Sample Questions for Tests of GEOG380

Q. The size of which body of water is most distorted on a Mercator projection?
a) Lake Michigan
b) Arctic Ocean
c) Bay of Bengal (which is on India's east coast)
d) Atlantic Ocean
e) Mediterranean Sea

Q. The distance between two known points on a map is 20 miles. What is the scale of a map on which the points are 1.584 inches apart? (There are 63,360 inches in a mile). Show all work for complete credit.

Q. Which case has potentially less distortion on projections, the tangent or secant case? Motivate your answer.

GEOG380 Fall 2018 Name: _____

Q. What is the total number of degrees of longitude in the southern hemisphere of the Earth?
a) 45
b) 90
c) 180
d) 270
e) 360

Q. Convert the latitude/longitude location of (11.65°, -43.5°) to Degrees, Minutes, and Seconds and label appropriately. Show your work.

Q. Terminology quiz

Provide the correct term (use word bank below) to the following definitions
[2 points each]

a) _____ the term used to describe the true shape of the earth without referring to a mathematical model

b) _____ the scale of the reference globe

c) _____ a projection that preserves distance

Word bank
Azimuth reference maps chart
Loxodrome graticule projection aspect
Geoid symbol dimensions nominal scale
Meridian map projection systematic sampling
antipodal point conformal continuous
ellipsoid classification equidistant
discrete equivalent azimuthal
generalization indicatrix sexagesimal
symbolization census scale factor
population

Worksheet 1 – Measure of central tendency and dispersion

(Please use this file to answer the questions and submit **either a hard copy to the instructor** or **a digital copy to the "WS1" dropbox on the BeachBoard.)**

Assigned date: 9/4/2018 **Due date:** Start of Class, 9/11/2018
Grading: 30 points (3% of total points of the course)

Instructions for Q1 and Q2
Based on lecture notes 03_1&03_2, chapter 3 pp.51-52, answer the following two questions.

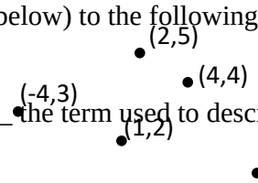

Figure 1. Point objects of "set A" (map not to scale)

1. What is the mean center of the given points of set A in Figure 1? Show ALL of your work for full credits. [10 points]
2. What is the standard distance of the given points in Figure 1? Show ALL of your work for full credits. Use the formula below to answer the question. [15 points]
   If you have another set of points, say set B, and if the standard distance of the set B is 4, is the set A more compact or dispersed than set B? [5 points]

$$d = \sqrt{\frac{\sum_{i=1}^{n}\left(\left(x_i - \mu_x\right)^2 + \left(y_i - \mu_y\right)^2\right)}{n}}$$