## **HORT 201 Quiz File - Exam 3**

NA	ME	SIGNATURE
		01 - 3rd EXAM (s $00$ )
	Carefully mark answers on the	scantron. Only answers marked on the scantron will be graded.
1)	What is the driving force for gr a) cell division c) transpiration e) auxin	owth in size caused by cell expansion and enlargement?  b) turgor pressure d) plasmolysis
2)	Of the functions of water in pla as photosynthesis? a) solvent c) reagent e) activator	nts, which one is when water is used in a biochemical reaction, such  b) solute d) translocation medium
3)	is the amount of water v that could be held at saturation. a) specific humidity c) absolute humidity e) percentile humidity	apor in air expressed as a percentage of the amount of water vapor  b) vapor pressure d) relative humidity
4)	What type of precipitation wou upper atmosphere? a) hail only c) either hail or sleet e) snow	ld occur if condensation of water vapor occurs below freezing in the  b) sleet only d) rain
5)	In the hydrologic cycle, the conground plant parts is calleda) transpiration c) transportation e) guttation	version of liquid water to water vapor from leaves and other above  b) evaporation d) evapotranspiration
6)	Plants are very efficient in the the amount of water they need. a) true	use of the water they absorb from the soil, and they will only absorb b) false
7)	,	n plants, most of the water moves up stems through the  b) sapwood d) heartwood
8)	Guttation of liquid water from a) epidermis c) stomata e) xylem	leaves occurs through the b) petiole d) hydathodes
9)	What process creates the negativater up stems in the Cohesion a) osmosis c) respiration e) transpiration	ve pressure in leaves that is the driving force for translocation of Theory of Translocation?  b) turgor pressure d) photosynthesis

10)			g water use by urban landscapes is called			
	a) urban landscaping		desertscaping			
	<ul><li>c) aridscaping</li><li>e) zeroscaping</li></ul>	d)	xeriscaping			
11)	As humidity increases transpiration _					
ĺ	a) increases c) does not change		decreases			
12)	Which of the following is the most eff propagation?	fecti	ve method to minimize transpiration of cuttings during			
	a) spray with antitranspirants	b)	harden-off cuttings			
	<ul><li>c) place in intermittent mist system</li><li>e) all work equally well</li></ul>	d)	place in shaded location			
13)	Which outdoor irrigation system is us rows?	ed fo	or row crops where the water is channeled between the			
	a) ebb & flow	b)	drip			
	c) flood e) furrow	d)	basin			
14)	the plants absorb water through holes	in th	-			
	a) capillary mat		chapin system			
	c) ebb & flow e) flood	d)	drip			
15)	What is the name of the electric valve	use	d to turn-on and turn-off automated irrigation systems?			
	a) modulator	b)	gate valve			
	<ul><li>c) thermostat</li><li>e) solenoid</li></ul>	d)	comptroller			
16)	In a soil profile, which horizon is also called the parent material?					
	a) A	b)	В			
	c) C e) E	d)	D			
17)	An impermeable layer in the soil due	to a	high iron content is called a			
	a) hard pan	b)	plow pan			
	<ul><li>c) bedrock</li><li>e) clay pan</li></ul>	d)	heavy metal pan			
18)	Most soils of the world are (e.g	the	e most common type of soil found in nature).			
ĺ	a) mineral soil		peat soil			
	c) muck soil e) potting soil	d)	humic soil			
19)	Which type of soil is the source of the	pea	t moss used in growing media?			
/	a) mineral soil	-	peat soil			
	c) muck soil		humus soil			
	e) none are correct, peat moss is not of					

20)	The highly decomposed, fine, amorpho	us	organic matter in soil is called
	a) peat	b)	muck
	c) litter e) compost	d)	humus
21)	Which soil mineral particle contributes	the	e most to the aeration and drainage of a mineral soil?
	a) clay	b)	silt
	c) sand	d)	perlite
	e) vermiculite		
22)	Clay in soil is most effective in attracting	ıg a	and binding nutrients that are
	a) anions	b)	negatrons
	c) neutral	d)	cations
	e) positrons		
23)	College Station has poor quality water t lawn with College Station water it will		t is very high in sodium. If you repeatedly irrigate your use your soil to
	<u>c</u>		deflocculate
	•		departiculate
	e) space out		•
24)	Which component in the soil has the high	ghe	est cation exchange capacity (CEC)?
,	- · · · · · · · · · · · · · · · · · · ·	_	silt
		d)	organic matter
	e) water		
25)	My mother lives in south Louisiana and recommend my mother add to increase		e soil in her garden is a bit acid. What would you epH of her garden soil?
	•		elemental sulfur
	c) iron sulfate	d)	urea fertilizer
	e) all could be used to increase the pH		
26)	A soil has pH of 8-8.5, greater to CEC is occupied by sodium.	har	n 2,000 ppm total soluble salts, and 15% or more of the
	a) saline	b)	sodic
	c) calcitic	d)	salty
	e) saline-sodic		
27)	Which of the following organic amendr	nei	nts is the best to use for making growing media?
	a) composted sawdust	b)	bagasse
	c) sphagnum peat moss	d)	vermiculite
	e) municipal compost		
28)	Plants primarily absorb water free tension of bars.	on	n the soil, and can extract the water down to a moisture
		b)	capillary / -1/3
	, 0		capillary / -15
	e) capillary / -31		
29)	is the amount of water a soil can	ho	old against the force of gravity.
,			incipient wilting point
	· · · · · · · · · · · · · · · · · · ·		permanent wilting point
	e) field capacity		

30)	Tensiometers are instruments that are a) soil moisture tension c) nutrient content e) psychological stress	b)	erted in the soil to measure  temperature organic matter content
31)	Which will be cooler: the soil under a a) black plastic		ar plastic mulch or under a black plastic mulch? clear plastic
32)	Which of the following IS NOT a benda) increases run-off of water c) decreases weed growth e) all are benefits or uses of mulches	b)	or use of mulches? decreases water loss by evaporation stabilizes soil temperature
33)	Which of the following is an essential a) K c) Mo e) Cu	b)	ment that is naturally supplied by air or water?  Ca  C
34)	Which of the following is mobile? a) Zn c) Ca e) K		B Mn
35)	Which of the following is more availa a) P c) K e) Ca	b)	at an intermediate pH? N Mo
36)	Which of the following is the best (mo for \$10.00 a bag, or a 50 pound bag of a) the 5-10-5 fertilizer	10	economical) purchase? A 50 pound bag of 5-10-5 fertilize -15-10 fertilizer for \$15.00 a bag. the 10-15-10 fertilizer
37)	A 12-16-8 fertilizer contains N. a) 12% c) 8% e) 64%		16% 36%
38)	geraniums? (and yes my wife likes her a) 20-20-20 c) 10-20-20	gei b) d)	fertilizer for my wife to use to fertilize her flowering raniums to flower a lot) 20-10-10 20-10-5 well in causing your wife's geraniums to flower
39)	Of all the nutrients, which of the followards (Cu) Cu (C) Mn (E) S	b)	g is required by plants in the smallest quantities?  B  Mo
40)	What is the main reason why nitrate not a) because it is very soluble c) because it is volatile e) because moss don't grow on a rolling	b) d)	because it is negatively charged because it is positively charged

41)	is the conversion of organic N					
	<ul><li>a) nitrification</li><li>c) nitrogen fixation</li></ul>		denitrification nitrogen reduction			
	e) mineralization	u)	introgen reduction			
42)	Fresh pine needles have a high C:N rapine needles would	tio.	If I tilled fresh pine needles into my vegetable garden, the			
	<ul><li>a) cause the N in the soil to increase</li><li>c) cause the N in the soil to decrease</li></ul>	b)	have no effect on the N in the soil			
43)	Which of the following IS NOT an or	_	S .			
	a) Nitrobacter		Rhizobium			
	<ul><li>c) Anabaena</li><li>e) Clostridium</li></ul>	d)	some Actinomycetes			
44)	is when two organisms live to	geth	ner for the mutual benefit of each.			
	a) coexistence		mutual pairing			
	<ul><li>c) symbiosis</li><li>e) a happy marriage</li></ul>	d)	significant bonding			
45)	Which of the following is the central	aton	n in the chlorophyll molecule?			
	a) Mn		В			
	c) Mg	d)	Ca			
	e) Fe					
46)	Many nutrients are components of or nutrients that can be a component of o		vate enzymes. Which of the following is one of the tivate enzymes?			
	a) P	b)	K			
	c) Ca	d)	В			
	e) all are components of or activate en	nzyn	nes			
47)	If you have a plant that exhibits overa the older leaves, which nutrient is def		dorosis on the new leaves first, then the chlorosis moves to at?			
	a) Mo	b)	Mn			
	c) N	d)	S			
	e) Fe					
48)	Which nutrient causes witches-broom in pecans, e.g. rosetted new growth.					
	a) P	,	В			
	c) Cu	d)	Zn			
	e) Ca					
49)	If you dilute household ammonia in w					
	a) N		Mn			
	c) P		Ca			
	e) this is crazy, ammonia cannot be us					
50)	Which of the following can be used a					
	a) potassium sulfate		gypsum  Frager celt			
	<ul><li>c) superphosphate</li><li>e) all can be used as S fertilizers</li></ul>	a)	Epsom salt			

NA	ME	SIGNATURE
		<b>1 – 3rd E<u>X</u>AM</b> – (s01)
	Carefully mark answers on the	scantron. Only answers marked on the scantron will be graded.
1)	is the shrinkage of individual flaccid.  a) wilting c) plasmolysis e) deflation	dual cells due to loss of turgor pressure that causes a cell to become  b) osmosis d) shrinkage
2)	The driving force for growth in	size, by causing expansion, is
-,	<ul><li>a) osmosis</li><li>c) mitosis</li><li>e) gibberellic acid</li></ul>	b) cell division d) turgor pressure
3)	of the amount of water vapor that a) relative humidity	b) vapor pressure
	<ul><li>c) absolute humidity</li><li>e) specific humidity</li></ul>	d) barometric pressure
4)		b) increases / decreases d) decreases / increases
5)	What type of precipitation happed below freezing)?  a) hail c) rain e) fog	ens if condensation occurs below freezing (e.g. the dew point is  b) snow d) dew
6)	What is the name of the major at Antonio area?  a) Edwards c) Colorado e) Bush	quifer in central Texas that supplies much of the water for the San  b) Ogallala d) Brazos
7)	What is name of the non-function translocate water?  a) phloem c) heartwood e) suberized endodermis	nal (dead) xylem in the center of tree trunks, and which does not  b) sapwood d) xylemwood
8)	In the Cohesion Theory of translethe water to flow up stems.  a) positive	ocation, transpiration causes a pressure in leaves that causes  b) negative
9)	What part of the root absorbs me a) root tip c) root epidermis e) root hairs	b) older roots d) Casparian strip

10)	Which of the following will tend to dec	reas	se transpiration?
	a) waxy leaves		high humidity
	c) low temperature		darkness for C3 and C4 plants
	e) all will tend to decrease transpiration	n	
11)	Newly transplanted trees can be sprayed and increase their chance of survival?	d wi	th which of the following to decrease their transpiration
	a) auxin	b)	antitranspirant
	c) ethylene	d)	humectant
	e) coatifier		
12)	What is the most commonly used irriga	tion	system for turfgrass and lawns?
	a) sprinkler	b)	basin
	c) chapin tube	d)	flood
	e) drip		
13)	What type irrigation system is recomme	ende	ed for use in xeriscaping?
,	a) sprinkler		basin
	c) chapin tube	d)	flood
	e) drip		
14)	What is the name of the electrically ope	rate	ed valves used to automate irrigation systems?
	a) tensiometer		quantum sensor
	c) solenoid	d)	alternator
	e) capacitor		
15)	Which of the following irrigation systemess foliar disease?	ns k	keeps the foliage dry and thus allows the plants to have
	a) capillary mat	b)	chapin tube
	c) subirrigation	d)	none keep the foliage dry
	e) all keep the foliage dry		
16)	Which is the most fertile horizon in the	soil	?
	a) A	b)	В
	c) C	d)	D
	e) E		
17)	is an impermeable layer in the so	oil d	ue to high clay.
	a) hard pan	b)	clay pan
	c) pottery pan	d)	plow pan
	e) peter pan		
18)	A soil contains less than 20% or	gani	c matter.
	a) humic	_	muck
	c) mineral	d)	peat
	e) geologic		
19)	The highly decomposed, fine, amorpho	us o	rganic matter in soil is called
ŕ	a) humus		compostic
	c) muck	d)	peat
	e) litter		

20)	<ul><li>Which component of a mineral soil is c</li><li>a) silt</li><li>c) sand</li></ul>	b)	nically inert and adds very little to the fertility of soil? clay organic matter
21)	Which of the following is bad for soil be structure?  a) Na c) Ca e) CEC	b)	use it causes the soil to deflocculate and loose its good carbonate humus
22)	Which component of a mineral soil cor a) silt c) sand		outes the most to the water holding capacity of soil?
23)	What is the charge on clay micelles? <ul><li>a) positive</li><li>c) negative</li></ul>	b)	neutral
24)	Rank the cation exchange capacity of so a) sand > silt > clay > organic matter c) organic matter > clay > silt > sand	b)	silt > sand > organic matter > clay
25)	A pH above 7 is called  a) neutral c) buffered e) sodic		acid alkaline
26)	I tested the pH of the soil in my wife's fadd to the soil to get the soil to the recordal dolomite c) calcitic lime e) all of these would correct the pH to	b) d)	elemental sulfur fertilizers containing nitrate
27)	A has pH of 8 to 8.5, greater tha occupied by Na.  a) humic soil c) saline soil	b)	000 ppm total soluble salts, and 15% or more of the CEC is sodic soil saline-sodic soil
28)	Which of the following is an inorganic a) vermiculite c) bagasse e) iron shavings	b)	wing medium amendment used to make "potting soils"?  coir  peat moss
29)	What is the best quality peat moss, and a) muck c) sphagnum e) hypanaceous	b)	ich should be used to make growing media? domestic sedge
30)	Plants get most of their water from the a) hygroscopic water c) capillary water	b)	of the soil. gravitational water chemically combined water

31)	In summer in Texas, when soil starts go but recover overnight. This is calleda) permanent wilting		g dry, many plants will wilt in the middle of the afternoon  -  permanent wilting point
	c) incipient wilting		incipient wilting point
32)	Mulches are very good to use. However a) true		is important to only use organic mulches. false
33)	Plants can extract water out of the soil (a) -1/3 bars c) -10 bars e) -31 bars	b)	rn to a soil moisture tension of  -5 bars  -15 bars
34)	Which of the following is a macronutrica) Mo c) Fe e) Mg	b)	Mn Cu
35)	Which of the following is immobile? a) S c) N e) Ca		Mg K
36)	Which of the following is more availab a) Fe c) Ca e) K	b)	
37)	•	or \$	ollowing two fertilizers: a 50 pound bag of 10-20-10 for 9.80. From a cost standpoint, which is the most the 15-5-10
38)	I called a local nursery and they have the one would be the best to use on my law a) the 10-20-10	n to	ollowing two fertilizers: a 10-20-10 and a 15-5-10. Which of favor vegetative growth of the grass? the 15-5-10
39)	<ul><li>In the nitrogen cycle, which form of N</li><li>a) ammonium</li><li>c) nitrate</li><li>e) all are equally absorbed</li></ul>		ne major form taken up by plants? nitrite ammonia
40)		y hig nd in V tha	at is already in your soil
41)	<ul><li>Which of the following nitrogen -fixing</li><li>a) Azotobacter</li><li>c) Rhizobium</li><li>e) Anabaena</li></ul>	b)	croorganisms is a blue-green algae? Clostridium Actinomycetes

42)	together?	iddl	e lamella of cell walls and helps cement adjacent cells
	a) Cu c) Mg		Ca Zn
12)	e) N Which nutrient is a component of nucle	oio o	oids in DNA and DNA?
<del>4</del> 3)	Which nutrient is a component of nucle a) P		B
	c) S e) K		Mo
44)	Which term means yellowing of leaves	?	
	a) interveinal	b)	jaundice
	<ul><li>c) chlorosis</li><li>e) necrosis</li></ul>	d)	yellowing
45)	Which nutrient is needed by plants in the	he si	mallest quantities?
	a) Fe	b)	В
	c) Cu e) Mo	d)	Zn
46)	Witches broom is an abnormality of pe Which nutrient?	can	trees in Texas that is caused by a nutrient deficiency.
	a) N		В
	c) Zn e) Mn	d)	Ca
47)	If a plant exhibits overall chlorosis of t	he o	lder leaves, which nutrient is likely deficient?
	a) Mo	b)	N
	c) Mn e) Mg	d)	K
48)	Which of the following can be both a M	Лgа	and a Ca fertilizer?
	a) urea	b)	Epsom salt
	<ul><li>c) gypsum</li><li>e) dolomite</li></ul>	d)	superphosphate
49)	Which of the following CANNOT be a	ppli	ed as a chelate?
	a) Fe	b)	Mn
	c) Cu e) Zn	d)	В
50)	Which of the following is the source of		
	a) carbon dioxide		water
	<ul><li>c) oxygen</li><li>e) soil mineral particles</li></ul>	d)	air pollution

<b>N</b> A	AME	SIGNATURE
	He	ORT 201 - 3rd EXAM (f01)
	Carefully mark answers on the sca	antron. Only answers marked on the scantron will be graded.
1)	is the amount of water vapor that could be held at saturation. a) specific humidity c) absolute humidity	<ul><li>in the air, expressed as a percentage of the amount of water vapor</li><li>b) vapor pressure</li><li>d) barometric pressure</li></ul>
	e) relative humidity	a) barometre pressure
2)	-	ure decreases with increasing altitude and its relative humidity as dew point, water condenses into small water droplets that stay brining b) increases / dew d) increases / clouds
3)	What type of precipitation occurs if temperature and the dew point are be a) snow c) hail e) mist	water condenses in the upper atmosphere when both the air elow freezing?  b) rain d) sleet
4)	The loss of water from leaves is call a) condensation c) precipitation e) transpiration	ed b) evaporation d) evapotranspiration
5)	The cycling of water through the earthe earth's subsurface is called the _a) evapotranspiration cycle c) condensation cycle e) nitrogen cycle	th's environment between the atmosphere, the earth's surface and b) evaporation cycle d) hydrologic cycle
6)	In woody stems, most of the water is a) phloem c) veins e) endodermis	b) sap wood d) heart wood
7)	Most of the water lost by leaves occur a) epidermis c) lenticels e) stomata	urs through the b) cuticle d) hydathodes
8)	The secretion of liquid water by leav	ves is called

b) transpiration

d) secretion

e) there is no correct answer because plants never secrete liquid water

a) guttation

c) translocation

9)	Which of the following IS NOT a reason hairs?	n why most of the water absorbed by roots occurs through root
	<ul><li>a) they are numerous</li><li>c) they have a large total surface area</li><li>e) all are reasons why root hairs absorb</li></ul>	, , , , , , , , , , , , , , , , , , ,
10)	This positive pressure in the roots is the through the stems and into the leaves.	nd into the roots, which causes a positive pressure in the roots. driving force for translocation of water up from the roots
	a) true	b) false
11)		t species through plant breeding that had minimum ironments, then which of the following plant characteristics
	<ul><li>a) hairy leaves</li><li>c) small leaves</li><li>e) all decrease transpiration and should leaves</li></ul>	b) waxy leaves d) horizontally oriented leaves be selected for
12)	As relative humidity increases, transpira a) decreases	tion b) increases
13)	Chemicals that can be sprayed on leaves a) antitranslocatants c) antiperspirants e) antitranspirants	to decrease transpiration are called b) antidesiccants d) surfactants
14)	Cranberry orchards often are irrigated by also be used for frost protection.  a) true	y flood irrigation. During the winter, the flood irrigation can b) false
15)	Which of the following is a disadvantag a) can automate and irrigate sections c) can be used for frost protection e) none are disadvantages, they are all ac	b) can be used for evaporative cooling d) causes more foliar disease
16)	Which of the following greenhouse irrig water is drawn up through holes in the b a) sprinkler c) chapin (spaghetti) tube e) wick system	gation systems places the pots on an absorbent material and ottom of the pot?  b) capillary mat d) diaper system
17)	A good, rich, loam field soil is excellent a) true	to use as a potting soil for growing plants in containers. b) false
18)	The most fertile horizon in the soil is the a) A c) C e) E	e horizon. b) B d) D
19)	If you determine that the soil in your gar a) muck c) mineral	rden has 2% organic matter, then which soil type do you have? b) peat d) organic

20) Which is the smallest mineral parti	icle in soil?
a) silt	b) sand
c) loam	d) clay
a) stabilizes pH	function or advantage of organic matter in soil? b) increases drainage
<ul><li>c) stabilizes structure</li><li>e) all are functions or advantages of</li></ul>	d) always supplies nutrients upon decay of organic matter
22) Clay is made up of flat, pancake-li nutrients, which gives clay a high (a) true	ke micelles that are covered with positive charges that attract cation exchange capacity.  b) false
23) Which soil mineral particle tends t capacity of soil?	o increase aeration and drainage of soil, but decreases water holding
a) silt	b) clay
c) sand	d) organic matter
24) Which soil component has the high	nest cation exchange capacity?
a) silt	b) clay
c) sand	d) organic matter
25) Which of the following chemicals	can be added to the soil in my garden to decrease its pH?
a) dolomite	b) elemental sulfur
c) calcitic lime	d) hydrated lime
e) none will decrease soil pH	
26) Which soil type has a pH of 7-8.5	and has greater than 2000 ppm total soluble salts?
a) sodic	b) salty
c) saline	d) saline-sodic
27) Which of the following is a commo	only used organic growing medium amendment.
a) perlite	b) vermiculite
c) styrofoam	d) peat moss
e) none are organic, all are inorgan	ic amendments
28) Which growing medium amendme	ent is made from sugar cane pulp?
a) sphagnum	b) coir
c) bagasse	d) sludge
e) hadite	
29) Which form of soil water is absorb bars or less?	sed onto soil particles and is held at a soil moisture tension of -31
a) hygroscopic	b) chemically combined
c) gravitational	d) capillary
30) The amount of water a soil can hol	d against the force of gravity is called
a) gravitational capacity	b) hydrologic capacity
c) permanent capacity	d) water capacity
e) field capacity	
31) is when a plant wilts, and ca	annot recover when placed in a saturated atmosphere.
a) permanent wilting	b) permanent wilting point
c) incipient wilting	d) incipient wilting point

32) Will soil get hotter under a a) clear plastic	clear plastic mulch or under a black plastic mulch? b) black plastic
33) How many essential elemental a) 17 c) 8 e) 3	ts are needed by plants? b) 14 d) 6
34) Which of the following is a a) P c) Cu e) Mg	micronutrient? b) Ca d) K
35) Which of the following is n a) Mn c) Cu e) B	ore soluble, and hence, available in soils at a high pH?  b) Mg d) Zn
36) A deficiency of nutral a) immobile	ents occurs on the new leaves first. b) mobile
<ul><li>37) Which of the following is i</li><li>a) Mo</li><li>c) N</li><li>e) P</li></ul>	mmobile?  b) Mg d) K
38) A garden center has two fer bag of 15-15-15 for \$5.00. a) the 10-10-10 fertilizer	tilizers on sale; one is a 50 lb bag of 10-10-10 for \$4.00 and one is a 50 Which is the best buy?  b) the 15-15-15 fertilizer
39) A 18-6-12 fertilizer contain a) 18% c) 12%	b) 6% d) 36%
<ul><li>a) 18-6-12</li><li>c) 20-10-10</li><li>e) it does not matter, all wo</li></ul>	iums, which of the following fertilizers would be the BEST to use?  b) 10-10-10 d) 10-30-30 ald be equally effective led by plants in the largest quantities?
a) Fe c) Mo e) B	b) Zn d) Cu
42) A deficiency of caus as it gets more severe.  a) N c) S e) Ca	es overall chlorosis of the new leaves first, but then spreads to older leaves b) Mo d) Fe
43) A deficiency of caus a) Fe c) K e) Zn	es interveinal chlorosis of young leaves, and never results in necrosis.  b) Mn d) Mg

44) Epsom salt can be used as a fertil	lizer.
a) Ca	b) N
c) Mn	d) Mg
e) B	, ,
45) Urea can be used as a fertilizer.	
a) P	b) B
c) Mg	d) N
e) Ca	
46) is the conversion of N in organic r	natter to ammonium.
a) nitrification	b) ammonification
c) denitrification	d) nitrogen fixation
47) The bacterium in the soil that converts r	nitrite to nitrate is called
a) Nitrosomonas	b) Anabaena
c) Nitrobacter	d) Clostridium
e) Azolla	
48) Straw has a high C:N ratio, and if you is	ncorporate straw into your garden it will the soil N.
a) increase	b) decrease
49) Which of the following microorganisms	s forms a symbiotic relationship with legumes, such as
soybean, and fixes atmospheric nitroger	1.
a) Azotobacter	b) Rhizobium
c) Anabaena	d) Nitrosomonas
e) Actinomycetes	
	m 0.2-6% of their dry weight, whereas micronutrients are 01-0.003%) of their dry weight. Therefore, macronutrients are s than micronutrients.  b) false
<i>a)</i> true	o) inise

NA.	ME	SIGNATURE
		3rd EXAM – (f00) ntron. Only answers marked on the scantron will be graded.
1)	Herbaceous plants are water. a) 45-55% c) 65-75% e) 85-95%	b) 55-65% d) 75-85%
2)	If an individual cell looses water, its size. This is called  a) plasmolysis c) lysis e) wilting	b) deflation d) ungrowth
3)	is the amount of water vapor a) relative humidity c) dew point e) vapor pressure	<ul><li>in air expressed as grams of water per kilogram of air (g/kg).</li><li>b) absolute humidity</li><li>d) specific humidity</li></ul>
4)	What type of precipitation occurs if atmosphere and the condensate falls a) sleet or hail c) rain or drizzle e) fog	condensation occurs at temperatures above freezing in the upper s directly to the ground?  b) snow d) dew
5)	In the hydrologic cycle, how is water a) precipitation c) vaporization e) run-off	b) evapotranspiration d) condensation
6)	Aquifers are very important sources a) true	of water for many areas of the country. b) false, the water is too difficult to get out
7)	-	of water into the roots, through the stems, into the leaves, then out g would NOT be a major part of the pathway?  b) suberized endodermis d) xylem of veins in leaf
8)	During guttation, the liquid water is <ul><li>a) stomata</li><li>c) plasmodesmata</li><li>e) cuticles</li></ul>	lost through structures called b) lenticels d) hydathodes
9)	<ul><li>In the Cohesion Theory of transloca</li><li>a) absorption</li><li>c) turgor pressure</li><li>e) vapor pressure</li></ul>	tion, what is the driving force that allows translocation to occur?  b) osmosis d) transpiration
10)	A leaf that is vertically orientated w orientated.	ill have a lower transpiration rate than a leaf that is horizontally

b) false

a) true

11)	C3 plants open their stomata during the or hot it gets. a) true	•	y, and will keep them open all day regardless of how bright false
12)	,		ing to minimize water use in urban areas?
12)	a) urban landscaping	-	dryscaping
	c) xeriscaping		conservation landscaping
	e) earth day landscaping		
13)	Rice is grown in south Texas in flooded levees. What type of irrigation is this?	l pa	tties where the land is divided into sections with contoured
	a) sprinkler	b)	contoured
	c) terraced	d)	flood
	e) basin		
14)	· · · · · · · · · · · · · · · · · · ·		with the use of time clocks that turn on and off irrigation line. What are these electrically controlled
	a) solenoids	b)	alternators
	c) capacitors	d)	modulators
	e) transformers		
15)	Which greenhouse irrigation system set and the plants absorb water from the pa a) ebb & flow	d th	-
	c) Chapin tube	d)	capillary mat diaper system
	e) pad system	u)	diaper system
16)	Which of the following do plants NOT	abs	orb or obtain from the soil?
10)	a) water		nutrients
	c) oxygen		they do not absorb/obtain any of these from soil
	e) they absorb/obtain all of these from		· · · · · · · · · · · · · · · · · · ·
17)		le, a con b)	d to level the lot before building. Which horizon in the and make sure it is spread back on the top around my astruction is finished?  B D
	e) there is no correct answer, because a	you	cannot save and spread separate horizons
18)	Heavy pedestrian or construction traffic This happens because		n have drastic effects on soil and therefore plant growth.
	a) causes soil to flocculate		grinds sand down to smaller particles
	c) breaks the fragile clay micelles		physically kills microorganisms in the soil
	e) large pores collapse over time, suffe	ocat	ing roots
19)	in color and have a rich earthy smell, is	cal	
	a) dark vadar		amorphite
	c) litter	d)	humus
	e) organite		

20)	Place the soil inflieral particles in order	, 110	oni largest to smallest in size.
	a) clay > silt > sand	b)	sand > silt > clay
	<ul><li>c) clay &gt; sand &gt; silt</li><li>e) silt &gt; sand &gt; clay</li></ul>	d)	sand > clay > silt
21)	Which type of soil contains the highest	con	tent of organic matter?
/	a) peat		muck
	c) mineral		humoid
	e) sodic		
22)	<del>-</del> -		he soil contains a high level of mineral nutrients attached that it will have a high level of fertility, assuming the CEC
	a) true	b)	false
23)	Continually adding to a soil thro the soil to	ugh	the use of poor quality irrigation water will tend to cause
	a) Na / flocculate	b)	Ca / deflocculate
	c) Na / deflocculate		N / deflocculate
	e) K / flocculate	/	
24)	Which of the following is the definition	n of	cation exchange capacity (CEC)?
	a) negative log of H ion concentration		
			d) % organic matter
	e) pounds cations per acre		
25)	Which soil particle contributes the mos	t to	the drainage of a mineral soil?
	a) silt	b)	sand
	c) clay		
26)	Basic soils usually occur in areas of		
	a) lower rainfall		higher rainfall
27)	If you have your garden soil tested and could you add to decease the soil pH?	it re	eveals that your soil pH it too high, which of the following
	a) dolomite	b)	a high nitrate fertilizer
	c) gypsum	d)	a chelate fertilizer
	e) elemental sulfur		
28)	-	dera	ate salts, but 15% or more of the CEC (cation exchange
	capacity) is occupied by Na. a) saline soil	<b>b</b> )	loam soil
	c) sodic soil		saline-sodic soil
	e) muck soil	u)	same-sourc son
29)	If you use field soil (e.g. a mineral soil) will be	to 1	fill your containers to grow your house plants, the drainage
	a) increased and acceptable	h)	decreased and unacceptable
	c) stay the same, and thus the plants w	,	<u>*</u>
30)	Which is the best type of peat moss to u	ıse t	to make growing media?
,	a) composted peat		muck peat
	c) domestic peat	,	sphagnum peat
	e) Texas peat	,	- -

31)			portant in supplying the water that plants use?
	<ul><li>a) hygroscopic water</li><li>c) chemically combined water</li></ul>		gravitational water capillary water
	e) Perrier water		
32)		nen a p	plant wilts, but cannot recover when placed in a saturated
	atmosphere.	L)	in siniant within s
	<ul><li>a) permanent wilting</li><li>c) permanent wilting point</li></ul>		incipient wilting incipient wilting point
	e) terminal wilting point	u)	merpiene whemg point
33)	What is the name of the instrument the tension so you know when to irrigate		n be inserted into the soil to measure the soil moisture
	a) photometer		solenoid
	<ul><li>c) quantum sensor</li><li>e) tensiometer</li></ul>	d)	moistometer
34)	,	nlasti	c, which would be the best to use during the summer to
51)	keep the soil under the mulch the coo	-	e, which would be the best to use during the summer to
	a) clear plastic		black plastic
	c) neither, both get too hot so plastic	e mulc	ches should never be used
35)	Which of the following nutrients is a	micro	onutrient?
	a) Cu	b)	
	c) Mg e) N	d)	Ca
36)	Which of the following nutrients is m	nobila	2
30)	a) Zn		В
	c) Mg		Fe
	e) Cu	/	
37)	Which of the following nutrients is m	nore a	vailable in the high pH soils of west Texas?
	a) Mn		Mo
	c) B e) Fe	d)	Cu
38)	,	e a 50	pound bag of 13-13-13 fertilizer for \$9.20 and a 50 pound
	± • • • • • • • • • • • • • • • • • • •		n is the "best" or "most economical" purchase (when
	considering only the nutrient content		
	a) the 13-13-13 fertilizer	b)	the 10-20-10 fertilizer
	c) they are both equal in value		
39)	What type of growth would be favore	•	
	a) flowering a) neither would be fevered, both ye		vegetative growth ve growth and flowering would be good
40)		_	
40)	In the nitrogen cycle, what is the conva) nitrogen fixation		n of ammonium to nitrate is called'? denitrification
	<ul><li>a) nitrogen fixation</li><li>c) ammonification</li></ul>		chelation
	e) nitrification	ω)	

41)	A recycling business in town sells compose you tilled it into your flower beds, it would a) use up the nitrogen in the soil, thus can b) release nitrogen to the soil, thus act as	d _ use	e a nitrogen deficiency
42)	· /	) (	fixing microorganism? Clostridium Nitrosomonas
43)	· /	)	by plants in the largest quantities? Mn Mo
44)	a) Ca	) .	I with either amino acids, proteins or enzymes? P Cu
45)	succulent? a) B b)	) ]	ew leaves to be thick and brittle, and appear somewhat P Zn
46)	healthy, but it does not grow much (the pea) N by		P
47)	· • • • • • • • • • • • • • • • • • • •	)	fur fertilizer? Epsom salt potassium sulfate
48)		) ;	Mo S
49)	, <b>3</b>	) (	eaves? chlorosis necrosis
50)		) ;	a/an? anion electron