


Course No: Civil 4320  
 Course Title: Int. to GIS  
 Date: 17/ 09/ 2014  
 No. of Questions: 5 (closed Book)  
 Time: 2 hours.  
 Using Calculator (No)

University of Palestine  
  
 Summer Semester  
 2014/2015  
 Total Grade: 80

Instructor: Eng. Islam Falouji  
 Student No.: \_\_\_\_\_  
 Student Name: \_\_\_\_\_  
 College Name: Engineering  
 Dep. / Specialist: \_\_\_\_\_

**First question:**

**Specify whether the following statements are True (T) or False (F). (20 Points)**

Q	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Ans																					

1. In GIS, data check and repair for spatial data shall be done automatically in all circumstances.
2. When associating attributes, spatial data table shall contain a field that is called foreign key identical to the properties of the primary key in the attributes table.
3. Single point is represented by a group of interconnected cells in raster dataset.
4. Complex images are better to be manually digitized;
5. Best representation of Qualitative Data in thematic maps is by gradual color tone.
6. Undershoot refers to the error when a line end stops before touching the edge of another line it is supposed to be touching.
7. Proximity functions include Identity function.
8. Attributes can be associated only to vector data.
9. When using Neighborhood function, we need to specify: extent, neighborhood definition, function.
10. The raster data is referred to as tessellation.
11. Latitude is the angle measured from the equator to any point on the surface with its origin at the centre of the earth.
12. Minimal bounding box of any square is identical to the square itself in all circumstances.
13. Shape File is an open file format.
14. It is known that Shape File format employs Spaghetti Vector Data model.
15. Geoid is considered as the best reference datum since it can be easily modeled.
16. For local coordinate systems Israel Grid is similar to Palestine Grid except for false northing.
17. Location-based analysis on cell scale in raster data is performed on a point that is called reference point.
18. The distortion caused by projection is the minimum at the line of intersection between projection surface and employed ellipsoid.
19. Cell resolution of 2 meters means map shall be printed on a 2m by 2m paper.
20. The 'Building Pyramids' technique in raster data is used for a. rasterization of vector data.



**Second Question: Fill in the space:**

(30 Points)

- a. A geographic phenomenon as something of interest that
  - .....
  - .....
  - .....
- b. Geographic Fields are classified into:
  - .....
  - .....
- c. Vertex is .....
- d. Complex images are better .....digitized while simple images are better .....digitized, but Images that are full of detail are better ..... digitized.
- e. In vector data, attributes are assigned directly to the ....., while in a raster the attributes are assigned to all .....
- f. There are three fundamental cases to be considered if we compare data sets:
  - .....
  - .....
  - .....
- g. The anchor point is fixed by convention to be ..... or sometimes ..... Location of the raster.
- h. Vectorization causes errors such as ....., and .....
- i. General rule-of-thumb is that natural geographic phenomena are more often considered as ....., and man-made phenomena are more often .....
- j. Data measurement is classified into major main categories:
  - Nominal Qualitative, Such as: .....
  - Ordinal Quantitative, Such as .....
  - ..... Such as .....
  - ..... Such as.....



- k. The common three geometrical shapes used for projection are:
  - .....
  - .....
  - .....
- l. The three important stages of working with geographic data:
  - .....
  - .....
  - .....
- m. Models representations come in many different forms:
  - .....
  - .....
  - .....
- n. The four key properties of spatial data are ....., ....., ....., and .....
- o. As a general rule-of-thumb ..... boundaries are more common in man-made phenomena, where ..... boundaries are more common with natural phenomena.
- p. Three primary files of shape files :
  - ..... : stores the feature geometry.
  - .shx : .....
  - .....: .....
- q. Direct spatial data acquisition techniques include....., and ..... where indirect ones include ....., and .....
- r. The choice of digitizing technique depends on the ....., ....., and.....
- s. Origin of ITRS is in the ..... The Z-axis towards ..... The X-axis is oriented towards ..... Y-axis .....
- t. Three types of overlay include ....., ....., and .....



Course No: Civil 4320  
Course Title: Int. to GIS  
Date: 17/09/2014  
No. of Questions: 5 (closed Book)  
Time: 2 hours.  
Using Calculator (No)

Instructor: Eng. Islam Falouji  
Student No.: \_\_\_\_\_  
Student Name: \_\_\_\_\_  
College Name: Engineering  
Dep. / Specialist: \_\_\_\_\_

**Third Question: Define the following:**

**(10 Marks)**

a. Vectorization

.....  
.....

b. Database schema

.....

c. Hybrid Approach

.....  
.....

d. On-screen digitizing

.....  
.....  
.....  
.....

e. Fuzzy boundaries

.....  
.....

f. Global Position System (GPS)

.....  
.....

g. Spatial data

.....

h. Modeling

.....  
.....


j. Thematic Maps

.....  
.....

k. Map scale

.....  
.....

Course No: Civil 4320  
Course Title: Int. to GIS  
Date: 17/ 09/ 2014  
No. of Questions: 5 (closed Book)  
Time: 2 hours.  
Using Calculator (No)

University of Palestine  
  
Summer Semester  
2014/2015  
Total Grade: 80

Instructor: Eng. Islam Falouji  
Student No.: \_\_\_\_\_  
Student Name: \_\_\_\_\_  
College Name: Engineering  
Dep. / Specialist: \_\_\_\_\_

**Fourth question: (30 Marks)**

Mention and describe map cosmetics briefly. (4 Marks)

.....  
.....  
.....  
.....  
.....  
.....  
.....

Compare between Database and GIS (4 Marks)

.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....

Explain advantage and disadvantages of Spaghetti Vector Model and Vector Topologic Model. (4 Marks)

.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

University of Palestine



Summer Semester  
2014/2015  
Total Grade: 80

Instructor: Eng. Islam Falouji

Student No.: \_\_\_\_\_

Student Name: \_\_\_\_\_

College Name: Engineering

Dep. / Specialist: \_\_\_\_\_

Course No: Civil 4320  
Course Title: Int. to GIS  
Date: 17/ 09/ 2014  
No. of Questions: 5 (closed Book)  
Time: 2 hours.  
Using Calculator (No)

Mention briefly parameters of three common coordinate systems (10 Marks)

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

What is the cartographic visualization process and factors that influence it? (5 Marks)

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

Mention six visual variables that are applied to vector data? (3 Marks)

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....


.....

.....

.....





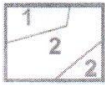
.....

Course No: Civil 4320  
 Course Title: Int. to GIS  
 Date: 17/ 09/ 2014  
 No. of Questions: 5 (closed Book)  
 Time: 2 hours.  
 Using Calculator (No)

University of Palestine  
  
 Summer Semester  
 2014/2015  
 Total Grade: 80

Instructor: Eng. Islam Falouji  
 Student No.: \_\_\_\_\_  
 Student Name: \_\_\_\_\_  
 College Name: Engineering  
 Dep. / Specialist: \_\_\_\_\_

**Fifth question:** (10 Marks)  
 Correct the errors and describe each one:

Before clean up	After clean up	Description
		
		
		
		
		

End of Questions