced a number in the destination that has add parity.

JNP, JNO (page 43)

90. Group of bits processor uses to inform memory which element to read/write is collectively known as:

Address bus (page 9)

91. MOVS is used to move a block of memory.

Move (page 92)

92. Stack Pointer is ----- when the ret instruction is executed.

incremented by 2 (page 68)

93. ----- instruction directs the flow of program.

Program Control (page 14)

94. Which of the following instructions allows memory to memory movement of data?

MOVS (page 91)

95. By default, IP is associated with -----.

CS (page 34)

96. After the execution of Shift Arithmetic Right instruction, the most significant bit -----.

retains its original value (page 52)

97. In case of DIV BX instruction, the quotient is stored in ----- register.

AX (page 85)

98. Which part of B80500 (encoded instruction) is an opcode?

B8 (page 25)

99. The operand of ----- is called the source operand because the data moves to the stack from the operand.

PUSH (page 71)

100. Which of the following jump is taken if the last arithmetic operation has produced a number in its destination that has even parity?

JPE (page 43)

101. When there is a 16 bit operand with the DIV instruction, then the implied dividend will be in ----- bits.

32 (page 85)

102. EBCDIC, grey code and ASCII are the standards for ----- representation of characters.

alpha-numeric

103. In -----, a zero is inserted from the right and every bit moves one position to its left with the most significant bit dropped into the carry flag.

both SHL and SAL (page 52)

104. Conditional jumps can only be -----.

Short (page 46)

105. BP stands for ----- pointer.

Base (page 16)

106. In video memory, each screen location corresponds to ---bytes.

2 (page 82)

107. What makes CMP different from SUB?

SUB is a destructive subtraction while CMP is a non-destructive subtraction. Both affect the flags.

108. Which of the following registers is used as a counter?

CX (page 15)

109. The memory on video controller is accessible to the processor by ----- bus.

System (page 80)

110. Which of the following addressing scheme has been used in the instruction MOV [BX], AX?

Based Register Indirect (page 35)

111. The multiplier is stored in ---- bits in Extended Multiplication.

16 (page 57)

112. Which part of machine code tells the central processor to perform a certain task?

Operation code

113. Which of the following elements will come out first using the POP instruction if 6,3,5,8,4,7 and 9 were pushed on the stack?

9

114. During program execution, if any change occurs in AH or AL, is also reflected in -----.

AX (page 15)

115. To modify the processor's behavior, ----- instructions are used.

special (page 14)

116. Which of the following uses data segment by default?

Base register or BX (page 35)

117. The operand of POP is called the ----- because the data is moving from the stack to the operand.

destination (page 71)

118. In assembly language, the first executable instruction of the program should be placed at the offset -----.
0x0100 (page 26)
119. Suppose, the current value of IP is 0x0129, and the relative address is 0x0012. What will be the new value of IP?
0x013B
120. In the instruction “mov word [es:0], 0x1230”, 12 refers to ----- color on ----- background.
green, blue (page 81)
121. mov ax, [num1] is an example of ----- bit move.
8
122. The physical memory address of 1234:5678 segment-offset pair is:
179B8
123. XOR can also be used as a ----- to invert selective bits.
masking operator (page 60)
124. Call instruction fchanges the values of ----- and ----- registers.
IP, SP (page 65)
125. There are ----- registers in iAPX88 architecture that can hold address of data.
4 (page 80)
126. What does the given instruction do?
SHR DL, 1
Move the right most bit into the carry flag (page 55)

127. In which of the following terms, a character is stored in memory while writing assembly language program?
ASCII code (page 82)
128. Physical memory address is of:
20 bits (page 21)
129. In 8088, there is a -----stack.
decrementing (page 68)
130. Which of the following is also called intro-segment cell?
Near call (page 72)
131. Suppose $BX=0x0120$, $CS=0x1000$, and the memory under consideration is $[CS:BX+0x0880]$.
Which of the following will be the physical address?
109A0
132. Which of the following is the correct syntax for 'OR' operation in assembly language?
or ax, bx (page 59)
133. In assembly language, "DIV BL" instruction has an ----- bit operand.
8 (page 85)
134. Flags register is a special register in every architecture. It is also known as -----.
program status word (page 12)
135. An important role of the stack is in the creation of ----- variables that are only needed while the subroutine is in execution and not afterwards.
Local (page 75)
136. Stack is:

- a data structure** (page 67)
137. Constant can never be used as -----.
destination (page 25)
138. SP is associated (by default) with -----.
SS (page 34)
139. Which bit of attribute byte represents the green component of foreground color?
1 (page 81)
140. BP stands for ----- pointer.
Base (page 32)
141. Shift logical Right (SHR) moves all the bits one position to the ----- and inserts a zero from the -----.
right, left (page 52)
142. The execution of the instruction “mov word [ES :160], 0x1230” will print a character on the screen at the ----- column of the ----- row.
first, second (page 81)
143. The stack of iAPX88 works on ----- sized elements.
word (page 68)
144. MOVS is used to ----- a block of memory.
Move (page 92)
145. Which bit of attribute byte represents the red component of foreground color?
2 (page 81)

146. ----- can also be used as a masking operation to invert selective bits.
XOR (page 60)
147. What is the content of stack pointer?
Address of the top element of the stack
148. Far jump is not position relative rather -----.
Absolute (page 46)
149. In MUL instruction, if the source operand is a byte then the result is returned in ----- and -----.
AH, AL (page 87)
150. Which of the following are the two variants of STOS instruction?
STOSB and STOSW (page 92)
151. ----- cannot appear as an operand in any instruction, it is used for accessing instructions.
IP
152. Which of the following instructions allows code reusability in 8088?
CALL (page 64)
153. Which bit of the attribute byte represents the red component of foreground color?
2 (page 81)
154. In 8051, there is an ----- stack.
incrementing (page 68)
155. Shift logical Right (SHR) operation copies the ----- bit into the carry flag.
right most (page 52)

156. Shift Arithmetic Right (SAR) shifts every bit one place to the right and places a copy of the ----- significant bit at the ---- significant place.
most, most (page 52)
157. There are ----- columns per row on the screen.
80 (page 87)
158. In XOR operation, the output is 1 if both inputs are -----.
different (page 59)
159. Which of the following is the extension of object file?
.exe
160. The stack pointer marks the ----- of stack.
top (page 68)
161. Shifting the integer 5 left by 1 bit results in -----.
10
162. Program consists of ----- logical parts.
Two (page 20)
163. In ----- operation, a carry flag is inserted from the left moving every bit one position to its right. The right most bit is dropped in the carry flag.
Rotate Through Carry Right (RCR) (page 53)
164. Memory address always goes from
processor to memory
165. The unit of stack operations in iAPX88 is a
word (page 68)

166. 8088 is a processor with its accumulator and all registers of
16 bit, 16 bits (page 14)
167. Which of the following keywords is used to define two bytes in memory?
DW (page 25)
168. jump is absolute and not position relative.
Far (page 46)
169. Which of the following directive is used to reserve an eight bits space in memory?
db (page 25)
170. What makes db different from dw?
dw occupies 16 bits and db occupies 8 bits (page 25)
171. The total numbers of symbols in extended ASCII are
256
172. is used for permanent diversion.
Jump (page 63)
173. In MUL instruction, if the source operand is a word, then it is multiplied with ----- register.
AX (page 87)
174. The intent of the processor is carried to the memory for read/write operations through the.....
control bus (page 11)

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