SLR- RM- 546

Seat No.	

M.Sc. (Geoinformatics) (Semester I) (New) (CBCS) Examination, 2017
INTRODUCTION TO GEOGRAPHY

Day & Date: Tuesday,18-04-2017 Max Marks: 70

Time: 10.30 PM to 01.00 PM

N. B.: *1) Attempt totally five questions.*
2) All Questions carry equal marks.
3) Question no.1 is compulsory
*4) Attempt **any two** questions from Q.NO.**2, 3** and **4***
*5) Attempt **any two** questions from Q.No.**5, 6** and **7***
6) Draw neat and labeled diagrams wherever necessary

Q.1 Fill in the gaps with correct option from those given below: **14**

1) _____ is not a green house gas.
a) Methane b) Carbon dioxide
c) Nitrogen d) Nitrous oxide

2) The World Ozone-Day is observed on _____.
a) 1st September b) 16th September
c) 1st October d) 16th October

3) The normal lapse rate in atmosphere is _____.
a) 4^0 C per km b) 5^0 C per km c) 6.5^0 C per km d) 7.5^0 C per km

4) The energy flows from one level to another in a sequential pattern called _____.
a) food chain b) food web
c) trophic structure d) none of these

5) Conventional, orographic and frontal are the types of _____.
a) Cyclones b) Precipitation c) Winds d) climates

6) The lowest class of population is known as _____.
a) Village b) Hamlet c) Town d) City

7) The Border Road Development Board was set up in _____.
a) 1960 b) 1965 c) 1970 d) 1975

8) Tamilnadu receives much of its rainfall through the _____.
a) Southwest Monsoon b) Western disturbance
c) Northeast Monsoon d) Tropical cyclones

9) Which of the following seas does not have land boundaries?
a) Red sea b) Adriatic sea
c) Sargosso sea d) Aegraon sea

10) In North America region _____ local winds are found.
a) Chinook b) Mistral c) Solano d) Burran

11) _____ urban form model focuses on transportation arterials.
a) Sector Model b) Concentric model
c) Periferal model d) Multiple nuclei model

12) _____ is not an indicator of the cultural landscape
a) House type b) Kinship
c) Size of settlements d) Transport

13) _____ types of cloud do not fit into the classification based on Height.
a) Cumulus and stratocumulus
b) Nimbostratus and cumulonimbus
c) Cirro-cumulus and cumulus
d) Cumulus and cumulonimbus

14) The jet streams have an average velocity of _____ km/hr in winter and _____ km/hr in summer respectively.
a) 40 and 160 b) 120 and 50 c) 80 and 120 d) 100 and 30

Q.2 Explain the terms Climate and Weather **14**

Q.3 Give an account of major types of agriculture regions in India and add a note on their importance **14**

Q.4 What is soil? Discuss their types and soil profile **14**

Q.5 **Write a brief account of** **14**
A) Concept of Planning
B) Bio diversity

Q.6 **Explain briefly** **14**
A) Structure of atmosphere
B) Town

Q.7 **Enumerate the following** **14**
A) Types of precipitation
B) Forest eco-system

SLR- RM - 547

Seat No.	

M.Sc. (Geoinformatics) (Semester I) (New) (CBCS) Examination, 2017
INTRODUCTION TO GEOLOGY

Day & Date: Thursday,20-04-2017 Max Marks: 70

Time: 10.30 AM to 01.00 PM

N.B. : *1) Answer any Five Questions*
2) All Questions carry equal marks
3) Question No. 1 is Compulsory
4) Attempt any two from Q.NO. 2, 3 and 4
5) Attempt any two from Q. NO. 5, 6 and 7

Q.1 Choose the correct answer. **14**

1) Smiths test is done for _____.
   a) Durability b) Frost and fire resistance
   c) Density d) Porosity

2) Most resistant rock for weathering is **_____.**
   a) Quartzite b) Marble c) Limestone d) Slate

3) Igneous rocks with high concentration of Mg and Fe are likely to have formed form, magmas originally derived from **_____.**
   a) Sial b) Sima c) Mantle d) Outer core

4) Tajmahal of Agra and Victoria Memorial of Calcutta are Constructed by Marbles quarried from **_____.**
   a) Udaipur b) Makrana c) Jabalpur d) Chittorgarh

5) Which of the following lists is arranged in order from lowest to Highest grade of metamorphic rock?
   a) gneiss, slate, schist, phyllite b) gneiss, schist, phyllite, slate
   c) slate, gneiss, phyllite, schist d) slate, phyllite, schist, gneiss

6) Highest salinity is found in **_____.**
   a) Dead sea b) Indian ocean
   c) Pacific ocean d) Atlantic ocean

7) The hanging wall has moved up relative to the foot wall with fault Dip below 45 degrees.
   a) Reverse fault b) Thrust fault
   c) Normal fault d) None

8) The outer core is most likely composed of **_____.**
   a) Silicon-oxygen b) magnesium-helium
   c) aluminium-chlorine d) iron-nickel

9) Which of the following metal is found in the earth's crust as both a native element and as a compound?
a) Argon b) Copper c) Chlorine d) Silicon

10) A sedimentary layer whose thickness is less than one centimeter Known as _____.
a) Stratum b) Lamina c) Varve d) none of these

11) Which of the following is Clastic sedimentary rock
a) Conglomerate b) Sandstone
c) Breccia d) All the above

12) Granite rock is an igneous rock and it contains _____.
a) Silica content more than 66%
b) Silica content between 52 – 66%
c) Silica content between 45 – 52%
d) Silica content less than 45%

13) Most favourable site for the construction of Dam is _____.
a) Upstream dipping beds b Downstream dipping beds
c) Jointed beds d) Faulted beds

14) Khetri is famous for _____ type of deposits.
a) Lead b) Copper c) Gold d) Zinc

Q.2 What is a rock cycle? Write a briefly classification of Igneous and Sedimentary rock. **14**

Q.3 What is Geological consideration for construction of tunnels? **14**

Q.4 What are the Geological and Topographical maps and write outcrops, their trends with reference to slpoe. **14**

Q.5 **Write short notes on** **14**
i. Unconformities and Joints
ii. Coal deposits in Maharashtra

Q.6 **Write briefly on the following** **14**
i. Geological consideration for construction of Dams
ii. Textures of Sedimentary rocks

Q.7 **Bring out the salient aspects of the following** **14**
i. Gold deposit
ii. Silicate Structure

SLR-RM – 555

Seat No.	

M.Sc. Geoinformatics (Semester – II) (New) (CBCS) Examination, 2017
INTRODUCTIONS TO REMOTE SENSING

Day & Date: Wednesday, 19-04-2017 Max. Marks: 70

Time: 10.30 AM to 01.00 PM

N.B. : *1) Attempt **total five** questions.*
*2) Questions **NO.1 Compulsory.***
*3) Attempt **any two** questions from Question.NO.**2 to 4.***
*4) Attempt **any two** questions from Question NO.**5 to 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) Data that describe the geometry of spatial feature called as _____.
   a) External Data b) Spatial Data
   c) Population Data d) None of the above

2) GLONASS is global position system operated by _____ country.
   a) Russia b) Japan c) Europe d) U.S.A.

3) The first aerial photograph taken from kite is credited to an English meteorologist _____.
   a) E.D. Archibald b) Warner
   c) D. Watson d) G. Smith

4) PSLV is the abbreviation for _____.
   a) Polar Space Launch Vehicle
   b) Polar Stationary Launch Vehicle
   c) Polar Satellite Launch Vehicle
   d) Polar Satellite Lift Vehicle

5) LISS means _____.
   a) Linear Image Self Scanning
   b) Line Image Self Scanning
   c) Linear Image Self Support
   d) None of the above

6) In non selective scattering all wavelengths are scattered equally than cloud appears_____.
   a) White b) Black c) Red d) Blue

7) The SPOT satellites are sun synchronous satellite obits at height_____.
   a) 832 km b) 900 km c) 850 km d) 890 km

8) The most important source of electromagnetic energy is ____.
   a) Earth b) Moon c) Atmosphere d) sun

9) The distance between two successive crest or trough is called ___.
   a) Amplitude b) Frequency
   c) Wave number d) Wavelength

10) Geostationary satellites are ideal for
   a) Land mapping b) Meteorology
   c) Communication d) Both b and c

11) The transformation from the spherical geographic grid to a plane co-ordinate system is called as _____.
   a) Map drawing b) Map design
   c) Map projection d) Map sketch

12) _____ windows are the regions in the electromagnetic spectrum for which the atmosphere is transparent.
   a) Natural b) Solar c) Lunar d) Atmospheric

13) FCC is abbreviation for _____.
   a) False Colour Complex b) Few Colour Composite
   c) False Colour Composite d) None

14) French government in joint venture with Sweden and Belgium developed _____ series of satellite.
   a) SPOT b) LANDSAT c) IKONOS d) IRS

Q.2 What is Remote sensing? Write in detail the history of Remote sensing? **14**

Q.3 Explain in detain EMR? **14**

Q.4 Explain in detail along rack and across track scanning? **14**

Q.5 **Write short note on.** **14**
1) Aerial photography
2) Parallex

Q.6 **Describe in brief :** **14**
1) Energy interaction with earth surface
2) Advantages of remote sensing

Q.7 **Write an account on:** **14**
1) Atmospheric windows
2) Image interpretation

Seat No.	

M.Sc. (Geoinformatics) (Semester – II) (New) (CBCS) Examination, 2017
Introduction To GIS & GPS (HCT 2.2)

Day & Date: Friday, 21-04-2017 Max. Marks: 70

Time: 10.30 AM to 01.00 PM

N.B. : *1) Answer any five questions.*
2) All questions carry equal marks
3) Q. no. 1 is compulsory.
4) Attempt any two from Q. no. 2, 3 and 4.
5) Attempt any two from Q. no. 5, 6 and 7.

Q.1 A) Select the correct alternatives. **14**

1) _____is the name of Russian equivalent of GPS.

a) GLASNOST b) IKONOS c) GPESKI d) GLONASS

2) What does 1 mm on a map draw at a scale of 1: 25000 scale map?
a) 50cm b) 5m c) 1500 cm d) 50m

3) DGPS stands for _____
a) Differential Global Positioning System
b) Different Ground Positioning System
c) Defense of Ground Positioning System
d) None of these

4) NAVSTAR stands for____
a) Navigation System Trend and Ranging
b) Navigation Satellite Timing and Ranging
c) National Satellite Timing and Ranging
d) None of these

5) GIS are Computer _____and _____systems that enable users to capture, store, analyze and manage spatially referenced data.
a) Software and Hardware b) System and Hard disk
b) Satellite and Hardware d) All of the above

6) UTM stands for_____
a) Universal Transverse Mercator
b) Universal Trend Mercator
c) Utility Transverse Mercator
d) Utility Trend Mercator

7) NOAA stands for _____
a) National Overall and Area
b) Navigation Oceanic and Atmospheric
c) National Orograph and Atmosphere
d) None of these

8) GPS was invented in _____
a) 1970 b) 1980 c) 1990 d) 1060

9) Map makers use GPS to verify the _____
a) Boundaries b) Roads c) Towns d) Places

10) The history of GIS is started in
a) 1854 b) 1960 c) 1858 d) 1955

11) _____Segment is the vital link in GPS technology main functions of the control segment are.
a) User b) Control c) Space d) Satellite

12) The spatial data using statistical methods and time series.
a) Observation b) Research c) Analysis d) Bands

13) A system which use a spatial data to provide answers to quires of a _____
a) Geographical nature b) Geomorphological
c) Botany d) Physics

14) _____is the new emerging field and grows at vary rapid pace
a) GPS b) R.S. c) GIS d) All of above

Q.2 Define topology? Describe types of topology. **14**

Q.3 Explain types of projection. **14**

Q.4 Define GIS? Advantages of GIS. **14**

Q.5 **Write short notes on:** **14**
1) History of GIS
2) Raster data model

Q.6 **Write in brief on:** **14**
1) UTM
2) DBMS

Q.7 **Write small account on:** **14**
1) Vector Data Structure
2) GPS

SLR-RM-557

Seat No.	

M.Sc. Geoinformatics (Semester-II) New (CBCS) Examination, 2017
Digital Image Processing

Day & Date: Monday, 24-04-2017 Max. Marks: 70

Time: 10.30 AM to 01.00 PM

***Instructions : : 1) Answer** any **Five** Questions.*
2)** All Questions **carry** equal **marks.
3)** Question **No.1** is **Compulsory.
4)** Attempt **any two** from Q. NO.**2,3** and **4
*5) Attempt **any two** from Q.NO.**5, 6** and **7**.*

Q.1 A Fill in the blanks: **14**

1) Following error are not belongs to the radiometric error.
   A) Atmospheric error B) Missing scan line
   C) Contrast stretching D) Random noise error

2) Atmospheric path radiance introduce …….. in the image whereby decreases the contrast of the data.
   a) Haze b) Null Value c) Darkness d) None of above

3) In …… data file format, pixels in all bands are written together.
   a) DIP b) BSQ c) BIP d) BIL

4) The ……error those geometric errors can predict in advance.
   A) Systematic B) Non-Systematic
   C) Atmospheric D) None of above

5) In …… emphasize the high frequency components and sharpen the edges.
   a) LFF b) HFF c) BIP d) BIL

6) …… errors correspond to non diagonal column elements.
   A) Commission B) Omission
   C) Kappa D) All of the above

7) In Image …….. stage, Image have capabilities to identify and quantity the objects in the image.
   A) Contrast stretch B) Rectification
   C) Enhancement D) Classification

8) Errors in the image Matrix known as …….
   A) RMS error B) Kappa Coefficient
   C) Rectification D) Geometric Error

9) Histogram minimum method is also known as …… technique.
   A) Averaging B) Linear
   C) Dark Pixel subtraction D) Non-Linear

10) In Digital Image, data record in the Digital Number per pixel called as ……..
   A) Brightness Value B) Picture
   C) Numerical Value D) RS Value.

11) ……. 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) Non of above

12) Following error are not belongs to systematic Geometric error.
   A) Earth Rotation B) Satellite Altitude
   C) Panoramic distortion D) Spacecraft Velocity

13) …….. is a widely used decision rule based on simple Boolean "and/or" logic.
   A) Maximum Likelihood Classifier
   B) Parallelepiped Classifier Algorithm
   C) Minimum Distance to Means Classifier
   D) None of these

14) NDVI, RVI and TVI is one of the Image enhancement methods called as……
   A) Spatial Filtering B) Contrast Stretching
   C) Band Radioing D) Edge Enhancement

Q2 Discuss the importance of image Enhancement? Explain the image enhancement methods in short **14**

Q3 What are radiometric errors? Explain the atmospheric errors and errors removal process?

Q4 What is contrast stretch? Apply linear contrast stretching method and rearrange the DN value of the following image. **14**

80	15	25	65
35	20	30	45
70	20	30	45
40	60	50	35

Q5 **Write Short Note on** **14**
   a) Errors Matrix
   b) Band Combination

Q6 **Write in brief on** **14**
   a) Satellite Attitude and Altitude
   b) Histogram Equalization

Q7 **Write small accounts on** **14**
   a) BSQ
   b) Systematic Errors

SLR-RM – 567

Seat No.	

Geoinformatics (Semester – III) (New) (CBCS) Examination, 2017
SPATIAL ANALYSIS

Day & Date: Tuesday, 18-04-2017 Max. Marks: 70

Time: 02.30 PM to 05.00 PM

N.B. : *1) Answer any **five** questions.*
*2) All questions carry **equal** marks.*
*3) Question **1** is **compulsory** and should answered in the question papers*
*4) Answer **any two** essay questions from **2**, **3** & **4***
*5) Answer **any two** short note question from **5**, **6** & **7***
*6) Draw **neat** & **labeled diagrams** whenever necessary.*

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

1) Intersection operation can be done with the help of _____ Boolean operation.
   a) AND b) OR c) NOT d) XOR

2) ____ is following method used for evaluation point pattern.
   a) Alpha b) Gamma c) NNI d) NI

3) The first order connectivity matrix defined as the ____, is based on the direct connection between nodes.
   a) C_1 matrices b) C_2 matrices
   c) C_3 matrices d) None of these

4) _____ are polylines that connect points of equal value, such as elevation, temperature, precipitation pollution or atmospheric pressure.
   a) Nodes b) Contours c) Polygon d) None of these

5) The raster data model performs _____ operations more efficiently than the vector model.
   a) Boolean b) Fuzzy c) Statistical d) Overlay

6) _____ is a multi-layer function that analyzes visibility based on terrain.
   a) Slope b) Viewshed c) Aspect d) Contour

7) To eliminate unwanted boundaries between map features after join operation is called _____
   a) Merge b) Dissolve c) Buffer d) Georefrancing

8) _____ refers to the correlation of a time series with its own past and future values.
   a) Geocoading b) Autocorrelation
   c) IDW d) Krigging

9) _____ is defined by a plane tangent to a topographic surface.
   a) Aspect b) Slope c) Shadow d) Hillshade

10) _____ means every feature in every layer is incorporated into output coverage.
   a) Identity b) Union
   c) Intersection d) None of these

11) Maximum number of link required for complete one circuit _____
   a) 2 b) 3 c) 4 d) 5

12) _____ requires the processing of attribute data exclusive of spatial information.
   a) Spatial query b) Attribute query
   c) GPS query d) Surface query

13) _____ involves the processing of spatial data in a special regularly spaced form
   a) Grid Analysis b) Surface Analysis
   c) Print Pattern Analysis d) None of these

14) Surface analysis deals with spatial distribution of surface information in terms of _____ structure.
   a) Three dimentional b) Surface
   c) Two dimentional d) None of the above

Q.2 Describe grid based operations. **14**

Q.3 What is mean by surface analysis? Explain the detail of DEM. **14**

Q.4 Describe types of spatial models. **14**

Q.5 **Write short note on:** **14**
1) Overlay Operation
2) Zonal & Global Operations

Q.6 **Write in brief on:** **14**
1) NNI
2) C matrices

Q.7 **Write small account on:** **14**
1) IDW
2) Clip and Intersect

SLR-RM – 568

Seat No.	

M.Sc.(Geoinformatics)(Semester – III)(New) (CBCS) Examination, 2017
ADVANCED TECHNIQUES IN REMOTE SERVISING

Day & Date: Thursday, 20-04-2017 Max. Marks: 70

Time: 02.30 PM to 05.00 PM

N.B. : *1) Answer any **five** questions.*
*2) All questions carry **equal** marks.*
*3) Question **1** is **compulsory** and should answered in the question papers*
*4) Answer **any two** essay questions from **2**, **3** & **4***
*5) Answer **any two** short note question from **5**, **6** & **7***
*6) Draw **neat** & **labeled diagrams** whenever necessary.*

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

1) Identity the wave length range of microwave partion of the spectrum.
   a) 1 mm to 1m b) 2.5 mm to 4 m
   c) 5 mm to 7 m d) None of these

2) RADAR was first investigated by
   a) C.V. Raman 1904 b) Taylor and young 1922
   c) Homi Baba 1964 d) Vikram Sarabai (1972)

3) The aircraft travel in a straight line that is termed as ____.
   a) Azimuth flight b) Horizontal flight
   c) Vertical flight d) None

4) Passive remote sensing record _____ energy that is reflected or emitted from the earth surface.
   a) Solar b) Kinetic c) Passive d) electromagnetic

5) Identity the instrumental method to measure the surface wind speed and direction of the ocean surface using space borne platform.
   a) Radiometer b) Scattrometer c) Thermometer d) Micrometer

6) A two or three dimensional graph in which observations made in different bands are plotted against each other to called ____.
   a) Histrogram b) Pie diagram
   c) Feature space plot d) Scatter plot

7) An aerial photograph may be assumed as _____ projection.
   a) Parallel b) Orthogonal c) Central d) Polyconic
8) IRS-P5 was launched on

a) May 5th , 2005 b) October 17th 2003
c) May 26th , 1999 d) None

9) Which of the following country has launched RADARSAT?
a) U.S.A. b) India c) Japan d) CANADA

10) ____ contains elevation information about all features in the landscape.
a) DTM b) DEM c) TIN d) DSM

11) SAR stands for _____.
a) Signal aperture radar b) Synthetic aperture radar
c) Sound aperture radar d) None

12) The energy of particles of molecular matter in random motion is called ____.
a) Kinetic heat b) Emissivity
c) Black body d) None

13) _____ is a technique that is useful for the compression and classification of data.
a) PCA b) IHS c) Supervised d) Unsupervised

14) All object like vegetation, soil, rock, water and people emit thermal electromagnetic radiation in the _____.
a) 0.3 μm to 14 μm b) 0.1 μm to 0.4 μm
c) 0.4 μm to 0.7 μm d) None

Q.2 Discuss in detail microwave remote sensing and throw light on its applications. **14**

Q.3 Enumerate the salient aspects of thermal infrared and its radiation properties. **14**

Q.4 Describe in detail color transformation and image fusion techniques related to digital processing. **14**

Q.5 **Write short note on:** **14**
1) Active and passive remote sensing
2) Radar operating principles.

Q.6 **Write in brief on:** **14**
1) Relief displacement
2) SEASAT

Q.7 **Write small account on:** **14**
1) Principle component analysis
2) Atmospheric transmission

Seat No.	

Geoinformatics (Sem – III) (New) (CBCS) Examination, 2017
ADVANCED TECHNIQUES IN GIS.

Day & Date: Saturday, 22-04-2017 Max. Marks: 70

Time:02:30 PM to 05.00 PM

N.B. : *1) **Answer** any **Five** Questions*
*2) All Questions **carry** equal **marks***
*3) Question **No. 1** is **Compulsory***
*4) **Answer** any two essay **question** from **2,3,4***
*5) **Answer** any two short note **question** from **5, 6, 7.***
*6) Draw neat & lasted **diagrams** wherever **necessary.***

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

1) Displaying static maps which used can pan or zoom white online is an important application of _____.
   a) Wed GTS b) Enterprise Resource planning
   c) Interpolation d) Spatial data mining

2) Extracting of interesting pattern or knowledge from huge amount of data is known as_____
   a) Data generation b) Data mining
   c) Data processing d) Data marketing

3) Thiessen polygons is a _____ method of interpolation
   a) Global b) Inaccurate c) Local d) none

4) _____ is a particular type of local interpolation using more unvanced geastatistical techniques.
   a) Extraction b) Overlay
   c) Krigging d) None

5) GML represents _____ information in the form of text.
   a) mathematical b) Geological
   c) Geomorphological d) Geographic

6) _____ is not a type of geodatabase
   a) Spline b) Lile geo c) Personal d) Arc SDE

7) Commercial web mapping application such as_____.
   a) Yahoo map b) Bing map
   c) Google map d) All of the above

8) Artificial neural Network developed based on _____.
   a) Biological b) Social
   c) Culture d) Political

9) ERP stands for _____.
   a) Enterprise reserve process b) Enquire related process
   c) Entertrct reciving process d) Enterprise resource playing

10) The data derived from any _____ method is only as estimate of what the real values should be at a particular location.
   a) Arc swath b) Geoprocessing c) Interpolation d) none

11) ESRI stands for
   a) Environmental Service Research institute.
   b) Entertain Save Record institute.
   c) Environmental Source Research Institute.
   d) None

12) TIN stands for_____
   a) Trangle investigation Network b) Terrain Internet Network
   c) Triangular inverse number d) Triangular Irregular Network

13) A digital elevation model is a digital model or _____ representation of terrains surface.
   a) 2D b) 3D c) 4D d) None

14) AHP stands for_____.
   a) Analytic High parameter b) Analysis High process
   c) Analytic Hammer process d) Analytic Hierarchy process

Q.2 What is Importance of multi-criteria decision analysis in geospatial sciences? **14**

Q.3 Describe Recent trends in GIS? **14**

Q.4 Give an account of Interpolation & git's Explain types? **14**

Q.5 **Write short note on:-** **14**
   a) Personal Geodatabase
   b) IDW

Q.6 **Write a brief in :-** **14**
   a) Spatial clustering
   b) Advantages of DSS

Q.7 **Wire small account on** **14**
   a) ANN
   b) Web GIS

SLR-RM-570

Seat No.	

M.Sc.(Geoinformatics)(Semester – III)(New) (CBCS) Examination, 2017
Introduction to Statistical Methods

Day & Date: Tuesday, 25-04-2017 Max. Marks: 70

Time: 02.30 PM to 05.00 PM

N.B. : *1) Answer any **five** questions.*
*2) All questions carry **equal** marks.*
*3) Question **1** is **compulsory** and should answered in the question papers*
*4) Answer **any two** essay questions from **2**, **3** & **4***
*5) Answer **any two** short note question from **5**, **6** & **7***
*6) Draw **neat** & **labeled diagrams** whenever necessary.*

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

1) The origin of statistics can be traced to _____
   a) State b) Commerce
   c) Economics d) Industry

2) The difference between sample estimate and population parameter in termed as _____
   a) Human error b) Sampling error
   c) Non-sampling error d) None of the above

3) A line graph that plot of the class interval and frequency is known as ____
   a) Histogram b) Frequency polygon
   c) Cumulative frequency d) Relative Distribution

4) A selection procedure of a sample having no involvement of probability is known as _____
   a) Purposive Sampling b) Judgment Sampling
   c) Subjective Sampling d) All of the above

5) Which of the following represents the medium?
   a) First Quartile b) Fiftieth Percentile
   c) Sixth Decile d) Third Quartile

6) The middle value of an ordered series is called _____
   a) 2^{nd} Quartile b) s
   c) 50^{th} percentile d) All of the above

7) The total frequency of all values less than the upper class boundary of a given class interval is called _____

a) Distribution Frequency b) Total Frequency
c) Cumulative Frequency d) None of the above

8) The mean of squared derivation about the mean is called _____
a) Standard derivation b) Variance
c) Mean Derivation d) None of the above

9) For a negatively skewed distribution, the following is true _____
a) Mode < Median b) Mean < Median
c) Mean < Mode d) Mean = Mode

10) Limits for correlation coefficient _____
a) $-1 \leq r \leq 1$ b) $0 \leq r < 1$ c) $-1 \leq r \leq 0$ d) $1 \leq r \leq 2$

11) The mean of 5 numbers is 25. 25 is added to each number then the mean is _____
a) 5 b) 10 c) 8 d) Cannot be determined

12) If the number of observation is odd than the median is the value in the position.
a) $\frac{N+1}{2}$ b) $\frac{N}{2}$ c) $\frac{N}{2}+1$ d) $\frac{2N+1}{2}$

13) In a ____ distribution most of the observation cluster near the mean and it has a sharp peak.
a) Mesokurtic b) Leptokurtic
c) Platykurtic d) Skewkurtic

14) If r = 0 then the cov(x, y) is _____
a) 0 b) – 1 c) 1 d) 0.2

Q.2 What is Sampling? Explain different types, their merits and demerits. **14**
s

Q.3 What are the different types of correlation? Calculate the Karl Pearson's coefficient of correlation from the following rainfall data of different location. **14**

Location (X)	1	2	3	4	5	6	7	8	9
Rainfall (mm)	200	400	1280	300	320	500	800	1200	1000

Q.4 Compute the standard deviation and the upper quartile of the marks, obtained by standards in statistics examination. **14**

Marks	30-39	40-49	50-59	60-69	70-79	80-89	90-100
No. of students	1	2	11	21	43	32	9

Q.5 Write briefly about: **14**
1) Errors
2) Arithmetic Mean

Q.6 Write in brief on: **14**
1) Median
2) Quartiles

Q.7 Write short notes on: **14**
1) Skewness
2) Range

SLR-RM – 572

Seat No.	

M.Sc.(Geoinformatics) (Semester – IV) (Old) (CGPA) Examination, 2017
INFORMATION TECHNOLOGY & MANAGEMENT

Day & Date: Wednesday, 19-04-2017 Max. Marks: 70

Time: 02.30 PM to 05.00 PM

N.B. : *1) Answer **any** Five **questions**.*
*2) **All** question carry **equal** marks**.***
*3) Question **1** is **compulsory**.*
*4) Answer **any two** essay questions from **2, 3, 4**.*
*5) Answer **any two** short note questions from **5, 6, 7**.*
*6) draw **neat** and **labeled** note diagrams wherever **Necessary**.*

Q.1 Fill in the blanks: **14**

1) The process of converting analog signals into digital so they can be processed by a receiving computer is referred to as _____
   a) Modulation b) Demodulation
   c) Synchronizing d) Digitizing

2) The standard protocol for the internet is _____
   a) TCP/IP b) DSL c) OSI d) NOS

3) Which generation of computer is still under development
   a) Fourth Generation b) Second generation
   c) Sixth Generation d) Fifth Generation

4) INTERNIST is _____ tool.
   a) Internet surfing b) Mineral exploration
   c) Medical diagnosis d) Net speed analysis

5) C is a _____ Language.
   a) High Level b) Low Level c) Middle Level d) Machine Level

6) Data by itself is not useful unless.
   a) It is massive
   b) It is processed to obtain information
   c) It is collected from diverse sources
   d) It is properly stated

7) As per the NASSCOM survey of the ten states for 2002-2003, a total budgetary allocation was about_____.
   a) Rs. 3.5 billion b) Rs. 3 Million c) Rs. 3 billion d) Rs.3.5 Million

8) ISP stands for_____.
   a) Internet service provider
   b) Internal service Provider

c) Internet security protection
d) Internet security Program

9) The extensions .gov, .edu and net are called
   a) DNSs
   b) E-mail targets
   c) Domain codes
   d) Mail to addresses

10) “microprocessor” and “Memory” are the important components of
   a) Desktop
   b) System Unit
   c) Input Devices
   d) Output Devices

11) The budgetary support for IT projects of _____ state was highest in 2002-2003
   a) Maharashtra
   b) Kerala
   c) Arunachal Pradesh
   d) Karnataka

12) _____ chips are specifically designed to handle the processing requirements related to displaying and mainpulationg 3-D images.
   a) CISC
   b) Control Unit Processors
   c) Arithmetic- logic Unit Processors
   d) Graphics Coprocessors

13) The World Wide Web (WWW) was introduced in Switzerland.
   a) 1994 b) 1992 c) 2004 d) 2000

14) _____ is a measurement of the capacity of the communication channel.
   a) Bandwidth b) Broadband c) Bytes d) speed

Q.2 What is strategic planning? Explain Goals, objectives and methodologies in strategic planning. **14**

Q.3 What is Information Technology? Describe the impact of Information Technology on Development and E Governance. **14**

Q.4 Explain Information System? Write a detailed note on Information System for knowledge work. **14**

Q5 Write brief account on: **14**
a) types of networking
b) programming Languages

Q.6 Write short note on: **14**
a) TPS
b) E-publishing

Q.7 Enumerate the following: **14**
a) EIS and office automaton
b) IT audit

SLR-RM – 573

Seat No.	

M.Sc. (Geoinformatics) (Semester – IV)(Old) (CGPA) Examination, 2017
Geoinformatics Approach Natural Resource Management

Day & Date: Friday, 21-04-2017 Max. Marks: 70

Time:02:30 PM to 05.00 PM

N.B. : *1) **Answer** any **Five** Questions*
*2) All Questions **carry** equal **marks***
*3) Question **No. 1** is **Compulsory***
*4) **Answer** any two essay **question** from **2,3,4***
*5) **Answer** any two short note **question** from **5,6,7.***
*6) Draw neat & lasted **diagrams** wherever **necessary.***

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

1) Geostationary satellites are ideal for_____
   a) Land mapping b) Meteorology
   c) Communication d) None of these

2) Which of the following is user friendly software for image processing _____
   a) ERADAS IMAGINE b) ILWIS
   c) WEKA d) GEOMEDIA

3) Arc GIS native file formal is _____
   a) .dwg b) .shp c) .coverage d) .tiger

4) The SPOT satellites are sun synchronous satellite orbits at height
   a) 832 km b) 900 km c) 850 km d) 890 km

5) _____ is the high resolution imagine satellite.
   a) EO-1 b) IKONOS
   c) World View-2 d) Quick bird

6) Full form of TIN is _____
   a) Triangulated Irregular Net b) Triangulated Irregular Network
   c) Triple Irregular Network d) None of the above

7) Temporal resolution of IRS-LISS-II P6 satellite is _____
   a) 20 day b) 24 day c) 27 day d) 35 day

8) IRNSS stands for_____
   a) Indian Research Navigation Space System
   b) Indian Regional Negative space System
   c) Indian Regional Navigation Satellite System
   d) None of these

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

10) _____ is the direction that a slope faces.
a) Aspect b) Slope c) Shadow d) Hillshade

11) _____ is a process of using points with known values to estimate values at other points.
a) Interpolation b) Distribution
c) Fractual d) None of these

12) _____ approximates the surface with a series of non overlapping triangles.
a) DEM b) TIN c) DTM d) None of these

13) _____ band is useful measurement of urban heat.
a) Visible b) Microwave c) Thermal d) Infrared

14) _____ is following satellite series concerned with Japan
a) IRS b) Spot c) Thermal d) infrared

Q.2 Explain the details application of R.S and G.I.S. in forest with one case study. **14**

Q.3 Wow landsat data is useful for wildlife habit suitability analysis studies? Give one case study. **14**

Q.4 Which satellite data useful for SST mapping and explain with the help of case study. **14**

Q.5 Write short note on:- **14**
a) Ocean colour mapping
b) Ground water zone mapping

Q.6 Write a brief in :- **14**
a) Soil types
b) Marine ecology

Q.7 Wire small account on:- **14**
a) Watershed management
b) Potential fishing zone

Seat No.	

M.Sc. (Geoinformatics)(Semester – IV)(Old) (CGPA) Examination, 2017
APPLICATIONS OF REMOTE SENSING & GIS

Day & Date: Monday, 24-04-2017 Max. Marks: 70

Time:02:30 PM to 05.00 PM

N.B. : *1) **Answer** any **Five** Questions.*
*2) All Questions **carry** equal **marks.***
*3) Question **No. 1** is **Compulsory.***
*4) **Answer** any two essay **question** from **2,3,4.***
*5) **Answer** any two short note **question** from **5,6,7.***
*6) Draw neat & lasted **diagrams** wherever **necessary.***

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

1) Water indicate _____ color in FCC.
a) Black b) Blue c) Both A & B d) None of the above

2) NDWI means_____
a) Normalized Differential Wetland index
b) Normalized Differential Wastewater index
c) Normalized Differential Water index
d) normalized Differential Weather index

3) Find the odd one _____.
a) Tone b) Pattern c) Texture d) Tenacity

4) Plantation shows _____ Texture.
a) Rough b) Both A & B c) Smooth d) None of the above

5) Large scale map is known as _____
a) Atlas map b) Cadastral map
c) Base map d) None of the above

6) _____ geomorphic feature is NOT possible to identify in the satellite image.
a) Major folds b) Minor folds c) Lineaments d) Mountain regimes

7) _____ can be monitored or predicated through Remote Sensing.
a) Landslide b) Earthquake
c) Rainfall d) Tsunami

8) _____ is the Spatial resolution of pan band of landsat-7.
a) 30m b) 23-5m c) 17m d) 15m

9) _____ sensor will help in the detection of surface of surface temperature
a) Microwave b) Visible range c) None d) Thermal IR

10)_____ file format can read by Google Earth.
a) .kml b) .dwg c) .shp d) .gem

11) CAPE means _____
a) Crop Average and Production Estimation
b) Crop Acceleration and Production Estimation
c) Crop Acerage and Production Estimation
d) All of the above

12)_____ is the best resolution to understand the exact shape of the feature.
a) Spatial b) Temporal c) Spectral d) Rediometric

13)_____ is the basic requirement for drainage pattern extraction.
a) OCM b) DEM c) Both A and B d) DSM

14)_____ region of the visible band is best suited for Crop Discrimination.
a) Green b) Blue c) Red d) Yellow

Q.2 Applicable of RS and GIS Geomorphology. **14**

Q.3 Write a case study related to Geosciences. **14**

Q.4 Mapping and analysis for Landslide and Tsunami hazard **14**

Q.5 **Explain the following:** **14**
a) Spectral characters of crop
b) Basin Analysis

Q.6 **Explain the following:** **14**
a) In-site Reflectance
b) Urban Land use classification

Q.7 **Explain the following** **14**
a) Natural and Manmade disasters
b) Crop water management

SLR-RM – 575

Seat No.	

M.Sc.(Geoinformatics) (Semester – IV)(New) (CBCS) Examination, 2017
GEOINFORMATICS APPROACH FOR NATURAL RESOURCE MANAGEMENT

Day & Date: Wednesday, 19-04-2017 Max. Marks: 70

Time:02:30 PM to 05.00 PM

N.B. : *1) Answer any Five Questions*
2) All Questions carry equal marks
3) Question No. 1 is Compulsory
4) Attempt any two from Q.NO.2, 3,and 4
5) Attempt any two from Q. NO.5,6 and 7

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

1) Which of the following remote sensing data is used for the generation of river network?
   a) DEM b) Landsat c) SAR d) None of the above

2) Basically base map is prepared using_____
   a) Toposheet b) Thematic Maps
   c) Weather Maps d) None of the above

3) Which of the following satellite launched by NASA for soil moisture measurement
   a) SMAP b) ASTER c) LANDSAT d) None of these

4) What is metadata?
   a) It is 'data about data' b) It is 'metrological' data
   c) It is 'Oceanic' data d) It is 'Contour' data

5) A structurally distinct geographical space, which is kilometers wide is called a
   a) Ocean surface b) Landscape
   c) Salty land d) None of the above

6) Which one of basic characteristics of landscape that affects on their diversity.
   a) Structure b) Base c) Elements d) None of the above

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

8) The instrument which measure bidirectional reflectance is called
   a) Barometer b) Goniometer
   c) Hygrometer d) None of the above

9) If high spectral and radiometric resolution sensors are available, it may be possible to differentiate between _____
   a) Plants and animal species b) Soils with soil texture
   c) Both d) None of these

10) Smaller the local surface roughness relative to the size of the incident radiation greater the
   a) Incident radiation b) Specular spectral reflectance
   c) Transmission of radiation d) None of the above

11) The total reflectance leaving the soil is a function of the specular reflectance and the
   a) Interstitial spaces b) Internal volume reflectance
   c) Ratio d) None of these

12) Mapmakers use GIS to
   a) Store geographic information
   b) View geographic information
   c) Use geographic information
   d) Store, use, View geographic information

13) If the surface soil salt concentration increases generally reflectance also
   a) Decreases b) Increases
   c) Neither increases nor decreases d) None of these

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

Q.2 Explain in details morphometric analysis? **14**

Q.3 Describe Hydrological cycle. Explain briefly humankind's interference in various part of this cycle. **14**

Q.4 Enumerate the uses of Remote Sensing in soil resources mapping. **14**

Q.5 Write a short note on: **14**
   a) Use of remote sensing for identification of potential fish zone
   b) Role of Spatial resolution in forest measuring

Q.6 Write a brief with suitable illustration on the following **14**
   a) Brief about the role of RS and GIS in wild life studies
   b) Concept of Water resources

Q.7 Write an account on: **14**

a) Landscape ecology
b) Coastal Bathymetry

Seat No.	

M.Sc. Geoinformatics (Semester – IV) (New CBCS) Examination, 2017
APPLICATION OF REMOTE SENSING AND G I S IN DISASTER MANAGEMENT

Day & Date: Friday, 21-04-2017 Max. Marks: 70

Time: 02.30 PM to 05.00 PM

N.B. : *1) Answer **any five** questions.*
*2) **All** questions **carry** equal marks*
*3) **Q. no. 1** is **compulsory**.*
*4) **Attempt** any two from **Q. no. 2, 3** and **4.***
*5) **Attempt** any two from **Q. no. 5, 6** and **7.***
6) Draw **neat** sketches wherever **necessary**.

Q.1 A) Fill in blanks with appropriate. **14**

1) Most earthquake prone area in India.
a) Mumbai b) Manipur c) Ahmadabad Guwahati

2) Drought is brought when the water reserves available in sources such as aquifers, lakes and reservoirs fall below the statistical average.
a) Hydrological Drought b) Metrological Drought
c) Agriculture Drought d) All of the above

3) Dust blow will occur due to
a) Tsunami b) Drought conditions
c) Volcanic activity d) Earthquake

4) Zone 5 is the Zone with ____of earthquake effect
a) Lowest Risk b) Medium Risk
c) Highest Risk d) None of the above

5) Temporal satellite data will help in identification of _____changes.
a) Population rise b) Tsunami effect
c) Sea level change d) All of the above

6) To understand the nuclear disaster _____resolution of satellite data will be helpful.
a) Temporal b) Spatial
c) Both a and b d) Radiometric

7) Uttara khand Flash Flood took in the year.
a) 2015 b) 2013 c) 2014 d) 2012

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 a and b

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) Decreases in aquatic life

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

Q.3 Explain the effects, measurement and causes responsible for Earthquake. **14**

Q.4 Write a note on marine disasters. **14**

Q.5 Explain the following. **14**
1) Drought prone zones in India.
2) Oil spill and chemical precipitation.

Q.6 Write in brief on: **14**
1) Major disasters in India.
2) Type of Hazards

Q.7 Write a note on: **14**
1) Over utilization of water and land resources.
2) Ozone layer depletion with case study.

SLR-RM-577

Seat No.	

M.Sc. Geoinformatics (Semester-IV) New (CBCS) Examination, 2017
INFORMATION TECHNOLOGY AND MANAGEMENT

Day & Date: Monday, 24-04-2017 Max. Marks: 70

Time: 02.30 PM to 05.00 PM

N:B: *1)* ***Answer*** *any* ***five*** *questions.*
2) All Questions ***carry*** *equal* ***marks***
3) Question ***NO. 1*** *is* ***Compulsory***
4) Attempt any two from ***Q.No.2, 3*** *and* ***4***
5) Attempt any two from ***Q. No. 5****,* ***6*** *and* ***7***

Q.1 A) Select the answer among the following **14**

1) ANSI stands for ……..
   a) American national standard instruction codes
   b) American national standard institute.
   c) Asian national instruction codes.
   d) Asian national standard instruction codes.

2) ……. numbering system can the binary number 1011011111000101 be easily converted to?
   a) Decimal system b) Hexadecimal system
   c) Octal System d) No need to convert

3) Decision makers who are concerned with technical problems and decision making are……
   a) Middle managers b) Executive Managers
   c) Supervisors d) Mobile managers

4) An information system that supports the planning and assessment needs of executive management is ……..
   a) DSS b) TPS c) ERP d) None of theses

5) The file extension…… is VB Net represents a web from
   a) .asp b) .aspx c) .aspx d) .asax

6) The function of operating system includes…….
   a) Managing resources b) Providing user interface
   c) Running applications d) All of the above.

7) How will you print \n on the screen?
   a) Printf(“\n”) b) Echo “\\n”
   c) Printf (“\n”) d) Printf(“\\n”')

8) A……. performs invisible tasks even if u write on code.
   a) Destructor b) Private method
   c) Constructor d) Function

9) WMV stands for……
   a) Window media vide b) Write media video
   c) Write many video d) Write media visual

10) What is full from of TCP?
   a) Transmission control protocol
   b) Transfer control protocol.
   c) Transmission control protocol.
   d) Transmission control process.

11) ……. of the following keywords are used to control access to a class member?
   a) Protected b) Witch c) Goto d) For

12) How would you round off a value from 1.66 to 2.0?
   a) Ceil(1.66) b) Floor (1.66)
   c) Roundup(1.66) d) Roundto(1.66)

13) ……. Of the following concepts means determining at runtime what method to invoke?
   a) Data hiding b) Dynamic Typing
   c) Dynamic binding d) Dynamic loading

14) …….. of the following is an abstract data type?
   a) Int b) Double c) String d) Class

Q2 Write different kinds of information technology on society? **14**

Q3 Explain the E-governance? and discuss about the trade of E-Commerce? **14**

Q4 Define DSS and explain the benefits of DSS and their impact of the decision making processes? **14**

Q5 **Write a short note on:** **14**
a) e-governance
b) Advantages of IT

Q6 **Write a brief on** **14**
a) Programming languages
b) Information system

Q7 Write an account on: **14**
a) Advantages and disadvantages of haking
b) EIS