What is precision farming?
What is meant by the term “site specific crop management”?
What are the main objectives of precision farming?
Know how precision farming can be useful to farmers.
What does precision farming involve?
What are the needed components of a precision farming system?
What are some examples of crop production inputs that can be varied?
Define GPS and know what does it stand for.
Know the types of positioning systems (from your assigned reading).
What is the Russian equivalent of GPS and how does it differ from GPS?
What is the orbital altitude of GPS satellites?
How many orbital planes are there for GPS and how often these satellites circle the earth?
What are the three segments of GPS and how these segments function?
How does a GPS receiver determine its position (remember that you are not responsible for the
details of GPS operation as explained in one of the handouts).
Name the factors that affect GPS accuracy.
What is meant by the term selective availability and why was it instated in the first place?
What is triangulation from satellites and how many satellites are needed to make
measurements with our imperfect receivers in two dimensions? In three dimensions?
What is the key to measuring distances from satellites?
What is GDOP and how do good satellites minimize its impact on accuracy?
What is meant by DGPS?
What are the general types of DGPS that were discussed in class?
What are the possible sources for real-time DGPS?
How do the USCG and FAA (WAAS) systems compare and in what ways these help in
improving GPS measurements?
What kind of accuracy is needed in precision farming (GPS versus DGPS)?
What are the main differences among the Garmin GPS 12, the Garmin GPSmap 76, the
Garmin GPSmap 64st, and the GeoExplorer 3 systems used during the laboratory exercises?
What does GIS stand, how it can be defined, and what can it do?
What are the primary benefits of GIS?
What are the GIS-related fields and how these contribute to GIS.
What is the difference between having access to a map versus being able to access a GIS?
What are some of the capabilities of GIS?
What are some of the sources of data for GIS?
What are the GIS data formats and some of the uses of GIS?