

Review for Final Exam

Do NOT write on this test. Record all answers on the bubble sheet. **Closed book. No notes.** Work strictly from memory. **No calculators. No time limit. Scratch paper okay.**

On the following printf questions you are given a list of inputs. For each problem line determine which printf statement created the accompanying outputs. (means space.)

Which of these printf statements created the outputs shown for each problem below? (x is int x;)

- (A) printf("uuu%-3d",x); (D) printf("_%5d",x); (G) printf("%+-7d",x);
 (B) printf("uu%05d",x); (E) printf("_%6d",x); (H) printf("%-6d",x);
 (C) printf("_%03d",x); (F) printf("%3d",x); (I) printf("%3d",x);

inputs:	<u> 3</u>	<u> -7</u>	<u>2145063536</u>	<u>-1981452241</u>
1/6p.	uu3uuuu	u-7uuuu	2145063536uuuu	-1981452241uuuu
2/6p.	uuu3uuu	uuu-7uu	uuu2145063536u	uuu-1981452241u
3/6p.	uu03uuu	u-07uuu	uu2145063536uuuu	u-1981452241uuuu
4/6p.	uuuuuu3	uuuuu-7	u2145063536	u-1981452241
5/6p.	+3uuuuu	-7uuuuu	+2145063536	-1981452241
6/6p.	uu00003	uu-0007	uu2145063536	uu-1981452241
7/6p.	u3uuuuu	-7uuuuu	u2145063536u	-1981452241u
8/6p.	uuuuu3u	uuuu-7u	uu2145063536u	u-1981452241u

Which of these printf statements created the outputs shown for each problem below? (x is int x;)

- (A) printf("uuuu%-2d",x); (D) printf("uu%5d",x); (G) printf("%-8d",x);
 (B) printf("uuu%-3d",x); (E) printf("%+5d",x); (H) printf("%+06d",x);
 (C) printf("uu%-4d",x); (F) printf("%0+7d",x); (I) printf("%08d",x);

inputs:	<u> 8</u>	<u> -4</u>	<u>1544597685</u>	<u>-1608376203</u>
9/6p.	uuu8uuuu	uuu-4uuu	uuu1544597685uu	uuu-1608376203uu
10/6p.	+00008uu	-00004uu	+1544597685uu	-1608376203uu
11/6p.	uuu8uuuu	uu-4uuuu	uuu1544597685uu	uu-1608376203uu
12/6p.	u+000008	u-000004	u+1544597685	u-1608376203
13/6p.	uuuu8uuu	uuuu-4uu	uuuu1544597685uu	uuuu-1608376203uu
14/6p.	uuuuuu8u	uuuuu-4u	uuu1544597685u	uu-1608376203u
15/6p.	u+8uuuuu	u-4uuuuu	u+1544597685uu	u-1608376203uu
16/6p.	00000008	-0000004	1544597685	-1608376203

Which of these printf statements created the outputs shown for each problem below? (x is int x;)

- (A) printf("uu%4d",x); (D) printf("_%4d",x); (G) printf("%+05d",x);
 (B) printf("uu%5d",x); (E) printf("%06d",x); (H) printf("%-6d",x);
 (C) printf("_%+5d",x); (F) printf("%7d",x); (I) printf("%-7d",x);

inputs:	<u> 8</u>	<u> -5</u>	<u>1448635892</u>	<u>-1913698093</u>
17/6p.	u00008u	-00005u	u1448635892u	-1913698093u
18/6p.	+0008uu	-0005uu	+1448635892uu	-1913698093uu
19/6p.	8uuuuuu	-5uuuuu	1448635892u	-1913698093u
20/6p.	uuuu8uu	uuu-5uu	u1448635892uu	u-1913698093uu
21/6p.	uuuuuu8	uuuuu-5	uuu1448635892	uu-1913698093
22/6p.	8uuuuuu	-5uuuuu	1448635892	-1913698093
23/6p.	uuuuu8u	uuuu-5u	uuu1448635892u	uu-1913698093u
24/6p.	uuuuuu8	uuuuu-5	u1448635892	-1913698093

Which of these printf statements created the outputs shown for each problem below? (x is char * x;)

- (A) `printf("____%-2s",x);` (D) `printf("_%s____",x);` (G) `printf("%-6s",x);`
 (B) `printf("____%s____",x);` (E) `printf("_%-3s_",x);` (H) `printf("%3s____",x);`
 (C) `printf("_%4s",x);` (F) `printf("_%-4s_",x);` (I) `printf("%6s",x);`

inputs:	<u>""</u>	<u>"p"</u>	<u>"cj"</u>	<u>"gzjv"</u>	<u>"bvbvvp"</u>	<u>"wbjvffqq"</u>
25/6p.	_____	_____P	____cj	__gzjv	__bvbvvp	__wbjvffqq
26/6p.	_____	__P_____	_cj_____	gzjv_____	bvbvvp_____	wbjvffqq_____
27/6p.	_____	_____P	____cj	__gzjv	bvbvvp	wbjvffqq
28/6p.	_____	P_____	_cj_____	gzjv__	bvbvvp	wbjvffqq
29/6p.	_____	_P_____	_cj_____	_gzjv__	_bvbvvp__	_wbjvffqq__
30/6p.	_____	____P__	____cj	____gzjv__	____bvbvvp__	____wbjvffqq__

Which of these printf statements created the outputs shown for each problem below? (x is char * x;)

- (A) `printf("____%s____",x);` (D) `printf("%-3s____",x);` (G) `printf("%-7s",x);`
 (B) `printf("_%_-4s_",x);` (E) `printf("%-5s____",x);` (H) `printf("%6s_",x);`
 (C) `printf("_%1s____",x);` (F) `printf("%-6s_",x);` (I) `printf("%7s",x);`

inputs:	<u>""</u>	<u>"z"</u>	<u>"wk"</u>	<u>"zbjv"</u>	<u>"bxckbp"</u>	<u>"jbdxcbhb"</u>
31/6p.	_____	Z_____	wk_____	zbjv_____	bxckbp__	jbdxcbhb
32/6p.	_____	____Z_____	____wk_____	____zbjv_____	____bxckbp_____	____jbdxcbhb_____
33/6p.	_____	_____Z__	____wk__	__zbjv__	bxckbp__	jbdxcbhb__
34/6p.	_____	Z_____	wk_____	zbjv_____	bxckbp__	jbdxcbhb__
35/6p.	_____	Z_____	wk_____	zbjv_____	bxckbp__	jbdxcbhb__

Which of these printf statements created the outputs shown for each problem below? (x is double x;)

- (A) `printf("____%10.2f",x);` (D) `printf("_%10f____",x);` (G) `printf("%+014.0f",x);`
 (B) `printf("_%010f____",x);` (E) `printf("_%0+13f",x);` (H) `printf("%0+12.4f____",x);`
 (C) `printf("_%011.0f____",x);` (F) `printf("_%12.0f____",x);` (I) `printf("%010.6f____",x);`

inputs:	<u>1</u>	<u>-2.15</u>	<u>5.3531</u>	<u>-870701.178781</u>
36/6p.	_____1.000000__	____-2.150000__	_____5.353100__	____-870701.178781__
37/6p.	_____1.00__	____-2.15__	_____5.35__	____-870701.18__
38/6p.	+0000000000001	-0000000000002	+0000000000005	-0000000870701
39/6p.	__001.000000__	__-02.150000__	__005.353100__	__-870701.178781__
40/6p.	__00000000001__	__-00000000002__	__00000000005__	__-0000870701__
41/6p.	_____1__	____-2__	_____5__	____-870701__

Which of these printf statements created the outputs shown for each problem below? (x is double x;)

- (A) `printf("_%+10.0f____",x);` (D) `printf("_%13.0f",x);` (G) `printf("%013.6f____",x);`
 (B) `printf("_%0+11.6f____",x);` (E) `printf("%0+14.2f",x);` (H) `printf("%014.4f",x);`
 (C) `printf("_%013.4f",x);` (F) `printf("%013.0f____",x);` (I) `printf("%14.2f",x);`

inputs:	<u>3</u>	<u>-2.78</u>	<u>-7.9575</u>	<u>-11653.049556</u>
42/6p.	000000003.0000	-00000002.7800	-00000007.9575	-00011653.0496
43/6p.	0000000000003__	-000000000003__	-000000000008__	-000000011653__
44/6p.	+000000003.00	-0000000002.78	-0000000007.96	-0000011653.05
45/6p.	_____+3_____	____-3_____	____-8_____	____-11653_____
46/6p.	_+003.000000__	_ -002.780000__	_ -007.957500__	_ -11653.049556__
47/6p.	000003.000000__	-00002.780000__	-00007.957500__	-11653.049556__

Total points 282.

Answer Key (points per line)

1 (6).	I	25 (6).	C
2 (6).	A	26 (6).	H
3 (6).	C	27 (6).	I
4 (6).	E	28 (6).	G
5 (6).	G	29 (6).	F
6 (6).	B	30 (6).	A
7 (6).	H	31 (6).	G
8 (6).	D	32 (6).	A
9 (6).	B	33 (6).	H
10 (6).	H	34 (6).	E
11 (6).	C	35 (6).	F
12 (6).	F	36 (6).	D
13 (6).	A	37 (6).	A
14 (6).	D	38 (6).	G
15 (6).	E	39 (6).	B
16 (6).	I	40 (6).	C
17 (6).	E	41 (6).	F
18 (6).	G	42 (6).	H
19 (6).	H	43 (6).	F
20 (6).	D	44 (6).	E
21 (6).	B	45 (6).	A
22 (6).	I	46 (6).	B
23 (6).	A	47 (6).	G
24 (6).	F		

Total points 282.