

Name _____

Date _____

Soil and Water Resources

Exam (50 points possible)

Matching: Match terms in Column A with definitions in Column B. (1 point per question)

Column A	Column B
___ 1. Parent material	a. Ponds, lakes, and streams
___ 2. Soil texture	b. The size of soil particles
___ 3. Humus	c. The zone characterized by air pockets between soil particles
___ 4. Eutrophication	d. The gradual breakdown of rock into soil particles
___ 5. Weathering	e. The ingredients of soil before they are broken down
___ 6. Surface water	f. Water is trapped in porous rocks; wells are drilled here
___ 7. Groundwater	g. Moisture returning to the earth in the form of rain or snow
___ 8. Aeration	h. Results in increased algal growth
___ 9. Meteoric water	i. Material which nourishes and supports plants
___ 10. Soil	j. Gives topsoil its color
	k. Water returned to the earth

Column A	Column B
___ 11. Accelerated erosion	a. The accumulation of sand particles by the wind
___ 12. Splash erosion	b. The gradual removal of topsoil
___ 13. Sheet erosion	c. Large ditches are formed
___ 14. Wind erosion	d. The action of raindrops on bare soil
___ 15. Gully erosion	e. Increased rate of erosion because vegetation has been cleared away
	f. Soils particles are blown by wind from their original location

Multiple Choice: *Circle the best answer. (1 point each)*

16. What percent of the average soil is organic matter?
- 45%
 - 5%
 - 25%
 - 10%
17. Which of the following is the best description of Class I land?
- Moderately good land that can be cultivated and farmed regularly but has some important limitations
 - Land that may be in a frequent floodplain
 - Very productive land that can be cultivated with minimal erosion control measures
 - Land that may be severely steep, greater than 30% slope, with several eroded gullies
18. A soil conservation practice of planting new crops into the stubble of the previous year's crop and using herbicides rather than tilling to control weeds is called:
- Contour farming
 - Strip cropping
 - Wind breaking
 - No-till farming
19. Which of the following soil is the best for plant growth?
- Sandy soil
 - Clay
 - Gravel
 - Loamy soil
20. The hydrologic cycle receives its energy from:
- shifts in ocean tides
 - solar radiation (i.e., the sun)
 - geothermal radiation (i.e., the earth's core)
 - lunar movement patterns (i.e., the moon)
21. The largest amount of usable water found on earth is used for:
- Industrial uses
 - Household use
 - Crop irrigation
 - Recreation
22. Which of the following is **not** an example of point source pollution?
- a downstream fish kill
 - an above ground tank leak
 - accidental manure spill
 - a lagoon overflow

23. The average American uses _____ gallons of water per day
- 90
 - 150
 - 170
 - 200
24. Very sandy soils are not good for agriculture because of their poor:
- Water-holding capacity
 - Aeration
 - Workability
 - pH
25. Living organisms in soil generally have the following effect:
- Reduce soil aeration and infiltration
 - Diminish overall fertility
 - Act as decomposers and add humus to the soil
 - All of the above
26. Why is salinization of soils a “bad” thing for cropland?
- It decreases the amount of water available to plants
 - It decreases crop yields per acre
 - It can lead to desertification
 - All of the above

Short answer: *Answer each of the following questions.*

27. List and briefly describe the three main soil horizons. (6 points)
28. List six of the twelve characteristics that are used to classify soils. (3 points)
29. Define thermal and radioactive pollution, and describe a control method that goes with each. (4 points)

30. Draw and label the water cycle, using arrows to indicate directions of processes.
Use the provided word bank for labels. (11 points)

Evaporation	Water vapor	Soil water	Transpiration
Percolation	Runoff	Groundwater	Precipitation