Seat No.

M.Sc. (Semester - I) (CBCS) Examination Mar/Apr-2018
Geoinformatics
INTRODUCTION TO GEOGRAPHY

Time: 2½ Hours   Max. Marks: 70

Instructions: 1) Answers any five questions.
2) All questions carry equal marks.
3) Question 1 is compulsory and should be answered in the question paper.
4) Answer any two essay questions from Q.2, 3 & 4.
5) Answer any two short notes questions from Q.5, 6 & 7.
6) Draw neat and labeled diagrams wherever necessary.

Q.1 Fill in the blanks with appropriate choice:-   **14**

1) Which of the following is the most important element of the ecosystem?
   a) Food chain   b) Food web
   c) Energy Flow   d) Ecological Succession

2) India has both floods and droughts because
   a) Behavior of monsoon is highly variable
   b) The relief of India is highly uneven
   c) The size of the country is very large
   d) Monsoon causes heavy rainfall in a few months

3) The variability of monsoon rain is highest over _____.
   a) Central India   b) North West India
   c) Eastern India   d) North East India

4) Agricultural region is a _____.
   a) Natural   b) Homogeneous
   c) Nodal   d) Functional

5) How many major bio-geographic regions are there in India?
   a) 7   b) 8
   c) 9   d) 10

6) Who modified the crop-combination method propounded by J. C. Weaver?
   a) Doi   b) S. S. Bhatia
   c) S. M. Rafiullah   d) Jasbir Singh

7) In Koppen's classification of climate the symbol Aw refers to
   a) Monsoon climate   b) Tropical rainforest climate
   c) Steppe climate   d) Tropical savanna climate

8) The transition zone between two ecosystem is called
   a) Biotope   b) Ecotone
   c) Biome   d) Habitat

9) The Yarlung Zangbo River, in India is known as
   a) Ganga   b) Indus
   c) Mahanandi   d) Brahmaputra

10) Tropic of Cancer does not pass through _____.
   a) Nepal   b) Bangladesh
   c) India   d) None of the above

11) The leaves of the plants of desert forest are _____.
   a) Pointed in shape   b) Small sized and thorny
   c) Long   d) Broad

12) Which one of the following is used for measuring the speed of wind?
   a) Hydrometer   b) Barometer
   c) Anemometer   d) Thermometer

13) The coldest hour of the day is approximately
   a) 3 a.m.   b) 5 a.m.
   c) 9 p.m.   d) 10 a.m.

14) Which of the following soils is most suitable for the cultivation of cotton in India?
   a) Red soil   b) Laterite soil
   c) Alluvial soil   d) Regur Soil

Q.2 Define Atmosphere? Discuss structure, Composition and energy budget of atmosphere.   **14**

Q.3 Elaborate the term Settlement? Give the types and pattern of Rural Settlement.   **14**

Q.4 Write a full note on Biodiversity.   **14**

Q.5 **Write a short note on.**   **14**
   a) Soil Profile
   b) Precipitation

Q.6 **Write account on.**   **14**
   a) Winds
   b) Climate

Q.7 **Write brief note on.**   **14**
   a) Concept of Planning
   b) Agriculture regions in India

Seat No.

M.Sc. (Semester - I) (CBCS) Examination Mar/Apr-2018
Geoinformatics
INTRODUCTION TO GEOLOGY

Time: 2½ Hours   Max. Marks: 70

Instructions: 1) Attempt any five questions.
2) All Questions carry equal marks.
3) Question no.1 is compulsory.
4) Attempt any two essay questions from Q.No.2, 3 and 4.
5) Attempt any two short note questions from Q.No.5, 6 and 7.
6) Draw neat sketches wherever necessary.

Q.1   Choose the alternatives given below.   14

1) Specific gravity for most of the building stones lies between:
   a) 1.5-2.0   b) 2.0-2.5
   c) 2.5-3.0   d) 3.0-3.5

2) The selection of a dam site is made mainly based on:
   a) The geology of the site   b) Cost of the dam
   c) Environmental study   d) Dam type

3) A discordant type of igneous intrusion is:
   a) Bed   b) Sill
   c) Lava   d) Dyke

4) In thermal metamorphism _____ is an active factor.
   a) Temperature   b) Pressure
   c) Chemical fluids   d) Stress

5) The metal content of an ore is called _____.
   a) Gangue   b) Tenor
   c) Grade   d) Mineral

6) Minerals in an ore deposit having no economic value are known as _____.
   a) Ore   b) Gossan
   c) Gangue   d) Tenor

7) If the hanging wall moves up relative to the footwall, the fault is called
   _____ fault.
   a) Normal   b) Thrust
   c) Gravity   d) Peripheral

8) Shale is _____ type of sedimentary deposit.
   a) Rudaceous   b) Aranaceous
   c) Argillaceous   d) Chemical

9) Thermal metamorphism of limestone gives rise to _____.
   a) Hornfels   b) Quartzite
   c) Hornblende gneiss   d) Marble

10) All minerals are of equal size in _____ texture.
    a) Poikilitic   b) Ophitic
    c) Granitic   d) Porphyritic

11) Hill shows _____ contour value at the centre.
   a) Highest
   b) Lowest
   c) Moderate
   d) Mean

12) Dip and strike are _____ to each other.
   a) Parallel
   b) Same
   c) Perpendicular
   d) Lower

13) Pyrite is an ore of _____.
   a) Copper
   b) Lead
   c) Zinc
   d) Iron

14) _____ mineral shows one set of cleavage.
   a) Muscovite
   b) Orthoclase
   c) Quartz
   d) Augite

Q.2 What is unconformity? Explain various types of unconformity.   **14**

Q.3 Explain role of engineering geology in mining industry.   **14**

Q.4 Explain classification of igneous rocks.   **14**

Q.5 **Explain the following:-**   **14**
   a) Pyroxene group
   b) Feldspar group

Q.6 **Write note on:-**   **14**
   a) Zinc deposits
   b) Processes for formation of gold deposits

Q.7 **Write a brief note on:-**   **14**
   a) Types of tunnels
   b) Metamorphic zones

Seat No.

M.Sc. (Semester - II) (CBCS) Examination Mar/Apr-2018
Geoinformatics
INTRODUCTIONS TO REMOTE SENSING

Time: 2½ Hours   Max. Marks: 70

Instructions: 1) Attempt total five questions.
          2) Questions No.1 Compulsory.
          3) Attempt any two essay questions from Question.No.2, 3, 4.
          4) Attempt any two short note questions from Question No.5, 6, 7.
          5) All questions carry equal marks.
          6) Draw neat and labeled diagrams wherever necessary.

Q.1 **Fill in the blanks:-**   **14**
1) ERTS stands for _____.
   a) Earth Revolving Technology Satellites
   b) Earth Resources Technology Satellites
   c) Earth Resources Technology System
   d) Evolution Resources Technology System

2) The word radar is an acronym for _____.
   a) Radio Detection and Rays   b) Reflection Detection and Range
   c) Radio Device and Range   d) Radio Detection and Ranging

3) Time of one revolution of geostationary satellite around the earth is _____ hrs.
   a) 48   b) 12
   c) 72   d) 24

4) _____ agency provide remote data.
   a) SAC   b) ICAR
   c) NRSC   d) ISEC

5) The spatial resolution for PAN is _____.
   a) 23.5 m   b) 10.7 m
   c) 5.8 m   d) 15 m

6) A ratio of map distance to ground distance called as _____.
   a) Map projection   b) Map scale
   c) Rectify   d) Georeferancing

7) Spatial resolution of LISS-I is _____.
   a) 10 m   b) 90
   c) 70   d) 72.5 m

8) Altitude of Geostationary satellite is _____.
   a) 20000 Km   b) 36000 Km
   c) 900 Km   d) 700 Km

9) _____ wavelength can penetrate clouds.
   a) Optical   b) Thermal
   c) Microwave   d) All of the above

10) Water appears _____ in comparison soil and rock in day time thermal images.
   a) Red
   b) Brighter
   c) Darker
   d) Reddish

11) IRS means _____.
   a) Italian Remote Sensing Satellite
   b) Indian Regional Space Centre
   c) Indian Remote Sensing
   d) All of the above

12) IFOV stands for _____.
   a) Incident Field of View
   b) Instantaneous Field of View
   c) Incident Front of View
   d) Instantaneous Front of View

13) The spectral band for which atmosphere is relatively transparent is known as _____.
   a) Atmospheric window
   b) Transmission
   c) Absorption
   d) Scattering

14) _____ government in joint venture with Sweden and Belgium developed SPOT series of Satellite.
   a) India
   b) Russia
   c) USA
   d) France

Q.2 Explain fundamental principle of remote sensing and describe types of remote sensing. **14**

Q.3 What is photogrametry and explain types of aerial photography? **14**

Q.4 How remote sensing technology applied geographical activity mapping and why? **14**

Q.5 **Write short note on.** **14**
   a) IIRS
   b) Along track scanning

Q.6 **Describe in brief :** **14**
   a) Spectral signatures of soil, water and vegetation
   b) Across track scanning

Q.7 **Write an account on:** **14**
   a) Advantages of remote sensing
   b) Indian history of remote sensing

Seat No.	

M.Sc. (Semester - II) (CBCS) Examination Mar/Apr-2018
Geoinformatics
INTRODUCTION TO GIS AND GPS

Time: 2½ Hours   Max. Marks: 70

Instructions: 1) Answers any five questions.
            2) All questions carry equal marks.
            3) Question 1 is compulsory.
            4) Answer any two from Q.2, 3 & 4.
            5) Answer any two questions from Q.5, 6 & 7.

Q.1 Select the answer among the following:-   **14**

1) Computer mapping was in the dark age year _____.
   a) 1960-1975   b) 1975-1990
   c) Year Before 1960s   d) 1990-2010

2) The role of interpolation in GIS is to fill the gap between the ___ data point.
   a) Continuous   b) Raster
   c) Vector   d) Observed

3) The GPS system controlled by _____.
   a) US army   b) France army
   c) England army   d) None of these

4) The 1st vector GIS called _____.
   a) Odyssey   b) GIMMS
   c) GRID   d) GEO MAP

5) _____ was 1st used the term geographic information system.
   a) Roger Tomlinson   b) John Snow
   c) Rachael a. Macdonnell   d) None of these

6) _____ is Indian navigational system.
   a) Indian Rapid Satellite System
   b) Indian Regional Navigational System
   c) Indian Regional Navstar System
   d) None of these

7) WGS84 is stand for _____.
   a) World Geographical System 1984
   b) World Geodetic System 1984
   c) World Geological System 1984.
   d) All of these

8) _____ is the procedure of identifying a set of features as belonging to a groups and defining patterns.
   a) Classification   b) Neighborhood
   c) Overlay   d) All of the above

9) Neighborhood operations also called _____ analysis.
   a) Proximity   b) Specific location
   c) Data analysis   d) None of these

10)_____ analysis involve analyzing the flow of networks a connected set of lines and point nodes.
   a) Domain analysis
   b) Vector analysis
   c) Network analysis
   d) All of these

11) _____ is a systematic drawing of parallel of latitude and meridians of longitude on a plane surface for the whole earth or a part of it on a certain scale.
   a) Conical Projection
   b) Azimuthal projection
   c) Map Projection
   d) Polyconic

12) A map is an important tool of _____.
   a) Geography
   b) Political
   c) Human
   d) All of the above

13) TIN stands for _____.
   a) Triangular Irregular Network
   b) Triple Irregular Network
   c) Both
   d) None

14) DOD stands for _____.
   a) Department of defense
   b) Deformation
   c) Different
   d) None

Q.2 Explain the spatial data model and its advantages. **14**

Q.3 Define projection? Explain types of Projection. **14**

Q.4 Define GIS? Components and Advantages of GIS and DPS. **14**

Q.5 **Write short notes on:** **14**
   a) Advantages of Topology
   b) Errors of topology

Q.6 **Write briefly on the following.** **14**
   a) Vector and raster Data Structure
   b) DBMS

Q.7 **Write small accounts on:** **14**
   a) UTM
   b) Application of GPS.

Seat No.	

M.Sc. (Semester - II) (CBCS) Examination Mar/Apr-2018
Geoinformatics
DIGITAL IMAGE PROCESSING

Time: 2½ Hours　　　　　　　　　　　　　　　　　Max. Marks: 70

Instructions: 1) All questions carry equal marks.
　　　　　　　2) Q. 1 is compulsory.
　　　　　　　3) Answer any two questions from Q.2, 3 & 4.
　　　　　　　4) Answer any two questions from Q.5, 6 & 7.
　　　　　　　5) Answer any five questions.

Q.1　Fill in the blanks:-　　　　　　　　　　　　　　　　　　　14

1) _____ is the one of the format of digital image file.
   a) DNA　　　　　　　　　　　　b) DIP
   c) BSQ　　　　　　　　　　　　d) SQL

2) Errors in the image Matrix known as _____.
   a) RMS error　　　　　　　　　b) Kappa Coefficient
   c) Rectification　　　　　　　　d) Geometric Error

3) In _____ phase of image processing where correct the distorted or degraded image for faithful presentation of original scene.
   a) Classification　　　　　　　b) Enhancement
   c) Rectification　　　　　　　　d) Modification

4) In _____ file format of the image where band wise data store.
   a) BIL　　　　　　　　　　　　b) BIP
   c) CCD　　　　　　　　　　　　d) BSQ

5) _____ is the step not belongs to image enhancement.
   a) Band ratio　　　　　　　　　b) Geometric errors
   c) Contrast stretch　　　　　　d) Spatial filtering

6) _____ is the pictorial representation of the real scene.
   a) Digital image　　　　　　　b) Camera
   c) Photo　　　　　　　　　　　d) Map

7) In Digital Image, data record in the Digital Number per pixel called as ____.
   a) Brightness Value　　　　　　b) Numerical Value
   c) Picture　　　　　　　　　　d) RS Value

8) _____ enhancement technique expand the range of the brightness value.
   a) Contrast　　　　　　　　　　b) Spatial Filter
   c) Edge Enhancement　　　　　d) Band Ratio

9) Transformation of remotely sensed image to get scale and projection is called _____.
   a) Atmospheric Correction　　　b) Radiometric Correction
   c) Geometric Correction　　　　d) Remote Data Correction

10) _____ is displayed by placing the infrared, red, green in the red, green and blue frame buffer memory.
   a) False Color Composition (FCC)　b) True Color Composition (TCC)
   c) Color Composition　　　　　　d) None of above

11) In _____ classification techniques the input of the training areas data are not required for classification.
   a) Supervised   b) Image Classification
   c) Unsupervised   d) Spatial filtering

12) _____ errors correspond to non diagonal column elements.
   a) Commission   b) Omission
   c) Kappa   d) All of the above

13) In _____ filter block the High frequency components for smoothen the image.
   a) Low Frequency (LFF)   b) Spatial
   c) High Frequency (HFF)   d) convolution

14) _____ used for correction of missing scan line.
   a) Averaging method   b) Atmospheric method
   c) Dark Pixel Subtraction   d) Regression

Q.2   What is image Classification? Explain the methods of Image Classification.   **14**

Q.3   Discuss the importance of image Enhancement? Explain any two enhancement methods with detail.   **14**

Q.4   What is Digital image? Discuss the Digital Image File Storage Formats.   **14**

Q.5   **Write short notes on:**   **14**
   a) Correction of missing scan line
   b) Contract stretching method

Q.6   **Write briefly on the following.**   **14**
   a) Spatial Filtering
   b) Atmospheric Correction

Q.7   **Write small account on:**   **14**
   a) Geometric Correction
   b) Error matrix

Seat No.

M.Sc. (Semester - III) (New) (CBCS) Examination Mar/Apr-2018
Geoinformatics
SPATIAL ANALYSIS

Time : 2½ Hours   Max. Marks: 70

Instructions: 1) Attempt any five questions.
2) Questions No.1 is compulsory and should be answered in the Question Paper.
3) Attempt any two essay questions from Question No. 2, 3 and 4.
4) Attempt any two short note questions from Question No. 5, 6 and 7.
5) Figures to the right indicate full marks.
6) Draw neat and labeled diagrams wherever necessary.

Q.1 Choose the correct alternative given in the bracket.   14

1) _____ is a measure of the accuracy of an entire geo spatial data set.
   a) Statistical significance   b) Overshoot
   c) Root mean squere error   d) P-value

2) The process of using data points with known values to estimate values at known points (in same region or nearby region) is called spatial _____
   a) Prediction   b) Interpolation
   c) Adjustment   d) Reflection

3) _____ is a representation on strategy involving sampling attributes at fixed intervals.
   a) vector   b) Raster
   c) krigging   d) IDW

4) _____ is used to identify a zone of influence of fixed width draw around any map feature.
   a) clipping   b) intersecting
   c) union   d) buffering

5) The first uses of map based analysis in Dr. John snow of London in _____
   a) 1854   b) 1754
   c) 1984   d) 1870

6) _____ creates a composite map by combining the geometry and attributes of the input data sets.
   a) Geometry   b) Topology
   c) Overlay operation   d) Projection

7) _____ are used to move people, transport goods, communicate information and control the flow of matter and energy.
   a) Topology   b) Geometry
   c) Networks   d) Spatial

8) _____ software incorporate a cluster tolerance option that force nearby lines to be snapped together if they fall within a user-specified distance.
   a) GIS   b) Remote sensing
   c) GPS   d) DIP

9) A spatial network is a graph in which the vertices or edges are spatial elements associated with _____ object.
   a) Geometry
   b) Geology
   c) Geography
   d) none of these

10) _____ deals with the spatial distribution of surface information in terms of a three-dimensional structure.
   a) point pattern
   b) cost distance
   c) clustered
   d) surface analysis

11) The Map Algebra language is a programming language developed to perform _____ modeling.
   a) geographic
   b) geologic
   c) cartographic
   d) none of these

12) When data values are not available for particular cells, they are described as _____.
   a) grid cell
   b) data cell
   c) meta data cell
   d) no data cell

13) _____ that provides operations that work on each group of cells of identical values.
   a) local function
   b) focal function
   c) zonal function
   d) global function

14) In the world of GIS, another term for the property of connectivity is _____
   a) topology
   b) proximity
   c) Boolean
   d) fuzzy

Q.2 Describe DEM and its applications? **14**

Q.3 Explain in details Network analysis? **14**

Q.4 What is point pattern analysis? Explain the types of spatial model? **14**

Q.5 **Write short note on.** **14**
   a) Universal Transverse Mercator (UTM)
   b) Local and focal operation

Q.6 **Write in brief on:** **14**
   a) Hydrological tool
   b) Vectorization

Q.7 **Write an account on:** **14**
   a) C3 matrix
   b) Overlay operation

Seat No.

M.Sc. (Semester - III) (Old) (CBCS) Examination Mar/Apr-2018
Geoinformatics
SPATIAL ANALYSIS

Time : 2½ Hours   Max. Marks: 70

Instructions: 1) Attempt any five questions.
2) Questions No.1 is compulsory and should be answered in the Question Paper.
3) Attempt any two essay questions from Question No. 2, 3 and 4.
4) Attempt any two short note questions from Question No. 5, 6 and 7.
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1) _____ is a measure of the accuracy of an entire geo spatial data set.
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   b) data cell
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   b) focal function
   c) zonal function
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Q.3 Explain in details Network analysis? **14**

Q.4 What is point pattern analysis? Explain the types of spatial model? **14**

Q.5 **Write short note on.** **14**
   a) Universal Transverse Mercator (UTM)
   b) Local and focal operation

Q.6 **Write in brief on:** **14**
   a) Hydrological tool
   b) Vectorization

Q.7 **Write an account on:** **14**
   a) C3 matrix
   b) Overlay operation

Seat No.	

M.Sc. (Semester - IV) (New) (CBCS) Examination Mar/Apr-2018
Geoinformatics
GEOINFORMATICS APPROACH FOR NATURAL RESOURCE MANAGEMENT

Time: 2½ Hours   Max. Marks: 70

Instructions: 1) All questions carry equal marks.
2) Q.1 is compulsory.
3) Answer any two questions from Q.2, 3 & 4.
4) Answer any two questions from Q.5, 6 & 7.
5) Answer any five questions.

Q.1 **Select the answer among the following:-**   **14**
1) SDI stands for _____.
   a) Spatial Data Interface   b) Spatial Data Intention
   c) Spatial Data Infrastructure   d) Spatial Data International

2) Iron oxide in sandy loam soil causes an increase in reflectance in the ____ portion of the spectrum.
   a) Red   b) Blue
   c) Green   d) None of these

3) If the surface soil salt concentration increases generally reflectance also_____.
   a) Decreased   b) Increased
   c) Neither increased nor decreased   d) None of these

4) Which one of the dominant factor of Leaf reflectance.
   a) Leaf pigments   b) Leaf size
   c) Leaf thickness   d) None of these

5) The infrared portion of EMR is lies between
   a) $0.7 - 1.3$ μm   b) 0.7 mm $- 14$ μm
   c) 0.5 mm $- 1$ m   d) $0.4 - 0.7$ μm

6) A Passive Sensor uses _____.
   a) Flash light as a source of energy b) Its own source of energy
   c) Sun as the source of energy   d) None of these

7) In case of reflection and refraction of electromagnetic radiation
   a) Angle of refraction = sum of the angles of incidence and refraction
   b) Angle of incidence = angle of reflection
   c) Angle of incidence = angle of refraction
   d) All of the above

8) Absorption spectra of β – carotene, which absorbs primarily in the _____ Wavelength energy
   a) Blue   b) Red
   c) Green   d) None of these

9) Relative Observations of the same area at equal interval of time are useful to monitor the dynamic phenomena.
   a) Vegetation cover   b) Forest cover
   c) Snow cover   d) All of these

10) The greater the number of leaf layers in a healthy, mature canopy, theoretically the greater the
   a) Infrared reflectance
   b) Lesser reflectance
   c) Nothing reflected
   d) None of these

11) SMAP satellite launched by _____ for soil moisture measurement.
   a) IIRS
   b) ESA
   c) NASA
   d) None of these

12) Arc SDE stands for _____.
   a) Spectral Data Engine
   b) Space data enhance
   c) Spatial data enhance
   d) Spatial Data Engine

13) It is also possible to differentiate between some soil texture using _____ backscatter characteristics.
   a) RADAR
   b) LANDSAT
   c) MODIS
   d) ASTER

14) _____ statement is true about the capabilities of GIS.
   a) Data Capture and Preparation
   b) Data Manipulation and analysis
   c) Data Management , including Storage
   d) All of the above

Q.2 What is meant by forest stock map? Discuss methodology for Deforestation and mapping of forest using remote sensing and GIS. **14**

Q.3 How will you use remote sensing and GIS for Soil type identification and soil moisture mapping? **14**

Q.4 What is hydrologic cycle? Describe the system representation of hydrologic cycle with neat sketch? **14**

Q.5 **Write short notes on:** **14**
a) Land Use Land Cover Mapping
b) Biodiversity

Q.6 **Write briefly on the following.** **14**
a) Water conservation
b) Crop acreage estimation

Q.7 **Write brief on :-** **14**
a) Crop inventory
b) Ocean colour mapping

Seat No.	

M.Sc. (Semester - IV) (New) (CBCS) Examination Mar/Apr-2018
Geoinformatics
APPLICATION OF RS AND GIS IN DISASTER MANAGEMENT

Time: 2½ Hours   Max. Marks: 70

Instructions: 1) All questions carry equal marks.
2) Question One is compulsory.
3) Answer any two essay questions from Q.2, 3 & 4.
4) Answer any two short note questions from Q.5, 6 & 7.
5) Answer any five questions.
6) Draw neat sketches wherever necessary.

Q.1 A) Choose the alternatives given below. 14

1) CRZM means
   a) Costal Red Zone
   b) Coastal Regulatory Zone
   c) Coastal Repertory Zone
   d) Coastal Regulation Zone

2) Bhuj Earthquake took place in _____.
   a) 2000
   b) 2002
   c) 2001
   d) 2003

3) Sea water intrusion may cause due to _____.
   a) Pollution of water
   b) Mixing of factory waste into sea
   c) Over rainfall in area
   d) Over exploitation from ground water

4) Where is the hole in the Ozone Layer?
   a) Artica
   b) America
   c) Antarctica
   d) Africa

5) _____ only confirmed active volcano in South Asia.
   a) Sant merry's Island
   b) Lakshadweep islands
   c) Sindudurge Island
   d) Barren Island

6) Fukushima Daiichi nuclear disaster took place in _____.
   a) Japan
   b) China
   c) Korea
   d) India

7) Most of the earthquakes in world take place along _____.
   a) Himalayan Mountains
   b) Mid Ocean ridges
   c) Alpine mountains
   d) Coastal Zones of America

8) Desertification of land can be easily detected using _____ Resolution.
   a) Spectral
   b) Radiometric
   c) Temporal
   d) None of the above

9) _____ Satellite will help in identification of cyclone movement.
   a) Kalpana
   b) LISS 4
   c) IKONOS
   d) INSAT 3D

10) Large-scale circulation of winds around a central region of high atmospheric pressure, clockwise in the Northern Hemisphere, Counterclockwise in the Southern Hemisphere
   a) Cyclone
   b) Tropical cyclone
   c) Anticyclone
   d) Subtropical cyclone

11) Which of the following is the green house gas?
   a) CO
   b) Water Vapor
   c) CO_2
   d) Both b and c

12) The Tropical Cyclones of hurricane force in the western North Pacific are known as _____.
   a) Thunderstorm
   b) Typhoons
   c) Tornadoes
   d) All the above

13) Debris flow is the term related to
   a) Drought
   b) Sea level movement
   c) Landslide
   d) Flooding

14) _____ factor responsible for Sea Level Change.
   a) High precipitation
   b) Melting Glaciers
   c) Silting of rivers
   d) Decrease in aquatic life

Q.2 Write a note on factors responsible for landslide and GIS based case study on Landslides. **14**

Q.3 Explain the effects and causes of Industrial and mining disaster. **14**

Q.4 Write a note on flood plan area analysis and management. **14**

Q.5 **Write short notes on:** **14**
   a) Flood prone zones in India
   b) Short and long term effects of desertification

Q.6 **Explain the following:-** **14**
   a) Major disasters in India
   b) Types of Hazards

Q.7 **Explain the following:-** **14**
   a) Global Warming
   b) Volcanic Hazards

Seat No.	

M.Sc. (Semester - IV) (New) (CBCS) Examination Mar/Apr-2018
Geoinformatics
WEB GIS

Time: 2½ Hours   Max. Marks: 70

Instructions: 1) All questions carry equal marks.
2) Question 1 is compulsory.
3) Answer any two questions from Q.2, 3 & 4.
4) Answer any two questions from Q.5, 6 & 7.
5) Answer any five questions.
6) Draw neat and labeled diagrams wherever necessary.

Q.1   Fill in the blank with correct choice: **14**

1) The physical connection between networked computing devices is an established method using either _____.
   a) Cable media or wireless media
   b) Web GIS
   c) Computer networking
   d) 3D analysis

2) TCP stands for _____.
   a) Telephone control protocols
   b) Transmission control protocols
   c) Tree shaped control protocols
   d) None of these

3) Today, three-dimensional geographic information system (3D-GIS) are typically reduced to a three-dimensional _____ of geo-data
   a) Visualization
   b) 3D analysis
   c) Remote sensing
   d) Computer network

4) _____ physically or logically connect together multiple workstations, terminals, and peripheral devices via a single cable or shared medium.
   a) LAN
   b) MAN
   c) WAN
   d) Computer network

5) URL stands for _____
   a) Universal resource locator
   b) United resource locator
   c) Universal range location
   d) None of these

6) What is '*Metadata*'?
   a) It is 'data about data'
   b) It is 'meteorological data'
   c) It is 'oceanic data'
   d) It is 'contour data'

7) Successful spatial analysis needs
   a) Appropriate software
   b) Appropriate hardware
   c) Competent user
   d) All of the above

8) A _____ is a set of regularity spaced (and contiguous) cells with associated (field) values. The associated values represent call values, not point values. This means that the value for a cell is assumed to valid for all locations within the cell
   a) Crystal
   b) Raster
   c) Segment
   d) Polygon

9) A 'data model' is a language that allows the definition of
   a) The 'structures' that will be used to store the base data
   b) The 'integrity constraints' that the stored data has to obey at all moments in time
   c) The 'computer programs' used to manipulate the data
   d) All of the above

10) Which of the following relationship is correct?
    a) Point : (0-Simplex)
    b) Line segment : (1-simplex)
    c) Triangle : (2-simplex)
    d) Tetrahedron : (3-simplex)

11) Which of the following protocols is used for WWW?
    a) FTP
    b) http
    c) W3
    d) All of the above

12) Voice mail, E-mail, Online service, the Internet and the WWW are all example of
    a) Computer categories
    b) Connectivity
    c) Telecommunicating
    d) None of the above

13) A _____ enables field – based personnel to capture, store, update, manipulate, analyze and display geographic information.
    a) QGIS
    b) Arc GIS
    c) Web GIS
    d) Mobile GIS

14) _____ detects traffic situations, transmits them to control centre via communication network, and then develops traffic control strategies by combing all kinds of traffic information.
    a) Advanced Traffic Management System (ATMS)
    b) Advanced Traveller Information Systems (ATIS)
    c) Advanced Public Transportation System (APTS)
    d) Emergency Management System (EMS)

Q.2 What is computer network? Explain in brief Network topologies. **14**

Q.3 Discuss the types of components of GIS. Describe in detail the logic and data components. **14**

Q.4 What is Web GIS? Explain the areas of its applications in environment and natural resource management. **14**

Q.5 **Describe in brief the following:** **14**
a) Data Input to a GIS
b) Communication protocols

Q.6 **Explain the following:-** **14**
a) Internet
b) Web mapping

Q.7 **Explain the following:-** **14**
a) Geoserver
b) GML data sharing