

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("uuuuuu%d",x); (D) printf("%+9d",x); (G) printf("%-10d",x);
 (B) printf("uu%+-6d",x); (E) printf("%-9d",x); (H) printf("%010d",x);
 (C) printf("%9d",x); (F) printf("%0+9d",x); (I) printf("%010d",x);

inputs:	<u> 0</u>	<u> -3</u>	<u>1839927308</u>	<u>-1241404323</u>
1/6p.	<u> 000000000</u>	<u>-000000003</u>	<u> 1839927308</u>	<u>-1241404323</u>
2/6p.	<u> 0uuuuuuuu</u>	<u>-3uuuuuuuu</u>	<u> 1839927308</u>	<u> -1241404323</u>
3/6p.	<u> uuuuuu0uu</u>	<u> uuuuuu-3uu</u>	<u> uuuuuu1839927308uu</u>	<u> uuuuuu-1241404323uu</u>
4/6p.	<u> +00000000</u>	<u> -00000003</u>	<u> +1839927308</u>	<u> -1241404323</u>
5/6p.	<u> uuuuuuuu0</u>	<u> uuuuuuuu-3</u>	<u> uu1839927308</u>	<u> -1241404323</u>
6/6p.	<u> 000000000</u>	<u>-000000003</u>	<u> 1839927308</u>	<u>-1241404323</u>
7/6p.	<u> 0uuuuuuuu</u>	<u>-3uuuuuuuu</u>	<u> 1839927308</u>	<u>-1241404323</u>
8/6p.	<u> uu+0uuuuuu</u>	<u> uu-3uuuuuu</u>	<u> uu+1839927308uu</u>	<u> uu-1241404323uu</u>

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

- (A) printf("uu%03d",x); (D) printf("%-5d",x); (G) printf("%08d",x);
 (B) printf("uu%06d",x); (E) printf("%05d",x); (H) printf("%0+7d",x);
 (C) printf("%-3d",x); (F) printf("%+-8d",x); (I) printf("%07d",x);

inputs:	<u> 1</u>	<u> -2</u>	<u>1393566284</u>	<u>-1135299926</u>
9/6p.	<u> 1uuuuuuu</u>	<u> -2uuuuuuu</u>	<u> 1393566284uu</u>	<u> -1135299926uu</u>
10/6p.	<u> +1uuuuuuu</u>	<u> -2uuuuuuu</u>	<u> +1393566284</u>	<u> -1135299926</u>
11/6p.	<u> 0000001u</u>	<u> -000002u</u>	<u> 1393566284u</u>	<u> -1135299926u</u>
12/6p.	<u> 00001uu</u>	<u> -0002uu</u>	<u> 1393566284uu</u>	<u> -1135299926uu</u>
13/6p.	<u> 1uuuuuuu</u>	<u> -2uuuuuuu</u>	<u> 1393566284uuuu</u>	<u> -1135299926uuuu</u>
14/6p.	<u> +000001u</u>	<u> -000002u</u>	<u> +1393566284u</u>	<u> -1135299926u</u>
15/6p.	<u> uu01uuu</u>	<u> uu-02uuu</u>	<u> uu1393566284uuu</u>	<u> uu-1135299926uuu</u>
16/6p.	<u> 0000001</u>	<u> -0000002</u>	<u> 1393566284</u>	<u> -1135299926</u>

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

- (A) printf("uuuuu%du",x); (D) printf("%-6d",x); (G) printf("%06d",x);
 (B) printf("uuuu%+-3d",x); (E) printf("%+5d",x); (H) printf("%6d",x);
 (C) printf("uuuu%03d",x); (F) printf("%-6d",x); (I) printf("%-3du",x);

inputs:	<u> 6</u>	<u> -8</u>	<u>1146674247</u>	<u>-1992606180</u>
17/6p.	<u> uu6uuuuu</u>	<u> uu-8uuuuu</u>	<u> uu1146674247</u>	<u> uu-1992606180</u>
18/6p.	<u> uuuuu+6u</u>	<u> uuuuu-8u</u>	<u> uu+1146674247u</u>	<u> uu-1992606180u</u>
19/6p.	<u> 6uuuuuuu</u>	<u> -8uuuuuuu</u>	<u> 1146674247uuuuuu</u>	<u> -1992606180uuuuuu</u>
20/6p.	<u> uu00006u</u>	<u> u-00008u</u>	<u> uu1146674247u</u>	<u> u-1992606180u</u>
21/6p.	<u> uuuu006u</u>	<u> uuuu-08u</u>	<u> uuuu1146674247u</u>	<u> uuuu-1992606180u</u>
22/6p.	<u> uuu6uuuu</u>	<u> uu-8uuuuu</u>	<u> uuu1146674247</u>	<u> uu-1992606180</u>
23/6p.	<u> uuuu+6uu</u>	<u> uuuu-8uu</u>	<u> uuuu+1146674247u</u>	<u> uuuu-1992606180u</u>
24/6p.	<u> uuuuuu6u</u>	<u> uuuuu-8u</u>	<u> uu1146674247u</u>	<u> u-1992606180u</u>

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

- (A) `printf("____%s", x);` (D) `printf("%-2s", x);` (G) `printf("%-3s", x);`
 (B) `printf("___%1s", x);` (E) `printf("%1s___", x);` (H) `printf("%-4s", x);`
 (C) `printf("___%2s", x);` (F) `printf("%3s", x);` (I) `printf("%4s", x);`

inputs:	<u>" "</u>	<u>"l"</u>	<u>"fh"</u>	<u>"zcxv"</u>	<u>"clcvzz"</u>	<u>"zbvbpddd"</u>
25/6p.	____	___l	__fh	zcxv	clcvzz	zbvbpddd
26/6p.	____	___l	__fh	zcxv	clcvzz	zbvbpddd
27/6p.	____	l___	fh__	zcxv	clcvzz	zbvbpddd
28/6p.	____	___l	__fh	zcxv	clcvzz	zbvbpddd
29/6p.	____	___l	__fh	zcxv	clcvzz	zbvbpddd
30/6p.	____	l___	fh__	zcxv	clcvzz	zbvbpddd

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

- (A) `printf("____%1s", x);` (D) `printf("%-4s", x);` (G) `printf("%4s", x);`
 (B) `printf("____%-3s", x);` (E) `printf("%-5s", x);` (H) `printf("%-6s", x);`
 (C) `printf("___%-2s", x);` (F) `printf("%3s", x);` (I) `printf("%6s", x);`

inputs:	<u>" "</u>	<u>"x"</u>	<u>"qz"</u>	<u>"hyqd"</u>	<u>"fjkqpl"</u>	<u>"ykjzgywj"</u>
31/6p.	____	x____	qz____	hyqd	fjkqpl	ykjzgywj
32/6p.	____	__x____	__qz__	__hyqd	__fjkqpl	__ykjzgywj
33/6p.	____	x____	qz____	hyqd	fjkqpl	ykjzgywj
34/6p.	____	__x____	__qz__	__hyqd	__fjkqpl	__ykjzgywj
35/6p.	____	____x	____qz	__hyqd	fjkqpl	ykjzgywj

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

- (A) `printf("___%+012f", x);` (D) `printf("%012.6f", x);` (G) `printf("%+12.6f", x);`
 (B) `printf("___%11.2f", x);` (E) `printf("%013f", x);` (H) `printf("%+14.4f", x);`
 (C) `printf("%010.2f", x);` (F) `printf("%+013.6f", x);` (I) `printf("%11f", x);`

inputs:	<u>0</u>	<u>-2.26</u>	<u>4.5674</u>	<u>-33392.135329</u>
36/6p.	00000.000000	-0002.260000	00004.567400	-33392.135329
37/6p.	+00000.000000	-00002.260000	+00004.567400	-33392.135329
38/6p.	____+0.0000	____-2.2600	____+4.5674	____-33392.1353
39/6p.	0000000.00	-000002.26	0000004.57	-033392.14
40/6p.	____0.00	____-2.26	____4.57	____-33392.14
41/6p.	0.000000	-2.260000	4.567400	-33392.135329

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

- (A) `printf("___%11.0f", x);` (D) `printf("%011.2f", x);` (G) `printf("%+14f", x);`
 (B) `printf("___%+11.0f", x);` (E) `printf("%12.0f", x);` (H) `printf("%014.2f", x);`
 (C) `printf("%+013.2f", x);` (F) `printf("%+13f", x);` (I) `printf("%14.6f", x);`

inputs:	<u>4</u>	<u>-1.08</u>	<u>-2.3805</u>	<u>-84329.488708</u>
42/6p.	+000000004.00	-000000001.08	-000000002.38	-000084329.49
43/6p.	____4	____-1	____-2	____-84329
44/6p.	____+4	____-1	____-2	____-84329
45/6p.	____4.000000	____-1.080000	____-2.380500	____-84329.488708
46/6p.	____+4.000000	____-1.080000	____-2.380500	____-84329.488708
47/6p.	00000004.00	-0000001.08	-0000002.38	-0084329.49

Total points 282.

Answer Key (points per line)

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

Total points 282.