Chapter 1 and 2 Practice Test

Multiple Choice

Identify the choice that best completes the statement or answers the question.

 1.	. One difference between a mixture and a co a. a compound is made up of more than one phase			a mixture can only be separated into its components by chemical means
	b.	a mixture must be uniform in composition	d.	a compound can only be separated into its components by chemical means
 2.	A o a.	chemical reaction occurs when you open a soda bottle.	c.	substances are mixed together, such as salt mixing with sand.
	b.	substances change physical state, such as a solid turning into a liquid.	d.	substances where atoms combine together to form new molecules.
 3.	Th	e study of the composition and structure	of n	natter is the domain of which field of science?
	a.	Biology	c.	Geology

d. Chemistry

b. Physics

4.

What is the correct name of this piece of lab equipment?

- Erlenmeyer flask Wash bottle a. c. Beaker b.
 - d. Psychrometer
- 5. Which state of matter has a fixed volume?
 - a. Gas c. Liquid
 - d. Both B and C Solid b.
- 6. Which of the following is **NOT** a physical change?
 - Fermenting of cheese c. Melting of cheese a.
 - b. Slicing of cheese

1

Name: _____

 7.	All of the following changes to a metal are	phy	vsical changes EXCEPT
	a. Cutting	d.	Bending
	b. Polishing	e.	Rusting
	c. Melting		
8.	When ammonium nitrate explodes, the pro	duct	s are nitrogen, oxygen and water. When 40 grams
	of ammonium nitrate explode, 14 grams of	nitr	ogen and 8 grams of oxygen form. How many
	grams of water form?		
	a. 6	c.	21
	b. 18	d.	22
 9.	Which of the following is true for all chem	ical	reactions (law of conservation of mass)?
	a. The mass of the products is equal to	c.	The mass of the products is less than
	the mass of the reactants		the mass of the reactants
	b. The mass of the products is greater		
	than the mass of the reactants		
 10.	Which of the following lists goes in order	r fro	om the least accurate to the most accurate?
	a. beaker, volumetric pipet, graduated	c.	volumetric pipet, graduated pipet,
	pipet, graduated cylinder		graduated cylinder, beaker
	b. beaker, graduated cylinder, graduated	d.	beaker, graduated cylinder, graduated
	pipet, Erlenmeyer flask		pipet, volumetric pipet
 11.	When paper becomes yellow-brown in col	or up	pon exposure to sunlight (starts to burn), what type
	of change is likely taking place?		
	a. Chemical Change	c.	Neither
	b. Physical Change		
 12.	A chemical change occurs when a piece of	woo	od
	a. decays	c.	is split
	b. is cut	d.	is painted
 13.	Sublimation is		
	a. a chemical change in which a liquid	c.	a chemical change in which a solid
	turns to a solid	_	changes to a gas
	b. a physical change in which a liquid	d.	a physical change in which a solid
	changes to a gas		turns to a gas
 14.	The study of chemicals that, in general, do	not	contain carbon is traditionally called what type of
	chemistry?		
	a. analytical	c.	physical
	b. b10	d.	inorganic
 15.	One characteristic of a scientific theory is t	hat _	·
	a. it cannot be modified	c.	it can be proved
	b. it summarizes a set of observations	d.	it can never be proved

Name:			ID: A
16	What is the proper name for this piec	re of l	ah equipment?
10.	a. Test tube holders	с ог 1 с.	Tongs
	b. Tweezers	d.	Forceps
17.	Which state of matter is compressible?		1
	a. Solid	d.	Liquid
	b. Condensate	e.	Colloid
	c. Gas		
18.	Which of the following processes do NO	T invo	olve a change in chemical properties?
	a. Boiling	c.	Rusting
	b. Fermenting	d.	Burning
	5 4 3 2		
Yuure:	uated cylinder to the left? (Assume that the units are		
	mL) 5.2 mL	2	6.5 ml
	a. 3.5 mL b. 6.1 mI	c. d	0.5 IIIL 5 15 mI
20	All of the following are physical propertie	u. es of i	natter FYCEPT
20.	a. luster	C. C.	explosiveness
	b. mass	d.	melting Point
21.	Which of the following is NOT a physicaa. It is composed of hydrogen and oxygb. It has a boiling point of 100°C.c. Sugar dissolves in it.d. It is a colorless liquid.	l prop gen.	perty of water?
		3	



22.

What is the hottest part of the flame of a Bunsen burner?

d.

e.

c. C

В b.

Α

a.

- 23. When diluting an acid, always pour concentrated acid into water.
 - true b. false a.
- 24. In order to advance to the level of a theory, a hypothesis should be
 - a. repeatedly confirmed by c. in alignment with past theories. experimentation.
 - b. a fully functional experiment.
- 25. What is the first step of the scientific theory?
 - Reaching a conclusion d. Making an observation a. conducting an experiment
 - b. Stating a theory
 - с. formulating a hypothesis
- 26. The separation of salt and sand can be classified as a:
 - a. Physical Change b. Chemical Change
 - 27. Which of the following pairs can only be separated by physical means?
 - Mixtures to substances b. Compounds to elements a.
 - 28. Which state of matter is characterized by having an indefinite shape, but a definite volume?
 - a. gas
 - b. solid

- c. liquid
- d. none of the above

29.

a.

What is the correct name of this piece of lab equipment?

- c. Mortar and Pestle
- Chemical bowl d. Pipet b.
- 30. Matter is defined as anything that _____
 - has mass and takes up space can be weighed on a balance. a. c.
 - has a fixed volume and weight b.
- d. has a definite volume.
- 31. The difference between a scientific theory and a scientific law is that _____
 - a. a theory only summarizes observations; a law attempts to explain observations
- с. a law only summarizes observations; a theory attempts to explain observations

obviously accepted by most people.

There is no difference b.

Evaporating Dish

 32.	The variable that is ob	oserved during an experi	nent is called what type of manipulated	of variable?
	b. independent	e. d.	controlling	
33.	The simplest form of	matter that are the buildi	ng blocks for all substanc	es are called:
 	a. Elements	b.	Compounds	
 34.	A friend observes a b	urning candle and comm	ents that the matter is los	st because the wax is gone
	as the candle burns.	Knowing the law of conse	ervation of mass, is the st	atement:
	a. True	b.	False	
 35.	If a student weighs ou percent error?	tt 7.0 g of salt and the act	ual amount given of salt	is 10.0 g, calculate the
		_		
	Percent Error =	Actual Amount	- Experimental Amount	X 100
		Actual	Amount	-
	L	_		
	a. 42%	d.	30%	
	b0.3%	e.	10%	
	c. 7%			
 36.	Which of the following	ig is a heterogeneous mix	xture?	
	a. milk	с.	oil and vinegar	
	b. vinegar in water	d.	air	
 37.	This piece of equipm	ent is used to cover bea	kers or evaporation dis	hes to observe a reaction.
	a. Beaker cover	с.	Filter paper	
	b. Wire gauze	d.	Watch glass	
 38.	Which of the following	ig is true about homogen	eous mixtures?	
	a. They are known a	as solutions.		
	b. They consist of tw	vo or more phases.		
	c. They have compo	ositions that never vary.		
20	d. They are always I	iquias.	1 / / 1	
 39.	A substance that can be a_{n}	be separated into 2 or mo	re pure substances/eleme	nts only by a chemical
	a Flement		Solution	
	h Compound	u.	Homogeneous mixture	
	c. Phase	с.	Homogeneous mixture	
40	This piece of equipm	ent is used to transfer o	olid chemicals	
 10.	a. Buret		Graduated Cylinder	
	b. Scoopula	d.	Glass Stirring Rod	
41.	The left hand side of a	a reaction is called the:	C	
 	a. Reactants	b.	Products	

Name: _____

 42.	Which of the following is a heterogeneous	mix	ture?
	a. soil	c.	salt water
	b. steel	d.	air
 43.	Which of these steps should always be follo	owe	d for effective problem solving?
	a. buying a larger quantity of material tha	n es	stimated
	b. using a trial-and-error approach and the	en e	valuating
	c. developing a plan and then implementi	ng t	he plan
	d. performing metric conversions		
 44.	Which of the following CANNOT be class	ifie	d as a substance?
	a. Gold	c.	Nitrogen
	b. Corrosion	d.	Table Salt
 45.	Which of the following is NOT a pure subs	stan	ce?
	a. liquid helium	c.	Apple juice
	b. Mercury	d.	Liquid Oxygen
 46.	What happens to matter during a chemical	reac	tion?
	a. Some matter is destroyed and some is c	crea	ted.
	b. Some matter is destroyed.		
	c. Some matter is created.		
. –	d. Matter is neither destroyed or created.		
 47.	Malleability is an	1	
10	a. Extensive Property	b.	Intensive Property
 48.	A substance that forms a vapor is generally	inv	what physical state at room temperature?
		C.	gas
10	b. liquid of solid	a.	solid
 49.	In the chemical reaction in which sucrose is water, which of the following is a reactant?	s he	ated and decomposes to form carbon dioxide and
	a. heat	c.	sucrose
	b. carbon dioxide	d.	water
 50.	An example of an extensive property of ma	tter	is
	a. mass	c.	temperature
	b. pressure	d.	hardness
 51.	A copper wire changes when it is placed in	silv	ver nitrate and produces silver crystals. What type
	of change has likely taken place? The new	soli	d formed is called a
	a. Physical Change, condensate	c.	Chemical change, precipitate
	b. Physical Change, precipitate	d.	Chemical change, crystals
 52.	Which of the following is NOT a chemical	cha	inge?
	a. Food spoilage	c.	corrosion

b. explosion d. Evaporation



Multiple Response

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

- _____ 54. Which of the following changes are chemical? Choose all that apply.
 - a. Salt dissolves in water c. Water boils
 - b. A firefly emits light d. Cookies are baked
 - 55. Which of the following is a state of matter? (choose all that apply)
 - a. Colloid
 - b. Liquid

- c. Suspension
- d. Gas

Chapter 1 and 2 Practice Test Answer Section

MULTIPLE CHOICE

1.	ANS:	D	PTS:	1				
2.	ANS:	D	PTS:	1				
3.	ANS:	D	PTS:	1				
4.	ANS:	А	PTS:	1				
5.	ANS:	D	PTS:	1				
6.	ANS:	А	PTS:	1				
7.	ANS:	E	PTS:	1				
8.	ANS:	В	PTS:	1				
9.	ANS:	А	PTS:	1				
10.	ANS:	D	PTS:	1				
11.	ANS:	А	PTS:	1				
12.	ANS:	А	PTS:	1				
13.	ANS:	D	PTS:	1				
14.	ANS:	D	PTS:	1	DIF:	L2	REF:	p. 8
	OBJ:	1.1.1						
15.	ANS:	D	PTS:	1	DIF:	L1	REF:	p. 23
	OBJ:	1.3.2						
16.	ANS:	D	PTS:	1				
17.	ANS:	С	PTS:	1				
18.	ANS:	A	PTS:	1				
19.	ANS:	A	PTS:	1				
20.	ANS:	С	PTS:	1				
21.	ANS:	A	PTS:	1	DIF:	L2	REF:	p. 40
22	OBJ:	2.1.2	DTC	1				
22.	ANS:	В	PIS:	1				
23.	ANS:	A	PTS:	1				
24.	ANS:	A 1 E						
	Exper.	1.Γ						
	PTS ·	1						
25	ANS.	D	PTS∙	1				
26	ANS:	A	PTS:	1				
<u>-</u> 0. 27.	ANS:	A	PTS:	1				
28	ANS.	C	PTS	1	DIF	L1	REF	p. 41
_0.	OBJ:	2.1.3	STA:	Ch.2.d		.		L
29.	ANS:	А	PTS:	1				
30.	ANS:	А	PTS:	1				

31.	ANS:	С	PTS:	1				
32.	ANS:	А	PTS:	1	DIF:	L2	REF:	p. 22
	OBJ:	1.3.2						
33.	ANS:	А	PTS:	1				
34.	ANS:	В	PTS:	1				
35.	ANS:	D	PTS:	1				
36.	ANS:	С	PTS:	1	DIF:	L1	REF:	p. 45
	OBJ:	2.2.2						
37.	ANS:	D	PTS:	1				
38.	ANS:	А	PTS:	1	DIF:	L1	REF:	p. 45
	OBJ:	2.2.2	STA:	Ch.6				
39.	ANS:	В	PTS:	1				
40.	ANS:	В	PTS:	1				
41.	ANS:	А	PTS:	1				
42.	ANS:	А	PTS:	1	DIF:	L1	REF:	p. 45
	OBJ:	2.2.2						
43.	ANS:	С	PTS:	1	DIF:	L2	REF:	p. 28
	OBJ:	1.4.1						
44.	ANS:	В	PTS:	1				
45.	ANS:	С	PTS:	1				
46.	ANS:	D	PTS:	1	DIF:	L1	REF:	p. 55
	OBJ:	2.4.3	STA:	Ch.3				
47.	ANS:	В	PTS:	1				
48.	ANS:	В	PTS:	1	DIF:	L1	REF:	p. 42
	OBJ:	2.1.3						
49.	ANS:	С	PTS:	1	DIF:	L1	REF:	p. 53
	OBJ:	2.4.1	STA:	Ch.8				
50.	ANS:	А	PTS:	1	DIF:	L1	REF:	p. 39
	OBJ:	2.1.1						
51.	ANS:	С	PTS:	1				
52.	ANS:	D	PTS:	1				
53.	ANS:	В	PTS:	1				

MULTIPLE RESPONSE

54.	ANS:	B, D	PTS:	1
55.	ANS:	B, D	PTS:	1