

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%-2d ",x); (D) printf("uu%-u8d",x); (G) printf("%-+10d",x);
 (B) printf("uu%-6d ",x); (E) printf("u%9d",x); (H) printf("%-8d ",x);
 (C) printf("uu%+08d",x); (F) printf("%-u10d",x); (I) printf("%-9d ",x);

inputs:	<u> 0</u>	<u> -4</u>	<u>1883626915</u>	<u>-2080136377</u>
1/6p.	uuuuuu0uuu	uuuuuu-4uu	uuuuuu1883626915uu	uuuuuu-2080136377uu
2/6p.	uuu0uuuuuu	uu-4uuuuuu	uuu1883626915	uu-2080136377
3/6p.	u0uuuuuuuu	-4uuuuuuuu	u1883626915	-2080136377
4/6p.	+0uuuuuuuu	-4uuuuuuuu	+1883626915	-2080136377
5/6p.	uuu0uuuuuu	uu-4uuuuuu	uuu1883626915uu	uu-2080136377uu
6/6p.	uuuuuuuuu0	uuuuuuuu-4	u1883626915	u-2080136377
7/6p.	0uuuuuuuuu	-4uuuuuuuu	1883626915u	-2080136377u
8/6p.	0uuuuuuuuu	-4uuuuuuuu	1883626915uu	-2080136377uu

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

- (A) printf("uuu%u3d ",x); (D) printf("uu%4d ",x); (G) printf("u%+03d ",x);
 (B) printf("uuu%0u4d ",x); (E) printf("uu%6d",x); (H) printf("%+7d ",x);
 (C) printf("uu%-3d ",x); (F) printf("u%u5d ",x); (I) printf("%8d",x);

inputs:	<u> 5</u>	<u> -7</u>	<u>1118598986</u>	<u>-1725423966</u>
9/6p.	uuuuu5uu	uuuu-7uu	uuuu1118598986uu	uuu-1725423966uu
10/6p.	uuuuuuu5	uuuuuu-7	1118598986	-1725423966
11/6p.	uuuuu5uu	uuuu-7uu	uu1118598986uu	u-1725423966uu
12/6p.	uuuuu+5u	uuuuu-7u	+1118598986u	-1725423966u
13/6p.	uuuuuuu5	uuuuuu-7	uu1118598986	uu-1725423966
14/6p.	u+05uuuu	u-07uuuu	u+1118598986uuuu	u-1725423966uuuu
15/6p.	uuuu005u	uuu-007u	uuuu1118598986u	uuu-1725423966u
16/6p.	uuuuu5uu	uuuu-7uu	uu1118598986uu	uu-1725423966uu

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

- (A) printf("uuuu%u3d ",x); (D) printf("u%u6d ",x); (G) printf("%+07d ",x);
 (B) printf("uu%0u5d ",x); (E) printf("u%-+7d",x); (H) printf("%+8d",x);
 (C) printf("u%u06d ",x); (F) printf("u%06d ",x); (I) printf("%8d",x);

inputs:	<u> 5</u>	<u> -1</u>	<u>2092311118</u>	<u>-1859265974</u>
17/6p.	uuuuuuu5	uuuuuu-1	2092311118	-1859265974
18/6p.	+000005u	-000001u	+2092311118u	-1859265974u
19/6p.	uu00005u	u-00001u	uu2092311118u	u-1859265974u
20/6p.	uuu0005u	uu-0001u	uuu2092311118u	uu-1859265974u
21/6p.	u+5uuuuu	u-1uuuuu	u+2092311118	u-1859265974
22/6p.	u000005u	u-00001u	u2092311118u	u-1859265974u
23/6p.	uuuuuu5u	uuuuuu-1u	uuuuu2092311118u	uuuuu-1859265974u
24/6p.	uuuuuu5u	uuuuuu-1u	uu2092311118u	uu-1859265974u

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("%2s", x);`
 (B) `printf("_%-2s", x);` (E) `printf("%-3s", x);` (H) `printf("%4s", x);`
 (C) `printf("_%1s", x);` (F) `printf("%-4s", x);`

inputs:	<u>"</u>	<u>"d"</u>	<u>"gw"</u>	<u>"glyq"</u>	<u>"zqhdhd"</u>	<u>"jphkkqll"</u>
25/6p.	uuuu	d_uuu	g_wuu	glyq_u	zqhdhd_u	jphkkqll_u
26/6p.	uuuu	uuud	uugw	uglyq	uzqhdhd	ujphkkqll
27/6p.	uuuu	uuud	uugw	glyq	zqhdhd	jphkkqll
28/6p.	uuuu	d_uuu	g_wuu	glyq	zqhdhd	jphkkqll
29/6p.	uuuu	ud_uu	ug_wuu	uglyq_uu	uzqhdhd_uu	ujphkkqll_uu
30/6p.	uuuu	ud_uu	ug_wu	uglyq_u	uzqhdhd_u	ujphkkqll_u

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

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

inputs:	<u>"</u>	<u>"q"</u>	<u>"pf"</u>	<u>"yvcw"</u>	<u>"gygwg"</u>	<u>"bbkdcghk"</u>
31/6p.	uuuuuu	uuuuqu	uuupf_u	uuuyvcw_u	uuugygwg_u	uuubbkdcghk_u
32/6p.	uuuuuu	uuuuqu	uuupf_u	uyvcw_u	ugygwg_u	ubbkdcghk_u
33/6p.	uuuuuu	uuuuquuu	uuupf_uu	uuuyvcw_uu	uuugygwg_uu	uuubbkdcghk_uu
34/6p.	uuuuuu	quuuuu	pfuuuu	yvcw_uuu	gygwg_uuu	bbkdcghk_uuu
35/6p.	uuuuuu	uuuuuq	uuupf	uuuyvcw	uuugygwg	uuubbkdcghk

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

- (A) `printf("_u%011.2f", x);` (D) `printf("_u%013.6f", x);` (G) `printf("%014.0f", x);`
 (B) `printf("_u%011f", x);` (E) `printf("_u%11.6f", x);` (H) `printf("%13.0f", x);`
 (C) `printf("_u%+011.0f", x);` (F) `printf("_u%13f", x);` (I) `printf("%14f", x);`

inputs:	<u>3</u>	<u>-1.36</u>	<u>-8.4011</u>	<u>-532398.245865</u>
36/6p.	00000000000003	-0000000000001	-0000000000008	-000000532398
37/6p.	uuuuuu3.000000	uuuuu-1.360000	uuuuu-8.401100	u-532398.245865
38/6p.	u000003.000000	u-00001.360000	u-00008.401100	u-532398.245865
39/6p.	uuuuuuuuuuuu3_u	uuuuuuuuuuuu-1_u	uuuuuuuuuuuu-8_u	uuuuuu-532398_u
40/6p.	uu0003.000000_u	uu-001.360000_u	uu-008.401100_u	uu-532398.245865_u
41/6p.	uuuu3.000000_uu	uuu-1.360000_uu	uuu-8.401100_uu	u-532398.245865_uu

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

- (A) `printf("_u%010.2f", x);` (D) `printf("_u%+011.2f", x);` (G) `printf("%+014.6f", x);`
 (B) `printf("_u%11.0f", x);` (E) `printf("_u%+013.4f", x);` (H) `printf("%014.0f", x);`
 (C) `printf("_u%11.4f", x);` (F) `printf("_u%+11.0f", x);` (I) `printf("%14.0f", x);`

inputs:	<u>5</u>	<u>-1.03</u>	<u>-2.3917</u>	<u>-362894.001133</u>
42/6p.	uuuuuuuu5.0000_u	uuuuuu-1.0300_u	uuuuuu-2.3917_u	uu-362894.0011_u
43/6p.	uuuuuuuuuu+5_uu	uuuuuuuuuu-1_uu	uuuuuuuuuu-2_uu	uuuuu-362894_uu
44/6p.	uu0000005.00_uu	uu-000001.03_uu	uu-000002.39_uu	uu-362894.00_uu
45/6p.	uuuuuuuuuuuu5_uu	uuuuuuuuuuuu-1_uu	uuuuuuuuuuuu-2_uu	uuuuuuuu-362894_uu
46/6p.	uuuuuuuuuuuu5_u	uuuuuuuuuuuu-1_u	uuuuuuuuuuuu-2_u	uuuuuuuu-362894_u
47/6p.	u+0000005.00_uu	u-0000001.03_uu	u-0000002.39_uu	u-0362894.00_uu

Total points 282.

Answer Key (points per line)

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

Total points 282.