

COAL
BS DS Fall 2022 Afternoon
Quiz 5

Time allowed: 20 min

Total marks: 20

Roll Number: _____

Name: _____

Assume SP=03F0h before the start of very first instruction in the following program. Answer the questions given at the end:

076A:0000	B86C07	MOV	AX,076C
076A:0003	8ED8	MOV	DS,AX
076A:0005	B82100	MOV	AX,0021
076A:0008	BB0300	MOV	BX,0003
076A:000B	E80400	CALL	0012
076A:000E	B44C	MOV	AH,4C
076A:0010	CD21	INT	21
076A:0012	50	PUSH	AX
076A:0013	53	PUSH	BX
076A:0014	33C9	XOR	CX,CX
076A:0016	E80300	CALL	001C
076A:0019	5B	POP	BX
076A:001A	58	POP	AX
076A:001B	C3	RET	
076A:001C	83FB01	CMP	BX,+01
076A:001D	7402	JZ	0023
076A:0021	03CB	ADD	CX,AX
076A:0023	D1E0	SHL	AX,1
076A:0025	D1EB	SHR	BX,1
076A:0027	75F3	JNZ	001C
076A:0029	C3	RET	

1. What is the value of **IP** after the execution of instruction CALL 0012?

0012

2. What is the value of **SP** after the execution of "CALL 0012" instruction?

03EE

3. What would be on **top of stack** after the execution of "CALL 0012" instruction?

000E

4. What is the value of **SP** after the execution of "CALL 001C" instruction?

03E8

5. What is in **SP** after the execution of RET instruction at 0029?

03EA

6. What is in **IP** after the execution of RET instruction at 0029?

0019

7. What is in **SP** after the execution of RET instruction at 001B?

03F0

8. What is in **IP** after the execution of RET instruction at 001B?

000E

9. What is the value of ???? in this program?

001F

10. What will be the value of CX after the complete execution of the program?

0021