

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("uuuuu%+d",x);` (D) `printf("uu%0u6d",x);` (G) `printf("%+8d",x);`
 (B) `printf("uuuu%2d",x);` (E) `printf("uu%05d",x);` (H) `printf("%+9d",x);`
 (C) `printf("uu%+-4d",x);` (F) `printf("u%+-8d",x);` (I) `printf("%9d",x);`

inputs:	<u> 4</u>	<u> -6</u>	<u>1774233140</u>	<u>-1354949764</u>
1/6p.	uuuuu4uuu	uuuu-6uuu	uuuu1774233140uuu	uuuu-1354949764uuu
2/6p.	uuu00004u	uu-00006u	uuu1774233140u	uu-1354949764u
3/6p.	uu00004uu	uu-0006uu	uu1774233140uu	uu-1354949764uu
4/6p.	uu+4uuuuu	uu-6uuuuu	uu+1774233140uuu	uu-1354949764uuu
5/6p.	uuuuuu+4u	uuuuuu-6u	+1774233140u	-1354949764u
6/6p.	uuuuuu+4uuu	uuuuuu-6uuu	uuuuuu+1774233140uuu	uuuuuu-1354949764uuu
7/6p.	u+4uuuuuu	u-6uuuuuu	u+1774233140	u-1354949764
8/6p.	uuuuuuu+4	uuuuuuu-6	+1774233140	-1354949764

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

- (A) `printf("uuuu%03d",x);` (D) `printf("uu%+3d",x);` (G) `printf("u%7d",x);`
 (B) `printf("uuu%u-3d",x);` (E) `printf("u%02d",x);` (H) `printf("%u8d",x);`
 (C) `printf("uuu%+05d",x);` (F) `printf("u%07d",x);` (I) `printf("%08d",x);`

inputs:	<u> 4</u>	<u> -1</u>	<u>1561876532</u>	<u>-1082370091</u>
9/6p.	uuuu4uuu	uuu-1uuu	uuuu1561876532uu	uuu-1082370091uu
10/6p.	uuu+0004	uuu-0001	uuu+1561876532	uuu-1082370091
11/6p.	u04uuuuu	u-1uuuuu	u1561876532uuuuu	u-1082370091uuuuu
12/6p.	uu+4uuuu	uu-1uuuu	uu+1561876532uuu	uu-1082370091uuu
13/6p.	00000004	-0000001	1561876532	-1082370091
14/6p.	uuuuuuu4	uuuuuuu-1	u1561876532	-1082370091
15/6p.	u0000004	u-000001	u1561876532	u-1082370091
16/6p.	uuuuuuu4	uuuuuuu-1	u1561876532	u-1082370091

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

- (A) `printf("uuuuu%2d",x);` (D) `printf("uu%7d",x);` (G) `printf("%u9d",x);`
 (B) `printf("uuu%0+5d",x);` (E) `printf("u%u03d",x);` (H) `printf("%+06d",x);`
 (C) `printf("uu%6d",x);` (F) `printf("u%+7d",x);` (I) `printf("%-+8d",x);`

inputs:	<u> 4</u>	<u> -3</u>	<u>1686422372</u>	<u>-1245896144</u>
17/6p.	uuuuuuuu4	uuuuuuuu-3	uu1686422372	uu-1245896144
18/6p.	uuuuuu4uu	uuuuuu-3uu	uuuuu1686422372uu	uuuuu-1245896144uu
19/6p.	+4uuuuuuu	-3uuuuuuu	+1686422372u	-1245896144u
20/6p.	uu04uuuuu	u-03uuuuu	uu1686422372uuuuu	u-1245896144uuuuu
21/6p.	+00004uuu	-00003uuu	+1686422372uuu	-1245896144uuu
22/6p.	uuuuuu+4u	uuuuuu-3u	u+1686422372u	u-1245896144u
23/6p.	uuuuuuuu4	uuuuuuuu-3	u1686422372	-1245896144
24/6p.	uuuuuuuu4u	uuuuuuuu-3u	uu1686422372u	uu-1245896144u

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

- (A) `printf("_____%s",x);` (D) `printf("____%1s",x);` (G) `printf("%-4s",x);`
 (B) `printf("____%1s",x);` (E) `printf("____%3s",x);` (H) `printf("%s",x);`
 (C) `printf("____%-2s",x);` (F) `printf("____%4s",x);` (I) `printf("%-7s",x);`

	<u>"</u>	<u>"z"</u>	<u>"vz"</u>	<u>"cbhz"</u>	<u>"ydpxly"</u>	<u>"bffzpkhw"</u>
25/6p.	_____	____z	____vz	____cbhz	____ydpxly	____bffzpkhw
26/6p.	_____	____z	____vz	____cbhz	____ydpxly	____bffzpkhw
27/6p.	_____	____z	____vz	____cbhz	____ydpxly	____bffzpkhw
28/6p.	_____	____z	____vz	____cbhz	____ydpxly	____bffzpkhw
29/6p.	_____	____z	____vz	____cbhz	____ydpxly	____bffzpkhw
30/6p.	_____	____z	____vz	____cbhz	____ydpxly	____bffzpkhw

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

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

	<u>"</u>	<u>"f"</u>	<u>"jf"</u>	<u>"bxfb"</u>	<u>"lbffwv"</u>	<u>"jychpbjq"</u>
31/6p.	_____	____f	____jf	____bxfb	____lbffwv	____jychpbjq
32/6p.	_____	____f	____jf	____bxfb	____lbffwv	____jychpbjq
33/6p.	_____	____f	____jf	____bxfb	____lbffwv	____jychpbjq
34/6p.	_____	____f	____jf	____bxfb	____lbffwv	____jychpbjq
35/6p.	_____	____f	____jf	____bxfb	____lbffwv	____jychpbjq

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

- (A) `printf("____%+12.2f",x);` (D) `printf("____%010.2f",x);` (G) `printf("%+012.0f",x);`
 (B) `printf("____%+12.4f",x);` (E) `printf("____%+10.0f",x);` (H) `printf("%+014.4f",x);`
 (C) `printf("____%0+10f",x);` (F) `printf("____%013.0f",x);` (I) `printf("%14.0f",x);`

	<u>9</u>	<u>-1.52</u>	<u>-1.1322</u>	<u>-40370.809475</u>
36/6p.	____0000009.00	____-000001.52	____-000001.13	____-040370.81
37/6p.	____000000000009	____-000000000002	____-000000000001	____-000000040371
38/6p.	____+09.000000	____-01.520000	____-01.132200	____-40370.809475
39/6p.	____+9.0000	____-1.5200	____-1.1322	____-40370.8095
40/6p.	____+9	____-2	____-1	____-40371
41/6p.	____+00000000009	____-00000000002	____-00000000001	____-00000040371

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

- (A) `printf("____%+010.6f",x);` (D) `printf("____%12.2f",x);` (G) `printf("%0+14.0f",x);`
 (B) `printf("____%010.0f",x);` (E) `printf("____%012f",x);` (H) `printf("%0+14.2f",x);`
 (C) `printf("____%11.2f",x);` (F) `printf("____%12.6f",x);` (I) `printf("%014.2f",x);`

	<u>3</u>	<u>-3.32</u>	<u>7.5829</u>	<u>-35476.901529</u>
42/6p.	____+03.000000	____-03.320000	____+07.582900	____-35476.901529
43/6p.	____+0000000003.00	____-0000000003.32	____+0000000007.58	____-0000035476.90
44/6p.	____+0000000000003	____-0000000000003	____+0000000000008	____-0000000035477
45/6p.	____0000000003	____-0000000003	____0000000008	____-000035477
46/6p.	____+3.00	____-3.32	____+7.58	____-35476.90
47/6p.	____+3.000000	____-3.320000	____+7.582900	____-35476.901529

Total points 282.

Answer Key (points per line)

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

Total points 282.