

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("uu%uduuuu",x);` (D) `printf("u%u03duuu",x);` (G) `printf("%u05duuu",x);`
 (B) `printf("uu%+04du",x);` (E) `printf("u%2duuuuu",x);` (H) `printf("%u07du",x);`
 (C) `printf("uu%0+3duuu",x);` (F) `printf("u%3duuuuu",x);` (I) `printf("%+05duuu",x);`

inputs:	<u>6</u>	<u>-9</u>	<u>1690974992</u>	<u>-1695141532</u>
1/6p.	uu6uuuuu	u-9uuuuu	u1690974992uuuuu	u-1695141532uuuuu
2/6p.	uu+06uuu	uu-09uuu	uu+1690974992uuu	uu-1695141532uuu
3/6p.	uuu6uuuuu	uu-9uuuuu	uuu1690974992uuuuu	uu-1695141532uuuuu
4/6p.	uu+006uu	uu-009uu	uu+1690974992uu	uu-1695141532uu
5/6p.	uu06uuuu	u-09uuuu	uu1690974992uuuu	u-1695141532uuuu
6/6p.	u0006uuu	-0009uuu	u1690974992uuu	-1695141532uuu
7/6p.	u000006u	-000009u	u1690974992u	-1695141532u
8/6p.	uuu6uuuu	uu-9uuuu	uu1690974992uuuu	uu-1695141532uuuu

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

- (A) `printf("uuu%+03du",x);` (D) `printf("uu%+3duu",x);` (G) `printf("%u03duuuuu",x);`
 (B) `printf("uuu%04du",x);` (E) `printf("uu%uduuuu",x);` (H) `printf("%u6du",x);`
 (C) `printf("uu%uduuuu",x);` (F) `printf("u%06d",x);` (I) `printf("%-6du",x);`

inputs:	<u>6</u>	<u>-1</u>	<u>1582103859</u>	<u>-1994785865</u>
9/6p.	u06uuuu	-01uuuu	u1582103859uuuu	-1994785865uuuu
10/6p.	uuu+06u	uuu-01u	uuu+1582103859u	uuu-1994785865u
11/6p.	uuu6uuuu	uu-1uuuu	uuu1582103859uuuu	uu-1994785865uuuu
12/6p.	6uuuuuu	-1uuuuu	1582103859u	-1994785865u
13/6p.	uu6uuuu	uu-1uuuu	uu1582103859uuuu	uu-1994785865uuuu
14/6p.	uuu0006	uuu-001	uuu1582103859	uuu-1994785865
15/6p.	uuuuu6u	uuuu-1u	u1582103859u	-1994785865u
16/6p.	uuu+6uu	uuu-1uu	uu+1582103859uu	uu-1994785865uu

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

- (A) `printf("uuuu%2du",x);` (D) `printf("uuu%02duuu",x);` (G) `printf("u%7d",x);`
 (B) `printf("uuuu%duuu",x);` (E) `printf("uu%u-5du",x);` (H) `printf("%u08d",x);`
 (C) `printf("uuu%+5d",x);` (F) `printf("u%+7d",x);` (I) `printf("%06du",x);`

inputs:	<u>2</u>	<u>-6</u>	<u>1385439029</u>	<u>-1975774450</u>
17/6p.	000002uu	-00006uu	1385439029uu	-1975774450uu
18/6p.	uuuuuuu2	uuuuuu-6	u1385439029	u-1975774450
19/6p.	uuu2uuuu	uu-6uuuu	uuu1385439029u	uu-1975774450u
20/6p.	u+2uuuuu	u-6uuuuu	u+1385439029	u-1975774450
21/6p.	u0000002	-0000006	u1385439029	-1975774450
22/6p.	uuu02uuu	uuu-6uuu	uuu1385439029uuu	uuu-1975774450uuu
23/6p.	uuuuuu+2	uuuuuu-6	uuu+1385439029	uuu-1975774450
24/6p.	uuuuu2uu	uuuu-6uu	uuuu1385439029uu	uuuu-1975774450uu

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

inputs:	<u>"</u>	<u>"w"</u>	<u>"hv"</u>	<u>"gfwj"</u>	<u>"jgwyhx"</u>	<u>"kkvjdyzg"</u>
25/6p.	uuuuu	wuuuu	hvuuu	gfwju	jgwyhx	kkvjdyzg
26/6p.	uuuuu	uwuuu	uhvu	ugfwju	ujgwyhx	ukvjdyzg
27/6p.	uuuuu	uuwuuu	uuhvuu	uugfwjuu	uuujgwyhxuu	uuukvjdyzguu
28/6p.	uuuuu	uuuuw	uuuhv	ugfwj	ujgwyhx	ukvjdyzg
29/6p.	uuuuu	uuuw	uuhv	uugfwju	uuujgwyhx	uuukvjdyzgu
30/6p.	uuuuu	uuwuu	uuhvuu	uugfwjuu	uuujgwyhxuu	uuukvjdyzguu

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

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

inputs:	<u>"</u>	<u>"g"</u>	<u>"jc"</u>	<u>"jcwq"</u>	<u>"gwwhvg"</u>	<u>"dpkjfxg"</u>
31/6p.	uuuuu	uuuuug	uuuuju	uuuujcwqu	uuuuwwhvgu	uuuuuujkjjfxgu
32/6p.	uuuuu	uuuuu	uuuuju	ujcwq	ugwwhvg	udpkjjfxg
33/6p.	uuuuu	uuuuu	uuuuju	ujcwq	gwwhvg	dpkjfxg
34/6p.	uuuuu	uuuuu	uuuuju	ujcwq	ugwwhvg	uuujkjjfxg
35/6p.	uuuuu	uuuuu	ujcu	ujcwqu	ugwwhvgu	udpkjjfxgu

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

- (A) `printf("_%10f",x);` (D) `printf("_%012.4f",x);` (G) `printf("%+013f",x);`
 (B) `printf("_%+012f",x);` (E) `printf("_%013f",x);` (H) `printf("%+14.0f",x);`
 (C) `printf("_%010.6f",x);` (F) `printf("_%12.6f",x);` (I) `printf("%013.6f",x);`

inputs:	<u>4</u>	<u>2.02</u>	<u>2.1156</u>	<u>-235845.549317</u>
36/6p.	uuuu4.000000u	uuuu2.020000u	uuuu2.115600u	uu-235845.549317u
37/6p.	+00004.000000u	+00002.020000u	+00002.115600u	-235845.549317u
38/6p.	uuuuuuuuuuuu+4	uuuuuuuuuuuu+2	uuuuuuuuuuuu+2	uuuuuuuu-235846
39/6p.	u004.000000uuu	u002.020000uuu	u002.115600uuu	u-235845.549317uuu
40/6p.	000004.000000u	000002.020000u	000002.115600u	-235845.549317u
41/6p.	uuuuu4.000000u	uuuuu2.020000u	uuuuu2.115600u	u-235845.549317u

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

- (A) `printf("_%10.6f",x);` (D) `printf("_%011.0f",x);` (G) `printf("%014.6f",x);`
 (B) `printf("_%12.2f",x);` (E) `printf("_%11.6f",x);` (H) `printf("%14.0f",x);`
 (C) `printf("_%+13f",x);` (F) `printf("%014.0f",x);` (I) `printf("%14.4f",x);`

inputs:	<u>9</u>	<u>-8.45</u>	<u>5.9662</u>	<u>-870103.527978</u>
42/6p.	0000009.000000	-000008.450000	0000005.966200	-870103.527978
43/6p.	uuuu9.000000uu	uuu-8.450000uu	uuuu5.966200uu	uu-870103.527978uu
44/6p.	u00000000009uu	u-0000000008uu	u00000000006uu	u-0000870104uu
45/6p.	uuuu9.000000uu	uuu-8.450000uu	uuuu5.966200uu	u-870103.527978uu
46/6p.	uuuuuuuuuu9.00	uuuuuuuuuu-8.45	uuuuuuuuuu5.97	uuuu-870103.53
47/6p.	uuuuuuuu9.0000	uuuuuuuu-8.4500	uuuuuuuu5.9662	uu-870103.5280

Total points 282.

Answer Key (points per line)

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

Total points 282.