2017

GEOGRAPHY

PAPER : GGY 302

REMOTE SENSING AND GEOGRAPHIC INFORMATION SYSTEM

FULL MARKS:80 Time :3 hours

{ The figures in the margin indicate full marks for the question.}

1. Multiple choice questions (Answer all) 1x10=10

i) Altitude of Polar orbiting satellite is.....

(a) 1-10 Km (b) 240-450Km

(c) 500-1,000Km (d) >32,000Km

ii) GLONASS is from .....

(a) Japan (b) India

(c) USA (d) Russia

iii) Which of the following has shortest wave length

(a) Microwave (b) Radiowave

(c) X-Rays (d) Infrared

iv) Mie Scattering

(a) Wavelength >Particle size (b) Wavelength <Particle size

(c) Wavelength =Particle size (d) Wavelength >=Particle size

v) The revolution time of a GPS satellite is .....

(a) 6 Hours, 58 minute (b) 11 Hours, 58 minute

(c) 18 Hours, 58 minute (d) 24 Hours, 58 minute

vi) UTM Grid System has ..... zones along its longitude.

(a) 60 (b) 80

(c) 84 (d) 90

vii) Which is the lowest spatial resolution data

(a) 23.5m (b) 28m

(c) 5.8m (d) 56m

viii)Which is not the component of GIS?

(a) Software (b) Hardware

(c) Data (d) Airplane

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ix) Global Positioning System has .....

(a) 4 equal spaced orbital Planes (b) 6 equal spaced orbital Planes
(c) 8 equal spaced orbital Planes (d) 10 equal spaced orbital Planes

x) Which is not a systematic Geometric Error

(a) Scan skew (b) Earth's curvature
(c) Earth's rotation (d) Platform altitude

2. Answer in brief (any four) 2x4=8

i) What is image classification?
ii)Differentiate between quad tree and cell by cell encoding?
iii)What is atmospheric window?
iv)Define Datum?
v)Distinguish between spatial and non spatial data.
vi)What is Topology?

3. Answer in brief (any four) 5x4=20

i)Explain key elements of image interpretation.
ii)What is resolution explain its types.
iii)What are the major regions of the electromagnetic spectrum? Explain in short with suitable diagrams.
iv) Explain Universal transverse Mercator grid system with suitable diagram.
v)What is Scattering? Explain types of scattering.
vi) Give different types of satellite orbits and its significance.

4. Answer in detail (any Two) 9x2=18

i)Write about Indian remote sensing and space technology.
ii)What is Geometric error? Explain its types with suitable dia grams.
iii) Explain different vector data analysis techniques and its application in environmental planning and related domain.
iv)What is Trilateration? Explain its fundamental principle and application with suitable diagrams.

5. Answer in detail (any Two) 12x2=24

i) What is Remote Sensing? Explain its principle.
ii) Explain different components of Geographic Information System and its application.

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iii) Illustrate the applicability of Remote Sensing in Environmental management and decision making.
iv) What is platform in Remote Sensing? Explain different types of platform and its application.

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