

14 — GEO-INFORMATICS

(Answer ALL questions)

56. The function of transforming the distorted image coordinate to a specific map projection is called as

1. Georeferencing
2. Cartography
3. Image enhancement
4. Stereo plotting

57. The geographic information together with image data in a unified and well defined way can be stored in which of the following file format?

1. Super structure
2. Fast
3. GeoTIFF
4. HDF

58. The frequency of tonal change on the image is called as

1. Pattern
2. Texture
3. Tone
4. Shape

59. The spatial resolution of satellite imagery is not influenced by

1. Modulation Transfer Function
2. Scene noise
3. Contrast ratio
4. Saturation radiance

60. The cone angle within which incident energy is focused on the detector is called as

1. Field of view
2. Instantaneous field of view
3. Angle of view
4. Instantaneous angle of view

61. The spatial resolution of Cartosat 2 PAN image is

1. 1 m
2. 2.6 m
3. 6 m
4. 13 m

62. What is the measure of the radiant flux per unit area?

1. Radiant power
2. Radiance
3. Irradiance
4. Radiant intensity

63. Depending on the relative value of red and reflectance, NDVI vary from

1. 0 to 100
2. 0 to 1
3. -1 to 1
4. -100 to 100

64. The radiation from the sun is a combination of

1. Electric and magnetic waves in two mutually perpendicular planes
2. Electric and magnetic waves in two mutually parallel planes
3. Labert and Planck waves in two mutually perpendicular planes
4. Labert and Planck waves in two mutually parallel planes

65. The technology uses the pulses of laser light directed towards the ground and measuring the time of pulse return is

1. Pulsor
2. Lidar
3. Lasor
4. Radar

66. Location-Allocation modelling is a

1. A method of matching supply with demand across a network by locating a limited set of resources using network analysis
2. A method of allocating resources within an area of interest using buffer analysis
3. A method of site location based on overlaying multiple siting criteria map
4. A method within network analysis used to determine delivery routes

67. A Gravity model is used in GIS to

1. Compute the relative attractiveness of centres of supply relative to demand
2. Predict the attraction of Earth Core on Surface Features
3. Determine the land prices based on travel times
4. Map the density of the Earth's crust

68. AM/FM terminology used in GIS stands for

1. Automatic Mapping and Form Management
2. Automated Mapping and Facilities Management
3. Automated Maintenance and Facilities Management
4. Automatic Maintenance and Form Management

69. Accuracy can be defined as

1. The extent to which a value approaches its true value
2. The overall quality of the data
3. The level of detail at which data is stored
4. The lack of bias in the data

70. Sliver Polygons are the

1. Small polygons that are created from digitizer spikes
2. Small polygons added in the editing process by mistake
3. Long, narrow polygons resulting from re-registering the map document between digitizing sessions
4. Long, thin polygons created when overlaying a common boundary that has been digitized twice

71. What magnitude of error might be expected if a map at 1:50,000 scale is digitized to an accuracy of $\pm 0.5\text{mm}$?

1. ± 25 metres
2. ± 12.5 metres.
3. ± 100 metres.
4. ± 50 metres.

72. Which of the following shapes will not tessellate a plane?

1. Rectangles
2. Regular hexagons
3. Equilateral triangles
4. Equal radius circles

73. Snow areas appear ————— in colour in visible region

1. Black
2. Blue
3. Gray
4. White

74. Waterlogged comes under

1. Inland natural wetlands
2. Inland manmade wetlands
3. Coastal natural wetlands
4. Coastal manmade wetlands

75. Indian coral reefs are not found in the coast of

1. Kerala
2. Maharashtra
3. Lakshwadweep Islands
4. Andaman and Nicobar Islands

76. Ocean colour can be monitored using _____ sensor.

1. LISS
2. CARTOSAT
3. AVHRR
4. SEAWiFs

77. In a stereo model comprised of two overlapping vertical aerial photographs, what is the minimum number of vertical control points needed to orient the model?

1. One
2. Two
3. Three
4. Four

78. Model in stereo plotters must be geo referenced to the ground for measuring in three consecutive steps

1. Interior, Relative and Absolute orientation
2. Exterior, Relative and Absolute orientation
3. Interior and Absolute orientation
4. Interior, Relative and Interior orientation

79. The C – factor is a traditional expression of

1. Horizontal compilation accuracy
2. Vertical compilation accuracy
3. Horizontal and vertical compilation accuracy
4. Angular accuracy

80. The focal length which produces an overall mean distribution of radial lens distortion is

1. Equivalent focal length
2. Average radial lens distortion
3. Calibrated focal length
4. Raw focal length

81. The ground area covered by a stereoscopic model of a vertical photograph format 200 mm \times 200 mm on scale 1 : 10,000 having end overlap 60% and side overlap 30% is

1. 2.40 sq.km
2. 4.00 sq.km
3. 1.20 sq.km
4. 0.72 sq.km

82. A Thematic Layer is

1. A method used in cartography to produce mathematically accurate projection
2. A map portraying a particular feature that is used in map
3. Used in GPS System to promote more accurate navigational information
4. Used as a method to analyse thematic regions

83. Lines of Longitude

1. Never meet
2. Begin at Equator
3. All referred as parallel
4. Intersect at poles

84. Map Projections attempt to correct for errors in

1. Area, Distance, Scale and Proportion
2. Area, Distance, Shape and Direction
3. Distance, Proximity, topology
4. Distance, Shape and Lines of Latitude and Longitude

85. WMS Stands for

1. Web Map Service
2. Wireless Map Service
3. Web Message Service
4. Wireless Mobile Service

86. OGC Stands for

1. Open GeoSpatial Consortium
2. Open Geo Consortium
3. Open GIS Consortium
4. Open Geology Consortium

87. The highly precise latest theodolite available in the market is

1. Vernier theodolite
2. Micrometer theodolite
3. Micro-optic theodolite
4. Digital theodolite

88. The Analectic lens fitted inside telescope of a tacheometer reduces the value of

1. Additive constant
2. Multiplying constant
3. Negative constant
4. Reflector constant

89. The ideal well conditioned triangle, to be used in triangulation survey is

1. Plane triangle
2. Spherical triangle
3. Equilateral triangle
4. Isosceles triangle

90. A curve introduced between a straight and a circular curve is

1. Compound curve
2. Reserve curve
3. Combined curve
4. Transition curve

91. The expansion for MSL in a hydrographic surveying is

1. Mid sea level
2. Mild sea level
3. Mean sea level
4. Moderate sea level

92. Inspite of repeated adjustments, the plate bubble of a total station is not at its centre of run. Hence the instrument requires to have

1. Least square adjustment
2. Permanent adjustment
3. Provisional adjustment
4. Temporary adjustment

93. The survey station in which an astronomical observation taken is called as

1. Triangulation station
2. Traverse station
3. Laplace station
4. Satellite station

94. In SRTM the operating two sets of radar antennas are separated by a baseline length of

1. 60 m
2. 30 m
3. 10 m
4. 60 cm

95. The primary goal of TanDEM-X is the generation of

1. Moderate resolution DEM with displacement
2. High resolution global DEM data
3. Global Landslide database
4. None of the above

96. The azimuth resolution of Medium Resolution SCANSAR MRS- RISAT product

1. 8 m
2. 18 m
3. 24 m
4. 50 m

97. PPD refers to

1. Polarimetric Phase Distance
2. Polarimetric Phase Direction
3. Polarimetric Phase Decomposition
4. Polarimetric Phase Difference

98. Identify the condition of the surface for RISAT data when $h = 1\text{ cm}$ and $r = 65^\circ$ according to Rayleigh criteria

1. Smooth
2. Rough
3. Intermediate
4. Cannot be estimated from the given inputs

99. GAGAN stands for

1. GPS Aided Geo Augmented Navigation
2. GPS Augmented Geo Aided Navigation
3. GPS Active Geo Augmented Navigation
4. GPS Arranged GIS Augmented Navigation

100. Setback operation is a part of

1. Buffer analysis
2. Network analysis
3. Surface analysis
4. None of the above

101. Polarization of wave follows

1. Electric Field
2. Magnetic Field
3. Both Electric and magnetic field
4. None of the above

102. Bayesian classification principle consider the following components

1. Probability distribution of the selected feature in the entire population
2. Prior probability that the selected feature belongs to the questionable class
3. Conditional probability that the selected feature can be obtained from the questionable class
4. All of the above

103. How many different shades of grey are there in a colour RGB system in which each RGI image is an 8-bit image

1. 256
2. 128
3. 124
4. 126

104. Resampling is done to apply correction on pixel with respect to its

1. Value
2. Location
3. Both
4. None of the above

105. Image destriping is a

1. Point operation
2. Line operation
3. Local operation
4. Global operation

106. One of this can be done without operator's intervention

1. Thresholding
2. Clustering
3. Density Slicing
4. Contrast Stretch

107. A multispectral scanner is

1. Non-imaging, scanning
2. Imaging, non-scanning
3. Image plane scanning
4. Object plane scanning

108. Morphological filters work with this property of an image object

1. Context
2. Radiometric
3. Geometric
4. Texture

109. A standard data product is corrected for

1. Radiometry
2. Geometry
3. Both
4. None of the above

110. Leaf Area Index signifies

1. The canopy structure of the vegetation
2. Structure of the leaf
3. Structure of the tree
4. Height of the canopy

111. The Soil Moisture available in a catchment can be estimated using

1. ALTM
2. Optical Scanner
3. Microwave Sensor
4. OCM Sensor

112. Ocean Colour Monitor is mainly used for the study of

1. Sediment Transport
2. Wave Spectrum
3. Chlorophyll
4. Currents

113. Water content in the vegetation can be obtained from

1. Reflectance in wavelength $1.4 \mu m$ and $1.9 \mu m$
2. Reflectance in wavelength $2.7 \mu m$
3. 1 & 2
4. Reflectance above $1.3 \mu m$

114. Which one of the following methods uses remote sensing for population estimation?

1. Spatial Curve Fitting Method
2. Dwelling Unit Method
3. Component Analysis Method
4. Mathematical Modelling Method

115. Accident Analysis requires the use of

1. Topographical Surveys
2. Terrestrial Photogrammetry
3. X Ray Photogrammetry
4. Topomatic Photogrammetry