Andhra Pradesh State Council of Higher Education

Notations :

1.Options shown in green color and with ✔ icon are correct.

2.Options shown in red color and with ✖ icon are incorrect.

Question Paper Name :	Geo Engineering and Geo Informatics 08th Oct 2021 Shift1
Duration :	120
Total Marks :	120
Display Marks:	No
Share Answer Key With Delivery Engine :	Yes
Calculator :	None
Magnifying Glass Required? :	No
Ruler Required? :	No
Eraser Required? :	No
Scratch Pad Required? :	No
Rough Sketch/Notepad Required? :	No
Protractor Required? :	No
Show Watermark on Console? :	Yes
Highlighter :	No
Auto Save on Console? (SA type of questions will be always auto saved) :	Yes
Is this Group for Examiner? :	No

Geo Engineering and Geo Informatics

Section Id :	8737188
Section Number :	1
Mandatory or Optional :	Mandatory
Number of Questions :	120
Section Marks :	120
Enable Mark as Answered Mark for Review and Clear Response :	Yes

Question Number : 1 Question Id : 873718841 Display Question Number : Yes Is Question Mandatory : No

Which of the following is **NOT** matched correctly?

(Branch of Geology)	(Deals with)

Options :

1. ✖ Petrology — Types of rocks

2. ✖ Physical — Natural forces bring changes

3. ✖ Geomorphology — Landforms due to natural agencies

4. ✔ Structural geology — Groundwater contamination

Question Number : 2 Question Id : 873718842 Display Question Number : Yes Is Question Mandatory : No

The troposphere is boundary between

Options :

1. ✔ Trophosphere and homosphere

2. ✖ Mesosphere and heterosphere

3. ✖ Mesosphere and thermosphere

4. ✖ Troposphere and mesosphere

Question Number : 3 Question Id : 873718843 Display Question Number : Yes Is Question Mandatory : No

In the deep earth the physical parameter that is known most accurately is

Options :

1. ✖ Elastic moduli

2. ✔ Seismic wave velocity

3. ✖ Gravity

4. ✖ Density

Question Number : 4 Question Id : 873718844 Display Question Number : Yes Is Question Mandatory : No

Mohorovisic is discontinuity that exists inside the earth between

Options :

1. ✖ Mantle and core

2. ✖ Core and crust

3. ✔ Crust and mantle

4. ✖ Crust and asthenosphere

Question Number : 5 Question Id : 873718845 Display Question Number : Yes Is Question Mandatory : No

What is the approximate distance from the surface to the center of the Earth?

Options :

1. ✖ 1,000 miles

2. ✖ 10,000 miles

3. ✔ 4,000 miles

4. ✖ 40,000 miles

Question Number : 6 Question Id : 873718846 Display Question Number : Yes Is Question Mandatory : No

Which of the following statements is false?

Options :

1. ✖ The P-wave shadow zone is larger than the S-wave shadow zone.

2. ✖ Liquids do not transmit S waves

3. ✖ Seismic waves follow curved paths through the interior of the Earth

4. ✔ P waves travel more slowly in the outer core than in the lower mantle

Question Number : 7 Question Id : 873718847 Display Question Number : Yes Is Question Mandatory : No

The Indian ocean plate is split into major segments by

Options :

1. ✖ 90°E ridge

2. ✖ Owen fracture zone

3. ✔ Lakshadweep Chagos fault

4. ✖ Quetta Chaman fault

Question Number : 8 Question Id : 873718848 Display Question Number : Yes Is Question Mandatory : No

Continental crust is lighter and it is mainly composed of which of the following elements

Options :

1. ✔ Silicon, aluminum

2. ✖ Iron, aluminum

3. ✖ Sodium, calcium

4. ✖ Silicon, magnesium

Question Number : 9 Question Id : 873718849 Display Question Number : Yes Is Question Mandatory : No

Age of earth is around

Options :

1. ✖ 3.2 billion years

2. ✖ 3.2 million years

3. ✔ 4.6 billion years

4. ✖ 4.6 million years

Question Number : 10 Question Id : 873718850 Display Question Number : Yes Is Question Mandatory : No

Which of the following is correct sequence of increasing depth

Options :

1. ✔ Continental shelf, continental slope, Ocean depths and deep sea plains

2. ✖ Continental slope, Continental shelf, Ocean depths and deep sea plains

3. ✖ Continental shelf, Ocean depths, continental slope and deep sea plains

4. ✖ Continental shelf, deep sea plains, continental slope and Ocean depths

Question Number : 11 Question Id : 873718851 Display Question Number : Yes Is Question Mandatory : No

Which of the following is not related to the generation of ocean currents?

Options :

1. ✖ Difference in density

2. ✖ Difference in salinity

3. ✔ Difference in rainfall

4. ✖ Difference in temperature

Question Number : 12 Question Id : 873718852 Display Question Number : Yes Is Question Mandatory : No

The nebular hypothesis for origin of Earth is based on

Options :

1. ✖ Water vapor and dust

2. ✖ Sun and other stars

3. ✖ Stars and planets

4. ✔ Cloud and dust

Question Number : 13 Question Id : 873718853 Display Question Number : Yes Is Question Mandatory : No

The altitude line between troposphere and hemisphere is

Options :

1. ✔ 20 km

2. ✖ 30 km

3. ✖ 40 km

4. ✖ 50 km

Question Number : 14 Question Id : 873718854 Display Question Number : Yes Is Question Mandatory : No

Which of the following is not the part of continental margin

Options :

1. ✖ Continental rise

2. ✖ Continental slope

3. ✖ Continental shelf

4. ✔ Continental basin

Question Number : 15 Question Id : 873718855 Display Question Number : Yes Is Question Mandatory : No

The highest point (8850 m) and the lowest point (11035 m) on the Earth are the result of two plates _____ against each other.

Options :

1. ✖ Diverging

2. ✔ Converging

3. ✖ Converging and diverging

4. ✖ Neither Converging nor diverging

Question Number : 16 Question Id : 873718856 Display Question Number : Yes Is Question Mandatory : No

Which of the following rock is metamorphosed to marble?

Options :

1. ✔ Limestone

2. ✖ Granite

3. ✖ Slate

4. ✖ Sandstone

Question Number : 17 Question Id : 873718857 Display Question Number : Yes Is Question Mandatory : No

Match the following and choose the correct answer

Form	Mineral
A. Tuberose	1. Flossferri
B. Stellate	2. Wavellite
C. Scaly	3. Tridymite
D. Lamellar	4. Wollastonite

Options :

1. ✔ A-1 B-2 C-3 D-4

2. ✖ A-1 B-3 C-2 D-4

3. ✖ A-4 B-2 C-3 D-1

4. ✖ A-4 B-3 C-2 D-1

Question Number : 18 Question Id : 873718858 Display Question Number : Yes Is Question Mandatory : No

A mineral with adamantine luster shows the brilliant appearance because of

Options :

1. ✖ High dispersion

2. ✖ Low dispersion

3. ✔ High interference

4. ✖ Low interference

Question Number : 19 Question Id : 873718859 Display Question Number : Yes Is Question Mandatory : No

When the aluminium of muscovite is replaced by Cr^{+3} it gives rise to a green coloured variety called?

Options :

1. ✖ Phengite

2. ✔ Fuchsite

3. ✖ Roscoelite

4. ✖ Rubellite

Question Number : 20 Question Id : 873718860 Display Question Number : Yes Is Question Mandatory : No

A mineral crystallizing in Orthorhombic system with sp.gr.3.3 and hardness 8 is likely to be

Options :

1. ✖ Sulphur

2. ✔ Topaz

3. ✖ Olivine

4. ✖ Barytes

Question Number : 21 Question Id : 873718861 Display Question Number : Yes Is Question Mandatory : No

Which of the following is a high temperature polymorph of quartz?

Options :

1. ✖ Cristobalite

2. ✖ Tridymite

3. ✖ Opal

4. ✔ Coesite

Question Number : 22 Question Id : 873718862 Display Question Number : Yes Is Question Mandatory : No

Deuteric alteration refers to

Options :

1. ✖ Alteration at high temperature and pressure

2. ✖ Alteration at low temperature and pressure

3. ✔ Alteration of a mineral deposit from its own residual solutions

4. ✖ Alteration any means of solvents from hydrothermal solutions

Question Number : 23 Question Id : 873718863 Display Question Number : Yes Is Question Mandatory : No

Which of the following mineral has the lowest hardness?

Options :

1. ✔ Gypsum

2. ✖ Fluorite

3. ✖ Quartz

4. ✖ Topaz

Question Number : 24 Question Id : 873718864 Display Question Number : Yes Is Question Mandatory : No

The single most important group of minerals in abundance is

Options :

1. ✔ Silicates

2. ✖ Carbonates

3. ✖ Oxides

4. ✖ Sulfites

Question Number : 25 Question Id : 873718865 Display Question Number : Yes Is Question Mandatory : No

Igneous rocks may be formed from

1. Magma
2. Lava
3. Oil and compounds

Of the above

Options :

1. ✖ Only 1 is correct

2. ✔ Only 1 and 2 are correct

3. ✖ Only 1 and 3 are correct

4. ✖ Only 2 and 3 are correct

Question Number : 26 Question Id : 873718866 Display Question Number : Yes Is Question Mandatory : No

Texture observed in granite is generally

Options :

1. ✔ Equigranular

2. ✖ Inequigranular

3. ✖ Poikilitic

4. ✖ Subophitic

Question Number : 27 Question Id : 873718867 Display Question Number : Yes Is Question Mandatory : No

Which of the following rock is deposited by chemical precipitation only?

Options :

1. ✖ Limestone

2. ✔ Halite

3. ✖ Coal

4. ✖ Dolostone

Question Number : 28 Question Id : 873718868 Display Question Number : Yes Is Question Mandatory : No

Which of the following rock represents the highest metamorphic grade?

Options :

1. ✖ Slate

2. ✖ Schist

3. ✔ Gneiss

4. ✖ Phyllite

Question Number : 29 Question Id : 873718869 Display Question Number : Yes Is Question Mandatory : No

Which of the following is the diagnostic physical property of calcite?

Options :

1. ✔ Hardness

2. ✖ Lustre

3. ✖ Specific gravity

4. ✖ Colour

Question Number : 30 Question Id : 873718870 Display Question Number : Yes Is Question Mandatory : No

Uniaxial compressive strength of rock is determined to understand about

Options :

1. ✖ Mineral composition

2. ✔ Compactness of rock

3. ✖ Density

4. ✖ Porosity of rock

Question Number : 31 Question Id : 873718871 Display Question Number : Yes Is Question Mandatory : No

The most commonly used set of theodolite operations are

Options :

1. ✔ Right face and right swing

2. ✖ Right face and left swing

3. ✖ Left face and right swing

4. ✖ Left face and left swing

Question Number : 32 Question Id : 873718872 Display Question Number : Yes Is Question Mandatory : No

A vertical photograph in an aerial photogrammetry is made with

Options :

1. ✖ Camera axis directed in horizontal direction

2. ✖ Camera axis directed in vertical direction

3. ✔ Camera axis coinciding with the direction of gravity

4. ✖ Camera axis titled by a small amount

Question Number : 33 Question Id : 873718873 Display Question Number : Yes Is Question Mandatory : No

The side overlap of a stereopair of photographs is usually

Options :

1. ✖ 60%

2. ✖ 50%

3. ✖ 40%

4. ✔ 30%

Question Number : 34 Question Id : 873718874 Display Question Number : Yes Is Question Mandatory : No

The perpendicular distance from the centre of the camera lens to either the picture plane or the camera plate is known as

Options :

1. ✖ Camera axis

2. ✖ Picture plane

3. ✔ Focal length

4. ✖ Principal point

Question Number : 35 Question Id : 873718875 Display Question Number : Yes Is Question Mandatory : No

On a map a smallest length is drawn at

Options :

1. ✖ 0.6 mm

2. ✖ 1 cm

3. ✖ 1.2 cm

4. ✔ 0.2 mm

Question Number : 36 Question Id : 873718876 Display Question Number : Yes Is Question Mandatory : No

A scale representing either three units or only one unit and its fractions upto second place of decimal point is

Options :

1. ✖ Comparative scale

2. ✖ Shrunk scale

3. ✖ Vernier scale

4. ✔ Diagonal scale

Question Number : 37 Question Id : 873718877 Display Question Number : Yes Is Question Mandatory : No

Optical square is based on the principal of optical

Options :

1. ✖ Refraction

2. ✔ Double Reflection

3. ✖ Reflection

4. ✖ Double Refraction

Question Number : 38 Question Id : 873718878 Display Question Number : Yes Is Question Mandatory : No

A 10cm theodolite means that

Options :

1. ✔ Diameter of the graduated circle of its lower plate is 10cm

2. ✖ Diameter of the graduated circle of its vertical circle is 10cm

3. ✖ Length of its telescope is 10cm

4. ✖ Height of the telescope is 10cm

Question Number : 39 Question Id : 873718879 Display Question Number : Yes Is Question Mandatory : No

If the distance between two points A and B is 1km, then combined correction for curvature and refraction will be

Options :

1. ✖ 0.673m

2. ✖ 0.0673m

3. ✔ 1.0673m

4. ✖ 1.673m

Question Number : 40 Question Id : 873718880 Display Question Number : Yes Is Question Mandatory : No

The point of intersection of x and y axes of an aerial photograph coincides with the

Options :

1. ✔ Principal point

2. ✖ Nadir point

3. ✖ Exposure station

4. ✖ isocentre

Question Number : 41 Question Id : 873718881 Display Question Number : Yes Is Question Mandatory : No

In a tilted photograph 'swing' is:

Options :

1. ✔ Angle measured in the plane of the photograph from the positive Y-axis clockwise to the nadir point

2. ✖ Angle measured in the plane of the photograph from the positive Y-axis anti-clockwise to the principle point

3. ✖ Angle measured in the plane of the photograph from the positive Y-axis clockwise to the principle point

4. ✖ Angle measured in the plane of the photograph from the positive Y-axis anti-clockwise to the nadir point

Question Number : 42 Question Id : 873718882 Display Question Number : Yes Is Question Mandatory : No

In aerial survey, exposures at a constant time interval are recorded with the help of

Options :

1. ✖ Stereo autographs

2. ✖ Lucida

3. ✖ Stereoscope

4. ✔ Intervalometer

Question Number : 43 Question Id : 873718883 Display Question Number : Yes Is Question Mandatory : No

If the horizon point of an aerial photograph lies on the photo itself, then

Options :

1. ✖ The photograph is tilted

2. ✖ The photograph is vertical

3. ✖ The photograph is low oblique

4. ✔ The photograph is high oblique

Question Number : 44 Question Id : 873718884 Display Question Number : Yes Is Question Mandatory : No

Map is

Options :

1. ✔ Orthogonal projection

2. ✖ Oblique projection

3. ✖ Both Orthogonal and Oblique projection

4. ✖ A perspective projection

Question Number : 45 Question Id : 873718885 Display Question Number : Yes Is Question Mandatory : No

In photo interpretation, tone of an object refers to

Options :

1. ✖ The spatial arrangement of visibly discernable objects

2. ✖ The frequency of the tonal changes

3. ✔ Relative brightness of the object

4. ✖ Both option 1 and option 2

Question Number : 46 Question Id : 873718886 Display Question Number : Yes Is Question Mandatory : No

The relief displacement is radial from

1. Isocentre on a vertical photograph
2. Principal point on a vertical photograph
3. Nadir point on a tilted photograph
4. Isocentre on a tilted photograph

Of these statements

Options :

1. ✖ 1 and 3 are correct

2. ✖

1 and 4 are correct

3. ✔ 2 and 3 are correct

4. ✖ 2 and 4 are correct

Question Number : 47 Question Id : 873718887 Display Question Number : Yes Is Question Mandatory : No

A vertical photograph was taken from an aircraft flying at an altitude of 2000m above mean sea level. The focal length of the camera is 175 mm. The scale of the photograph for a hill of an elevation of 250m is

Options :

1. ✖ 1/15000

2. ✖ 1/20000

3. ✖ 1/25000

4. ✔ 1/10000

Question Number : 48 Question Id : 873718888 Display Question Number : Yes Is Question Mandatory : No

In aerial photograph, if the photograph has a tilt of 4° & the focal length is 200mm, then the distance between the principal point & plumb point will be

Options :

1. ✖ 200/sin 4°

2. ✖ 200/cos 4°

3. ✔ 200 tan 4°

4. ✖ 200 cos 4°

Question Number : 49 Question Id : 873718889 Display Question Number : Yes Is Question Mandatory : No

If f is the focal length, t is the angle of tilt, then the distance of isocentre on the principal line from the principal point is

Options :

1. ✔ f tan t/2

2. ✖ f cot t

3. ✖ f cot t/2

4. ✖ f tan t

Question Number : 50 Question Id : 873718890 Display Question Number : Yes Is Question Mandatory : No

The process of photography from ground is known as

Options :

1. ✖ Aerial surveying

2. ✖ Telescopic surveying

3. ✔ Terrestrial surveying

4. ✖ Astronomical surveying

Question Number : 51 Question Id : 873718891 Display Question Number : Yes Is Question Mandatory : No

Pick up that is not a type of map projection

Options :

1. ✖ Azimuthal

2. ✖ Conic

3. ✖ Cylindrical

4. ✔ Geographic

Question Number : 52 Question Id : 873718892 Display Question Number : Yes Is Question Mandatory : No

Spectral bandwidth with which the data is collected

Options :

1. ✖ Temporal resolution

2. ✖ Spatial resolution

3. ✖ Radiometric resolution

4. ✔ Spectral resolution

Question Number : 53 Question Id : 873718893 Display Question Number : Yes Is Question

Mandatory : No

In remote sensing system, the system which works as both the receiver and the transmitter is known as

Options :

1. ✔ Active system

2. ✖ Passive system

3. ✖ Framing system

4. ✖ Scanning system

Question Number : 54 Question Id : 873718894 Display Question Number : Yes Is Question Mandatory : No

If an image have a high resolution then,

Options :

1. ✔ Small features are visible

2. ✖ Small features are not visible

3. ✖ Only colored features can be identified

4. ✖ Cannot be said

Question Number : 55 Question Id : 873718895 Display Question Number : Yes Is Question Mandatory : No

Which of the following regions of wavelengths are/is not used in remote sensing?

Options :

1. ✖ Infra-red

2. ✖ Visible

3. ✔ Ultra-violet

4. ✖ Thermal IR

Question Number : 56 Question Id : 873718896 Display Question Number : Yes Is Question Mandatory : No

Which of the following cannot be achieved by remote sensing?

Options :

1. ✔ Prevention of earthquakes

2. ✖ Detection of forest fires

3. ✖ Detection of lineaments

4. ✖ Land use pattern

Question Number : 57 Question Id : 873718897 Display Question Number : Yes Is Question Mandatory : No

Which among the following is spatial data?

Options :

1. ✖ Quantity

2. ✖ Texture

3. ✖ Color

4. ✔ Streets

Question Number : 58 Question Id : 873718898 Display Question Number : Yes Is Question Mandatory : No

In a remotely sensed data of a planet, the presence of hydrous species can be inferred using which region of the electromagnetic spectrum?

Options :

1. ✔ Infrared

2. ✖ Visible

3. ✖ Gamma

4. ✖ Radio wave

Question Number : 59 Question Id : 873718899 Display Question Number : Yes Is Question Mandatory : No

The major drawback of TRANSIT is

Options :

1. ✖ High orbit satellites

2. ✖ Low orbit satellites

3. ✔ The large time step in coverage

4. ✖ It was not helpful for navigation and surveying

Question Number : 60 Question Id : 873718900 Display Question Number : Yes Is Question Mandatory : No

Consider the following with regards to remote sensing system:

1. The sensor used for geologic investigations is active one
2. The sensor used for geologic investigations is passive one
3. The source is sun

Of the above, the correct statement (s) is (are)

Options :

1. ✖ 1 only

2. ✖ 1 and 2 only

3. ✖ 2 and 3 only

4. ✔ 1, 2 and 3

Question Number : 61 Question Id : 873718901 Display Question Number : Yes Is Question Mandatory : No

The system that uses the sun as a source of electromagnetic energy and records the naturally radiated and reflected energy from the object is called

Options :

1. ✖ Geographical Information System

2. ✔ Passive Remote Sensing

3. ✖ Global Positioning System

4. ✖ Active Remote Sensing

Question Number : 62 Question Id : 873718902 Display Question Number : Yes Is Question Mandatory : No

In case of reflection and refraction of electromagnetic radiation

Options :

1. ✖ Angle of incident is angle of refraction

2. ✔ Angle of incident is angle of reflection

3. ✖ Angle of refraction is both sum of angle of incident and refraction

4. ✖ Angle of refraction is both minus of angle of incident and refraction

Question Number : 63 Question Id : 873718903 Display Question Number : Yes Is Question Mandatory : No

Which of the following waves are used in Remote sensing technique

Options :

1. ✖ Electric waves

2. ✖ Sound waves

3. ✖ Wind waves

4. ✔ Electromagnetic waves

Question Number : 64 Question Id : 873718904 Display Question Number : Yes Is Question

Mandatory : No

In Remote sensing, the basic property which allows identification of an object is known as

Options :

1. ✖ Radiometric error

2. ✔ Signature

3. ✖ Radiation

4. ✖ Resolution

Question Number : 65 Question Id : 873718905 Display Question Number : Yes Is Question Mandatory : No

Spectral bandwidth with which the data is collected

Options :

1. ✖ Temporal resolution

2. ✖ Spatial resolution

3. ✖ Radiometric resolution

4. ✔ Spectral resolution

Question Number : 66 Question Id : 873718906 Display Question Number : Yes Is Question Mandatory : No

The ratio of the total solar radiant energy returned by a planetary body to the total radiant energy incident on the body, is called

Options :

1. ✔ Albedo

2. ✖ Reflectance

3. ✖ Reflectance factor

4. ✖ Resolution

Question Number : 67 Question Id : 873718907 Display Question Number : Yes Is Question Mandatory : No

Which of the following is not an advantage of remote sensing

Options :

1. ✔ Data acquisition is difficult at different scales and resolutions

2. ✖ Recitative coverage allows monitoring of themes like water, agricultures

3. ✖ satellite images are permanent records providing useful information in various wavelengths

4. ✖ Large area coverage enables regional surveys on variety of themes and identification of large features.

Question Number : 68 Question Id : 873718908 Display Question Number : Yes Is Question Mandatory : No

Arrange the electromagnetic waves according to the increasing order of their wave lengths

Options :

1. ✖ Infrared, Gamma rays, X- Rays and Ultraviolet

2. ✖ X- Rays, Ultraviolet, Gamma rays and Infrared

3. ✔ Gamma rays, X- Rays, Ultraviolet and Infrared

4. ✖ Gamma rays, Infrared, Ultraviolet and X- Rays

Question Number : 69 Question Id : 873718909 Display Question Number : Yes Is Question Mandatory : No

The capability to view the same targets under similar condition at regular interval is called

Options :

1. ✔ Temporal resolution

2. ✖ Spatial resolution

3. ✖ Radiometric resolution

4. ✖ Spectral resolution

Question Number : 70 Question Id : 873718910 Display Question Number : Yes Is Question Mandatory : No

Which of the following is not form of Remote sensing data

Options :

1. ✖ Images

2. ✖ Analog data

3. ✔ Field data

4. ✖ Digital data

Question Number : 71 Question Id : 873718911 Display Question Number : Yes Is Question Mandatory : No

The expression $D=H'\beta$ is given in

Where D= diameter of the circular ground area

H'= flying height above the terrain

B= IFOV of the system (in radians)

Options :

1. ✔ Across-Track scanning

2. ✖ Along-Track Scanning

3. ✖ Thermal radiation

4. ✖ Hyperspectral sensing

Question Number : 72 Question Id : 873718912 Display Question Number : Yes Is Question Mandatory : No

A set of data that describes and gives information about other data

Options :

1. ✖ Field data

2. ✖ Remote sensing data

3. ✔ Meta data

4. ✖ Text data

Question Number : 73 Question Id : 873718913 Display Question Number : Yes Is Question Mandatory : No

Which is the first pico-satellite of India?

Options :

1. ✖ INSAT

2. ✔ StudSat

3. ✖ ANUSAT

4. ✖ GSAT-4

Question Number : 74 Question Id : 873718914 Display Question Number : Yes Is Question Mandatory : No

Which is the India and France collaborate satellite?

Options :

1. ✖ SRMSAT

2. ✖ Jugnu

3. ✖ Youthsat

4. ✔ Megha-Tropiques

Question Number : 75 Question Id : 873718915 Display Question Number : Yes Is Question Mandatory : No

Geomatics encompasses the disciplines of

Options :

1. ✖ Surveying, Hydrography, Remote Sensing and GIS

2. ✖ Surveying, Hydrography, Mapping, Geology, Remote Sensing and GIS

3. ✖ Remote Sensing and GIS

4. ✔ Surveying, Hydrography, Mapping, Remote Sensing and GIS

Question Number : 76 Question Id : 873718916 Display Question Number : Yes Is Question Mandatory : No

The highest resolution commercial satellite data is available in

Options :

1. ✔ Quick bird

2. ✖ Cartosat-1

3. ✖ Resourcesat-1

4. ✖ Oceansat-1

Question Number : 77 Question Id : 873718917 Display Question Number : Yes Is Question Mandatory : No

The first satellite of Canadian Space Agency is

Options :

1. ✖ Cartosat-1

2. ✖ Resourcesat-1

3. ✔ Radarsat-1

4. ✖ Oceansat-1

Question Number : 78 Question Id : 873718918 Display Question Number : Yes Is Question Mandatory : No

Currently in orbit how many GPS satellites are around the earth?

Options :

1. ✖ 15

2. ✖ 19

3. ✔ 24

4. ✖ 27

Question Number : 79 Question Id : 873718919 Display Question Number : Yes Is Question Mandatory : No

The primary imaging systems like high resolution visible and infrared sensors and the vegetation instrument is seen in

Options :

1. ✖ SPOT-1

2. ✖ SPOT-2

3. ✖ SPOT-3

4. ✔ SPOT-4

Question Number : 80 Question Id : 873718920 Display Question Number : Yes Is Question Mandatory : No

The sensor that collects data in two spectral bands and has a ground swath between 728km to 812 km is

Options :

1. ✖ Return Beam Vidicon

2. ✖ Multi Spectral Scanner

3. ✔ Wide Field Sensor

4. ✖ Thematic Mapper

Question Number : 81 Question Id : 873718921 Display Question Number : Yes Is Question Mandatory : No

Information in GIS is entered and stored as

Options :

1. ✖ Panels

2. ✔ Layers

3. ✖ Single panel

4. ✖ Dual panel

Question Number : 82 Question Id : 873718922 Display Question Number : Yes Is Question Mandatory : No

Most common map projections are based on

Options :

1. ✖ Two Shapes

2. ✔ Three Shapes

3. ✖ Four Shapes

4. ✖ Five Shapes

Question Number : 83 Question Id : 873718923 Display Question Number : Yes Is Question Mandatory : No

The normal orbital period of a GPS satellite is

Options :

1. ✔ 11 h 58 min

2. ✖ 6 h 35 min

3. ✖ 12 h 00 min

4. ✖ 24 h

Question Number : 84 Question Id : 873718924 Display Question Number : Yes Is Question Mandatory : No

Which among the following GPS technique require 4-satellite tracking at all times?

Options :

1. ✖ Static GPS

2. ✖ Pseudostatic GPS

3. ✖ Differential GPS

4. ✔ Kinematic GPS

Question Number : 85 Question Id : 873718925 Display Question Number : Yes Is Question Mandatory : No

Consider the following with regards to GPS system. It consists of

1. Operational control system
2. Equipment segment
3. Satellite constellation

Of the above, the correct statement (s) is (are)

Options :

1. ✖ 1 and 2

2. ✖ 2 and 3

3. ✖ 3 only

4. ✔ 1, 2 and 3

Question Number : 86 Question Id : 873718926 Display Question Number : Yes Is Question

Mandatory : No

The minimum number of satellites needed for a GPS to determine its position precisely is

Options :

1. ✖ 11

2. ✖ 24

3. ✔ 4

4. ✖ 6

Question Number : 87 Question Id : 873718927 Display Question Number : Yes Is Question Mandatory : No

In the following, which scattering method has the particles which are just about same size as the wavelength of radiation?

Options :

1. ✖ Non elective scattering

2. ✔ Mie scattering

3. ✖ Rayleigh scattering

4. ✖ Tyndall scattering

Question Number : 88 Question Id : 873718928 Display Question Number : Yes Is Question Mandatory : No

In graph theory, a graph with loops and parallel edges is called as _____.

Options :

1. ✖ Simple graph

2. ✔ Multigraph

3. ✖ Regular graph

4. ✖ Complete graph

Question Number : 89 Question Id : 873718929 Display Question Number : Yes Is Question Mandatory : No

A fixed point on Earth's surface from which direction and location can be described is known as

Options :

1. ✖ Datum

2. ✔ Reference point

3. ✖ Fixed point

4. ✖ Perfect point

Question Number : 90 Question Id : 873718930 Display Question Number : Yes Is Question Mandatory : No

Map projection that shows an area between latitude and longitude equal in size to area on globe is known as

Options :

1. ✔ Equal area projection

2. ✖ Conical projection

3. ✖ Azimuthal projection

4. ✖ Cylindrical projection

Question Number : 91 Question Id : 873718931 Display Question Number : Yes Is Question Mandatory : No

Identify a zone of interest around a point, line or polygon is known as

Options :

1. ✖ Trim

2. ✖ Mosaic

3. ✔ Buffering

4. ✖ Georeferencing

Question Number : 92 Question Id : 873718932 Display Question Number : Yes Is Question Mandatory : No

The most well-known geographic coordinate system is latitude and longitude, commonly referred to as

Options :

1. ✖ Horizontals and verticals

2. ✔ Parallels and meridians

3. ✖ Primes and equators

4. ✖ x-lines and y-lines

Question Number : 93 Question Id : 873718933 Display Question Number : Yes Is Question Mandatory : No

Which of the following is not a type of map projection?

Options :

1. ✖ Conic

2. ✔ Geographic

3. ✖ Azimuthal

4. ✖ Cylindrical

Question Number : 94 Question Id : 873718934 Display Question Number : Yes Is Question Mandatory : No

The study of geometrical properties and spatial relations unaffected by the continuous change of shape or size of figures is known as

Options :

1. ✖ Routing

2. ✖ Networking

3. ✔ Topology

4. ✖ Photogrammetry

Question Number : 95 Question Id : 873718935 Display Question Number : Yes Is Question Mandatory : No

GIS deals with which kind of data

Options :

1. ✖ Numeric data

2. ✔ Spatial data

3. ✖ Complex data

4. ✖ Binary data

Question Number : 96 Question Id : 873718936 Display Question Number : Yes Is Question Mandatory : No

TIN stands for

Options :

1. ✖ Temporal Interest Network

2. ✖ Temperature interface Node

3. ✔ Triangulated Irregular Network

4. ✖ Traffic Internet Network

Question Number : 97 Question Id : 873718937 Display Question Number : Yes Is Question Mandatory : No

The boundary model is sometimes also called

Options :

1. ✖ Topological discrete model

2. ✖ Temporal discrete model

3. ✔ Topological data model

4. ✖ Temporal data model

Question Number : 98 Question Id : 873718938 Display Question Number : Yes Is Question Mandatory : No

Which of the following is incorrect

Options :

1. ✔ In comparison with the vector data model, raster data models tend to be better representations of reality

2. ✖ Vector data provides an increased ability to alter the scale of observation and analysis

3. ✖ Vector data tend to be more compact in data structure, so file sizes are typically much smaller than their raster counterparts

4. ✖ Topology is inherent in the vector model

Question Number : 99 Question Id : 873718939 Display Question Number : Yes Is Question Mandatory : No

Which of the following is incorrect

Options :

1. ✖ Vector data may or may not be topologically explicit, depending on the file's data structure.

2. ✖ Topology is an informative geospatial property that describes the connectivity, area definition, and contiguity of interrelated points, lines, and polygon.

3. ✔ Raster data utilizes points, lines, and polygons to represent the spatial features in a map

4. ✖ Care should be taken to determine whether the raster or vector data model is best suited for your data and/or analytical needs.

Question Number : 100 Question Id : 873718940 Display Question Number : Yes Is Question Mandatory : No

Rubber sheeting means

Options :

1. ✔ Stretching map coordinates to fit a series of known control points.

2. ✖ Projecting map data from one coordinate system to another.

3. ✖ The process of matching two adjacent map sheets.

4. ✖ continuous surface consisting entirely of triangular facets

Question Number : 101 Question Id : 873718941 Display Question Number : Yes Is Question Mandatory : No

Which of the following might be considered as the fourth dimension in GIS

Options :

1. ✖ Space

2. ✔ Time

3. ✖ Scale

4. ✖ Location

Question Number : 102 Question Id : 873718942 Display Question Number : Yes Is Question Mandatory : No

Which of the following are advantages of DEMs over TINs when creating Digital Terrain Models (DTMs)

Options :

1. ✔ DEMs use a simple data model.

2. ✖ DEMs can directly accept inputs from digital height grids

3. ✖ DEMs efficiently store data over varied terrain

4. ✖ DEMs do not require resampling if irregularly spaced input data is used

Question Number : 103 Question Id : 873718943 Display Question Number : Yes Is Question Mandatory : No

Which of the following are applications of network analysis

Options :

1. ✖ Spatial search and query

2. ✖ Line in polygon overlay

3. ✖ Travelling salesperson problem

4. ✔ Flood routing

Question Number : 104 Question Id : 873718944 Display Question Number : Yes Is Question Mandatory : No

Which of the following is an example of map generalization

Options :

1. ✖ Coordinate system

2. ✖ Buffering zone

3. ✔ Polygon coordinate thinning

4. ✖ Polygon overlay

Question Number : 105 Question Id : 873718945 Display Question Number : Yes Is Question Mandatory : No

Which of the following refers to non spatial data

Options :

1. ✖ Point

2. ✔ Textual information

3. ✖ Line

4. ✖ Polygon

Question Number : 106 Question Id : 873718946 Display Question Number : Yes Is Question Mandatory : No

What is the data stream

Options :

1. ✖ The flow of data from producer to GIS

2. ✖ The process by which maps are transferred between GIS platforms

3. ✖ The flow of data from one user to another

4. ✔ The process by which raw spatial data is processed into an integrated GIS database.

Question Number : 107 Question Id : 873718947 Display Question Number : Yes Is Question Mandatory : No

Triangulation method for conversion data requires at least

Options :

1. ✖ 4 control points

2. ✖ 6 control points

3. ✔ 8 control points

4. ✖ 2 control points

Question Number : 108 Question Id : 873718948 Display Question Number : Yes Is Question Mandatory : No

Which of the following is not a Vector Data Model

Options :

1. ✖ It provides more compact data structure

2. ✖ It provides efficient encoding of topology

3. ✔ High special variability is efficiently represented

4. ✖ It is more suited to support graphics that closely represent hand drawn maps

Question Number : 109 Question Id : 873718949 Display Question Number : Yes Is Question Mandatory : No

Which of the following is disadvantage of Raster Data Model

Options :

1. ✖ It is very simple data structure

2. ✖ Continuous features are best represented using raster

3. ✖ Overlay analysis is easy to perform with raster model

4. ✔ For storing multiple attributes at a given cell, multi band data set is required

Question Number : 110 Question Id : 873718950 Display Question Number : Yes Is Question Mandatory : No

Which of the following methods may be used to input paper maps into a GIS

Options :

1. ✔ Scanning

2. ✖ Tracing

3. ✖ Automated digitizing

4. ✖ Manual digitizing

Question Number : 111 Question Id : 873718951 Display Question Number : Yes Is Question Mandatory : No

The determinant of square matrix with three rows {1,1,-1}, {1,0,-2} and (2,2,-2}is

Options :

1. ✖ 4

2. ✖ -1

3. ✔ zero

4. ✖ ½

Question Number : 112 Question Id : 873718952 Display Question Number : Yes Is Question Mandatory : No

If the rank of the square matrix of size n is k then the number of independent

solutions of the system AX = O is

Options :

1. ✖ k

2. ✔ n-k

3. ✖ n

4. ✖ n-k+1

Question Number : 113 Question Id : 873718953 Display Question Number : Yes Is Question Mandatory : No

The derivative of modulus(x) at x = 0 is

Options :

1. ✖ 1

2. ✖ -1

3. ✖ 0

4. ✔ does not exist

Question Number : 114 Question Id : 873718954 Display Question Number : Yes Is Question Mandatory : No

The limit of the function f(x) = {sin 3x}/{sin 2x} as x tends to 0 is

Options :

1. ✖ -3/2

2. ✔ 3/2

3. ✖ 0

4. ✖ 3

Question Number : 115 Question Id : 873718955 Display Question Number : Yes Is Question Mandatory : No

The quadratic function $f(x) = 3x^2 - 6x + 4$ has a unique minimum at x =

Options :

1. ✖ -3

2. ✖ 9

3. ✖ 6

4. ✔ 1

Question Number : 116 Question Id : 873718956 Display Question Number : Yes Is Question Mandatory : No

A point at which a function ceases to be analytic is called a _____ point

Options :

1. ✔ Singular

2. ✖ Non-Singular

3. ✖ Regular

4. ✖ Non-regular

Question Number : 117 Question Id : 873718957 Display Question Number : Yes Is Question Mandatory : No

The harmonic conjugate of $2x - x^3 + 3xy^2$ is

Options :

1. ✖ $x-3x^2y+y^3$

2. ✔ $2y-3x^2y+y^3$

3. ✖ $y+3x^2y+y^3$

4. ✖ $2y+3x^2y-y^3$

Question Number : 118 Question Id : 873718958 Display Question Number : Yes Is Question Mandatory : No

The conditional probability $P(A|B) =$

Options :

1. ✔ $P(A \cap B)/P(B)$

2. ✖ $P(B)/P(A \cup B)$

3. ✖ $P(A \cap B)/P(A)$

4. ✖ $1- P(B|A)$

Question Number : 119 Question Id : 873718959 Display Question Number : Yes Is Question Mandatory : No

The standard deviation of values $\{2,2,2,2,2,2\}$ is

Options :

1. ✖ 4

2. ✖ 2

3. ✖ $2^{1/2}$

4. ✔ 0

Question Number : 120 Question Id : 873718960 Display Question Number : Yes Is Question Mandatory : No

For a normal distribution N(0,1), the values covered between the limits (-3, 3) is

Options :

1. ✖ 95.65%

2. ✔ 99.73%

3. ✖ 95%

4. ✖ 65.8%