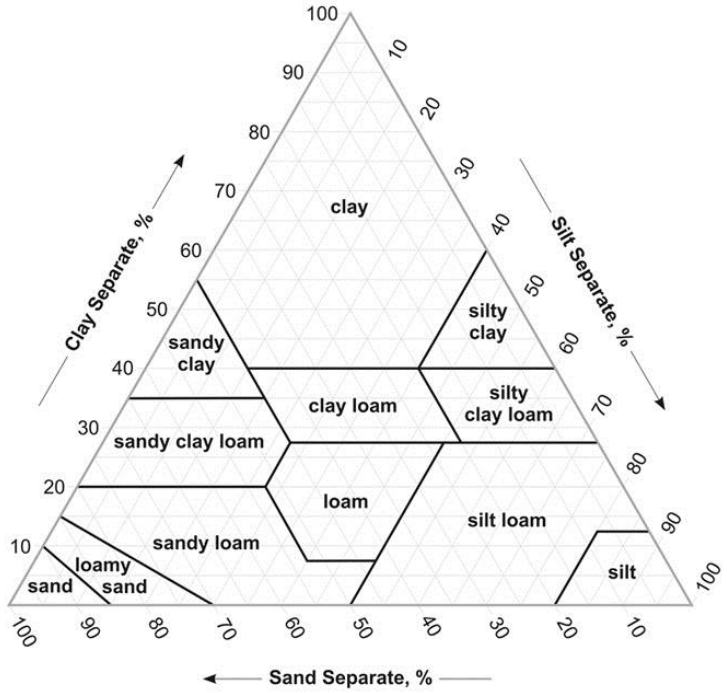
FORM D

GEOGRAPHY 1114 NAME_____
LABORATORY FINAL EXAM Teaching Assistant_____
FALL 2014 Lab Meeting Time_____

Place all answers on the answer sheet; 2 points per question

FORMULAS			
PPT = (PET-D) + S ± Δ SOIL			
G = V ÷ H	Q = V • A	RI = (N + 1) ÷ M	1 mi = 62,500 in

1. If one sieves 200 grams of soil and finds the following weights, what is the texture of the soil?: Sand 60 grams; Silt 70 grams; Clay 70 grams
A. Loamy sand
B. Silty clay loam
C. Sandy clay
D. Clay loam
E. Silt loam



2. Stream gradient was calculated through the use of a _____ in the Streams and Runoff investigation.
A. stream velocity
B. 3-D effect
C. stereoscope
D. map measurer
E. 100-year floodplain boundary

3. The following data are from a spot along a stream flowing through Ovando Hollow. Discharge is 40 cubic meters per second. The stream flows at 2 meters per second. What is the cross-sectional area (meters squared) of the stream at that spot?
A. 0.05
B. 5
C. 20
D. 40
E. More data are needed

4. Of the following, which is used to determine soil texture?
A. soil structure
B. opticon
C. soil depth
D. erodibility
E. sieve

5. In air photo analysis, a stereopair is composed of
A. photographs eliminating parallax
B. overlapping photographs
C. a stand containing two magnifying lenses
D. color photographs
E. a stereoscope with a thumb widget

6. Which of the following is FALSE on a vertical aerial photograph?
A. Tall objects appear to lean outwards from the center
B. The RF is the same anywhere on a single aerial photo
C. Aerial photos are commonly used by physical geographers
D. Features can be identified using principles of object recognition
E. Some aerial photos show landforms very well

7. On topographic maps, crenulation V's can determine _____ .
A. direction of stream flow
B. stream discharge
C. position of township and range boundaries
D. the runoff coefficient
E. the type of land use

8. Look at the photograph below; it is of part of Stillwater. From the list below, what is the most likely RUNOFF COEFFICIENT associated with this area of single family dwellings?
A. 1.50
B. 1.10
C. 0.90
D. 0.40
E. 0.10

9. In 1959, the notorious Wu Creek reached a stage of 32 feet. This was the sixth highest recorded stage in 89 years of recorded discharges. Calculate the recurrence interval (years) of a flood of this size on Wu Creek.
A. 474
B. 192
C. 89
D. 15
E. approximately 5.3

10. According to the Vegetation investigation, geographic distributions of plants are the ***result of*** the "holocenotic environment" meaning
A. all environmental factors in combination
B. the distribution of rainfall
C. the occurrence of plant diseases
D. the geography of biomes
E. the distribution of fauna

11. Quantitative soil limitation numbers are in use in the United States. When planning development, a developer would be wise to check the quantitative limitation rating for each soil. Which of the following could be a number indicating the MOST limitation for the placement of septic tanks?
A. -10.00
B. 0.00
C. 1.00
D. 10.00
E. 100.00

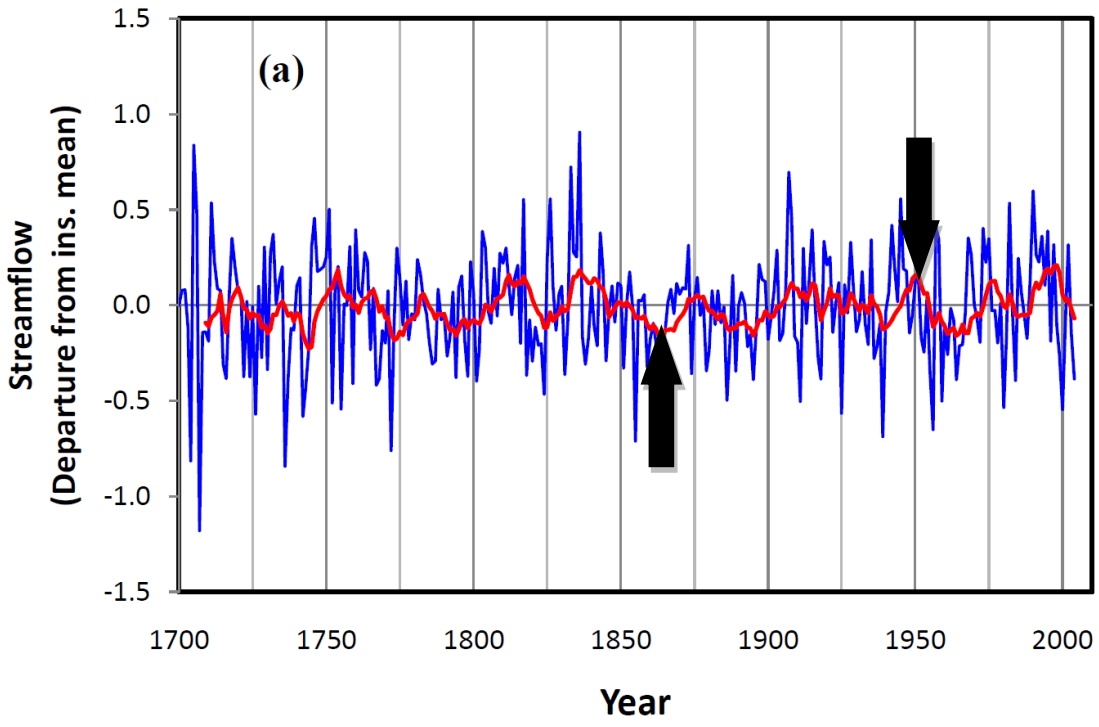
12. Which of the following was NOT identified as a principle of object recognition in the *Lab Manual*?
A. shape
B. shadow
C. texture
D. size
E. parallax

13. We are able to see some aerial photographs in 3-D because of
A. shape
B. shadow
C. texture
D. size
E. parallax

14. Over a distance of 5 miles, Ben's River drops in elevation from 3,500 feet to 500 feet. What is the stream gradient in feet per mile?
A. 3
B. 6
C. 60
D. 600
E. Not enough information provided to solve for gradient.

15. The Kimmi-poo River has a cross sectional-area of 30,000 square feet. The discharge of is 90,000 cubic feet per second. What is the velocity of the creek in feet per second?
A. 30,000
B. 3,000
C. 300
D. 30
E. 3

16. The line indicated in the graph below helps us to make sense of the variations shown in a stream's departure from its mean flow. The line of interest is the one closest to the tip of the arrows. It is known as a(n)
A. average
B. polynomial expression
C. moving average
D. tree ring index
E. none of the above



17. In the stream table demonstration in lab, which of the following was NOT evident?
A. Sand dune formation
B. Knickpoint erosion
C. The building of a stream delta
D. A curved channel
E. Sorting of sand grain sizes

18. The Cross Timbers ecoregion in which Stillwater lies is described by all of the following EXCEPT
A. tall trees (> 30 m) heavily harvested for lumber
B. the western limit of many mammal and insect species
C. oaks on the more porous soils
D. a mix of savannah, woodland, and prairie
E. low hills

19. The aerial photograph below is about 1.5 mile across. Given the texture, shape, and size of the large feature dominating the photo, what is the feature?
A. sink hole
B. cinder cone
C. haystack topography
D. alluvial fan
E. landslide

20. Consider any single location during a month. 100 millimeters is the soil moisture capacity. If precipitation exceeds potential evapotranspiration and the soil moisture storage started the month at 100 millimeters the condition is categorized as
A. a surplus
B. a deficit
C. a positive water budget
D. soil moisture utilization
E. soil moisture recharge

21. In Kano, Nigeria (12°N). The month of ***JULY*** represents which of the following soil moisture conditions? ALL NUMBERS ARE IN MM. THE SOIL MOISTURE CAPACITY IS 100 MM.

A. Soil moisture surplus
B. Soil moisture deficit
C. Soil moisture recharge
D. Soil moisture utilization
E. Soil moisture exchange

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
PPT	0	5	15	25	100	160	250	280	240	110	10	172	1112
PET	150	160	175	180	140	130	125	120	130	140	150	16	559
PPT-PET	-150	-155	-160	-155	-40								
SOIL	0	0	0	0	0								
ΔSOIL	100	0	0	0	0								
DEFICIT	50	155	160	155	40								
SURPLUS	0	0	0	0	0								

KANO, NIGERIA SOIL MOISTURE CAPACITY 100 MM

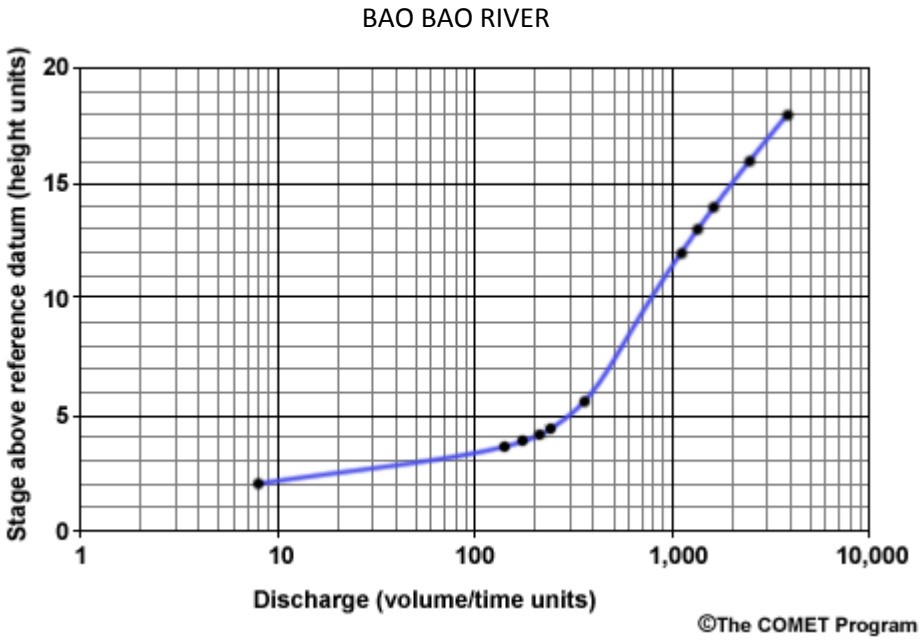
22. Which of the below is a geographically extensive soil order of **western** Oklahoma as shown in lab?

A. Oxisols
B. Podsols
C. Andisols
D. Mollisols
E. Ultisols

23. The 100-year floodplain is the area near a stream which has a flood frequency of 1 in 100 years at its outer boundary. 100-year floodplains are mapped and regulated by this Federal agency:

A. NSA
B. USGS
C. USDA
D. FDA
E. FEMA

24. You used a graph similar to the one below in the Streams Stages and Floods investigation to draw a curve for the Cimarron River. The curve for the Bao Bao River (below) is a _____ curve.
A. flooding
B. streamlog
C. recurrence
D. rating
E. log-log



25. In the Soils Geography investigation you evaluated the soils at a location in southern Oklahoma in terms of the numerical limitations. Which of the below is best descriptive of your findings?
A. It was impossible to drill a well
B. The steep slopes were an important limitation
C. The investigation asked you to choose soils for a cattle feedlot
D. All soil series had the low limitation numbers
E. The soils were mainly too swampy