Name:	 _ Date:	ID: A

Ch 19 Practice Test

Multiple Choice
I will not answer questions about the practice test after tutorials on the day of the test. Get your questions answered early and study early too.

1.	Which of the following is a property of an ac	id?	
	a. sour taste	c.	strong color
	b. nonelectrolyte	d.	unreactive
 2.	What is the formula for phosphoric acid?		
	a. H_2PO_3	c.	HPO_2
	b. H ₃ PO ₄	d.	HPO_4
3.	Which of these is an Arrhenius base?		
	a. LiOH	c.	$\mathrm{H_2PO_4}^-$
	b. NH ₃	d.	CH ₃ COOH
4.	What is transferred between a conjugate acid-	-base	pair?
	a. an electron	c.	a hydroxide ion
	b. a proton	d.	a hydronium ion
 5.	Which compound can act as both a Brønsted-	Lowr	y acid and a Brønsted-Lowry base?
	a. water	c.	sodium hydroxide
	b. ammonia	d.	hydrochloric acid
 6.	In the reaction $CO_3^{2^-} + H_2O \Longrightarrow HCO_3^- +$	OH-	, the water is acting as a(n)
	a. Arrhenius base	c.	Brønsted-Lowry base
	b. Arrhenius acid	d.	Brønsted-Lowry acid
 7.	Which of the following reactions illustrates a	mphot	terism?
	a. $H_2O + H_2O \rightleftharpoons H_3O^+ + OH^-$	c.	$HCl + H_2O \Longrightarrow H_3O^+ + Cl^-$
	b. NaCl \rightleftharpoons Na ⁺ + OH ⁻	d.	$NaOH \longrightarrow Na^+ + OH^-$
 8.	What are the acids in the following equilibrium	ım rea	ction?
	$CN^- + H_2O \Longrightarrow HCN + OH^-$		
	a. CN^- , H_2O	c.	CN ⁻ , OH ⁻
	b. H ₂ O, HCN	d.	$\mathrm{H_2O,OH^-}$
9.	Which of the following represents a Brønsted	l-Low	ry conjugate acid-base pair?
	a. SO_3^{2-} and SO_2		H ₃ O and H ₂
	b. CO_3^{2-} and CO	d.	NH ₄ ⁺ and NH ₃
10.	What is the charge on the hydronium ion?		
	a. 2–	c.	0
	b. 2-	d.	1+
11.	The products of self-ionization of water are	•	
	a. H_3O^+ and H_2O	c.	OH^{+} and H^{-}
	b. OH ⁻ and OH ⁺	d.	OH ⁻ and H ⁺

Name:

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12. In a neutral solution, the [H⁺] is _____.

a.
$$10^{-14} M$$

c.
$$1 \times 10^7 M$$

d. equal to [OH⁻]

13. Which of these solutions is the most basic?

a.
$$[H^+] = 1 \times 10^{-2} M$$

c.
$$[H^+] = 1 \times 10^{-11} M$$

b.
$$[OH^-] = 1 \times 10^{-4} M$$

d.
$$[OH^{-}] = 1 \times 10^{-13} M$$

14. Which of the following pairs consists of a strong acid and a strong base?

- a. hydrobromic acid, lithium hydroxide
- c. acetic acid, sodium hydroxide

b. acetic acid, ammonia

d. nitrous acid, strontium hydroxide

Multiple Response

Identify one or more choices that best complete the statement or answer the question.

- 15. Which of the following are strong acids?
 - a. hydrochloric acid

c. hydrofluoric acid

b. perchloric acid

- d. sulfurous acid
- 16. Which of the following pH values are basic?
 - a. pOH = 2

c. pOH = 12

b. pH = 8

d. pH = 11

Ch 19 Practice Test Answer Section

MULTIPLE CHOICE

1.					DIF:	L1	REF:	p. 587
2		19.1.1			DIE	т 1	DEE	5 00
2.		в 19.1.1	P15:	1	DIF:	L1	KEF:	p. 388
3		A	ptg.	1	DIE.	L1	REE.	n 589
٥.		19.1.2		Ch.5.e	DII.	Li	KLI.	p. 307
4.	ANS:		PTS:		DIF:	L1	REF:	p. 591
	OBJ:	19.1.2	STA:	Ch.5.e				•
5.				1	DIF:	L2	REF:	p. 591
		19.1.2		Ch.5.e				
6.		D		1	DIF:	L2	REF:	p. 590
_		19.1.2		Ch.5.e	DIE	T 0	DEE	502
7.	ANS:		PTS:		DIF:	L2	REF:	p. 592
o	ANS:	19.1.2		Ch.5.e	DIE.	L2	DEE.	n 501
0.		19.1.2		Ch.5.b	DIF.	LZ	REF:	p. 391
9		D		1	DIF:	12	REF:	n 591
٦.		19.1.2		Ch.5.e	DII.	LZ	KLI.	p. 371
10.	ANS:		PTS:		DIF:	L1	REF:	p. 594
		19.2.1		Ch.5.b				1
11.	ANS:	D	PTS:	1	DIF:	L1	REF:	p. 594
	OBJ:	19.2.1	STA:	Ch.5.c				
12.				1	DIF:	L1	REF:	p. 595
		19.2.1		Ch.5.d				
13.	ANS:			1	DIF:	L2	REF:	p. 597 p. 598
		19.2.2		Ch.5.d				
14.	ANS:			1	DIF:	L3	REF:	p. 609
	OBJ:	19.3.2	SIA:	Ch.5.c				

MULTIPLE RESPONSE

15. ANS: A, B PTS: 1 16. ANS: A, B, D PTS: 1