QUIZIZZ **Worksheets**

Name [   ]

Geodesy 2 - Quiz IV
Total questions: 25
Worksheet time: 8mins
Instructor name: reda fekry

Class [   ]

Date [   ]

1. .... is a discipline within engineering that focuses on designing and analyzing systems where direct line-of-sight communication or observation is crucial.

    a) None of the above

    b) Geodetic engineering

    c) Communication surveying

    d) LOS engineering

2. Triangulation stations should be chosen on high ground so that all relevant stations are ....

    a) inaccessible

    b) accessible

    c) None of the above

    d) intervisible

3. If the distance between stations is large, the intervisibility is ascertained by knowing the .... between the stations.

    a) azimuth

    b) None of the above

    c) horizontal distance

    d)
       vertical angle

4. $h = D^2/2R(1 - 2m)$, in this equation, m above ocean equals ....

    a) 0.08

    b) 1.07

    c) 1.08

    d) 0.07

5. In .... the two points with known coordinates are occupied and sightings are taken to the unknown point.

    a) satellite station

    b) intersection

    c) three-point problem

    d) resection

6. In this system the coordinates U, V, W are expressed as functions of the observed azimuth A, zenith distances Z & spatial distance S

    a)   b) None of the above
        geodetic system

    c) Horizon system   d) cartesian system

7. An irregular surface reflecting the Earth's gravity variations

    a) Elliposoid   b) None of the above

    c) spheroid   d) Geoid

8. What is a major factor influencing the difference between a datum and a geoid?

    a) The presence of the atmosphere   b) The distribution of landmasses

    c) The Earth's rotation speed   d) None of the above

9. A datum is built on top of the .... and can incorporate local variations in ....

    a) coordinate system - elevation   b) sphereoid - elevation

    c) None of the above   d) geoid - undulation

10. What is the relationship between a datum and coordinate systems?

    a) They are the same   b) They are unrelated.

    c) A datum defines the origin, orientation, and   d) A datum is a type of coordinate system.
        scale of a coordinate system.

11. Three-dimensional (3D) conformal transformations are commonly used in surveying because of ....

    a) None of the above   b) preserving areas

    c) Weather prediction   d) Shape preservation

12. .... are 3D transformations used to convert coordinates related to one geodetic datum to another.

    a) Triangulation   b) Datum transformation

    c) Intersection   d) Resection

13.   .... is the galaxy that includes the Solar System

    a) Earth   b) Milky way

    c) Jupiter   d) None of the above

14.   Orthometric heights differ from each other at the same level surface because:

    a) They consider the Earth's rotation.   b) They are measured along a straight line.

    c) The level surfaces are not perfectly flat.   d) They are measured along the curved plumb line.

15.   The normal height of a point P is the geometric distance between P and:

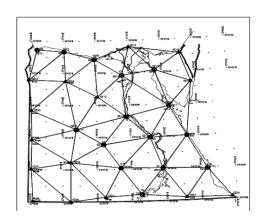   a) The reference ellipsoid at the same longitude   b) A point directly below P on the reference ellipsoid

    c) Geoid   d) The point with the same potential value on the geoid

16.   Geopotential numbers are used to calculate all of the following EXCEPT:

    a) Orthometric heights   b) Dynamic heights

    c) Normal heights   d) Undulation

17.

This figure shows the .... Egyptian geodetic network.

    a) HARN   b) None of the above

    c) Traditional   d) Triangulation

18.   An ellipsoid that fits the geoid very well in a certain country does not necessarily fit in other country.

    a) False   b) True

19.   What is the preliminary assumption at the initial point of a traditional geodetic network?

a) Geoid and ellipsoid are tangent to each other   b) deflection of the vertical equals zero

c) All of the above   d) Theta = 0

20.   The position of the datum initial point "i" (starting point of the network) to be in the geometrical center of the region of interest, and having a rigid terrain surrounded by areas of modest variations in gravity.

a) false   b) True

21.   What is the primary purpose of a geodetic network?

a) To predict weather patterns   b) To measure distances accurately

c) None of the above   d) To establish a reference framework for spatial measurements

22.   Which of the following is NOT a component of geodetic engineering?

a) Weather forecasting   b) Geoid modeling

c) Coordinate systems   d) GPS technology

23.   What is the significance of orthometric heights in geodesy?

a) They represent the height above the geoid   b) They determine the rotation speed of the Earth

c) None of the above   d) They are used for weather prediction

24.   Which type of transformation is commonly used in surveying due to its shape preservation properties?

a) None of the above   b) Conformal transformations

c) Intersection transformations   d) Resection transformations

25.   The quantities Φ , Λ , and H define the position of the observer with respect to ………………

a) None of the above   b) the spheroid & the mean rotational axis of the earth

c) the geoid & the ellipsoid normal   d) the geoid & the mean rotational axis of the earth

Answer Keys

1. d) LOS engineering

2. d) intervisible

3. c) horizontal distance

4. a) 0.08

5. b) intersection

6. c) Horizon system

7. d) Geoid

8. b) The distribution of landmasses

9. b) sphereoid - elevation

10. c) A datum defines the origin, orientation, and scale of a coordinate system.

11. d) Shape preservation

12. b) Datum transformation

13. b) Milky way

14. d) They are measured along the curved plumb line.

15. b) A point directly below P on the reference ellipsoid

16. d) Undulation

17. a) HARN

18. b) True

19. c) All of the above

20. b) True

21. d) To establish a reference framework for spatial measurements

22. a) Weather forecasting

23. a) They represent the height above the geoid

24. b) Conformal transformations

25. d) the geoid & the mean rotational axis of the earth