

IV/IV B.Tech DEGREE EXAMINATION
First Semester
Geo-Informatics Engineering
DIGITAL IMAGE PROCESSING-II
(Effective from the admitted batch 2019-20)

Time: 3 hours

Maximum: 70 marks

Question 1 is compulsory.

Answer any FOUR from remaining questions.

Answer the parts of any question at one place.

All Questions carry equal marks.

i) ANSWER THE FOLLOWING

- a) What are image indices used in multispectral transformation?
 - b) What is the concept of spatial frequency?
 - c) Write short note on other supervised classifications
 - d) What is the sampling theory?
 - e) Write short note on fourier transform
 - f) What are regularized covariance estimators?
 - g) Explain Blockbased maximum likelihood classification.
2. a) What are the applications of principle component analysis?
b) How is the linear discrimination used in non-parametric classification?
 3. a) What are the special functions used in fourier transformation?
b) What are the data characteristics of hyperspectral data?
 4. a) Explain Noise adjusted Principle component transformation
b) What is probabilistic label relaxation in context classification?
 5. a) How to delineate spectral classes using similarity metrics and clustering criteria?
b) Explain in detail neural network approach.
 6. a) Explain the development of the fast fourier transform algorithm.
b) Explain Kauth-Thomas Tasseled cap transformation.
 7. a) How are the minimum distance and parallelepiped classifiers used in supervised classification?
b) What is the Hyperspectral feature reduction?
 8. a) How the iterative optimization clustering algorithm used in unsupervised classification?
b) What are the Data calibration techniques used in Hyperspectral interpretation?

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P. Manoj
29/8/22

B.Tech. IV/IV 1st sem 27-09-2022.

2019-20 AB

4101

IV/IV B.Tech DEGREE EXAMINATION
First Semester
Geo-Informatics Engineering
DIGITAL PHOTOGRAMMETRY
(Effective from the admitted batch 2019-2020)

Time: 3 hours

Maximum: 70 marks

Question 1 is compulsory.
Answer any FOUR from remaining questions.
Answer the parts of any question at one place.
All Questions carry equal marks.

1) Answer the following

- a) Define a Stereo Model.
 - b) What is the difference between analytical and digital Photogrammetry?
 - c) What is Epipolar Geometry?
 - d) Differentiate between DEM and DTM?
 - e) What is Check point?
 - f) What is Aerotriangulation?
 - g) What is Bundled Block Adjustment?
- 2) a) Describe Analytical Interior Orientation and RO.
b) Define Exterior Orientation. Explain about Degree of Freedom.
 - 3) a) Describe Collinearity and Co-planarity condition in Analytical Photogrammetry.
b) Explain the following Interior Orientation parameters:
 - i. Principle Point and Focal Length
 - ii. Fiducial Marks
 - iii. Lens Distortion
 - 4) a) Explain Principle of Digital Photogrammetry.
b) Describe Software and Hardware components of Digital Photogrammetry.
 - 5) a) Describe Coordinate Systems used in Digital Photogrammetry.
b) Explain about ground control for Aerotriangulation.
 - 6) a) Explain about Block Triangulation and steps involved in it.
b) Explain Triangulation with Satellite Imagery.
 - 7) a) Describe Bundle Adjustment by GPS control.
b) Explain Horizontal and Vertical Controls.
 - 8) a) Explain the phases of DEM Generation.
b) Explain Vertical and Horizontal accuracy requirements of DEM.

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Received

27/09/2022
Legal Section

Model Question paper

Andhra University College of Engineering
IV/IV B.Tech (Geoinformatics Engineering) Degree Examinations
First semester

GI 4106 Elective -III: Geo informatics for Coastal Zone Management

Duration: 3hrs

(Effective from A.B of 2019-2020)

Max.Marks:70

Question No.1 is compulsory

Answer any FOUR questions from the remaining.

All questions carry equal marks

Answer all parts of any question at one place

1. Answer the following in brief: 7X2=14
 - a) Rip current
 - b) Submarine canyon
 - c) Exclusive Economic zone
 - d) Valentin's dual classification
 - e) Coastal Vegetation
 - f) Sea-freshwater interface
 - g) Intertidal zone
2.
 - a. Explain the shore line process and the resultant landforms with neat sketches
 - b. What are the different types of river deltas and the controlling process?
3.
 - a. Discuss the significance of coastal wetlands in coastal stability
 - b. Write about effects of sea level oscillation on coastal zones
4.
 - a. Explain the origin of storm surges and its impact on coastal area
 - b. Explain how Tsunamis impact varies with coastal topography with neat sketches
5.
 - a. Explain the role of Geoinformatics for coastal hazard assessment
 - b. Discuss various steps in coastal hazard preparedness
6.
 - a. Explain the various human activities and their impact on coastal environment
 - b. Discuss the geomorphic features along the various segments of Indian coasts
7.
 - a. Explain the concepts and methods of Coastal Zone Management in India
 - b. Given an account for Remote sensing application in Coastal zone studies with examples
8.
 - a. Explain the subdivisions of the continental margin and illustrate them with neat sketches.
 - b. Discus the Law of the seas and the rights and responsibilities of coastal nations

MODEL PAPER

IV/IV B.Tech DEGREE EXAMINATION

First Semester

Geo Information Engineering

[GI4103] SPATIAL DATA MINING NEURAL NETWORK

(With effective from the admitted batch of (2019-2020))

Time: 3 hours

maximum: 70marks

First question is compulsory

Answer any FOUR from the remaining questions

All questions carry equal marks

Answer

1. *Answer* the following
 - (a) Explain the advantages of Data Mining
 - (b) Define Translational database
 - (c) Give a note on Classification
 - (d) K-nearest neighborhood classifiers
 - (e) What is Geo spatial data mining?
 - (f) Explain advantages of Neural Networks
 - (g) Write a note on Genetic Algorithms
2. (a) Describe the functionalities of data Mining and with the help of an example situation.
(b) Explain briefly about major issue of data mining.
3. (a) Draw and explain the architecture of Data Mining system.
(b) Explain about Bayesian classification and decision tree induction method in detail.
4. (a) Explain the classification based on concepts from Association rule mining.
(b) Explain the types of data in cluster analysis and major cluster methods.
5. (a) Describe Data Mining for automated GIS data collection.
(b) Discuss about Geo spatial data mining techniques for market intelligence.
6. (a) What are the application of Neural Network? Discuss recurrent networks in detail.
(b) Explain the significance of back propagation algorithm & demonstrate it with an example.
7. (a) What is the purpose of Multiplayer network?
(b) Explain about Neural Network based land transformation model in detail.
8. (a) Describe about Artificial Neural Network.
(b) Explain GIS in natural resource applications.

Answered by Anveela

IV/IV B. Tech Degree Examination
First Semester

Geo-Informatics Engineering
Model Question Paper

Web Programming and Applications (GI4105)
Effective from AB of 2018-2020

Time:3 hours

Maxmarks:70

ANSWER ANY FIVE QUESTIONS
FIRST QUESTION IS COMPULSORY
All Questions Carry Equal Marks

1. a) What is HTML?
b) What is the use of BR tag and HR tag?
c) Define Internet?
d) Discuss about comments in HTML.
e) What are web servers?
f) Explain GET and POST request methods
g) Why JavaScript has been called dynamically typed language?
2. a) Describe different ways that styles can be added to a webpage.
b) Explain in detail about CSS background property with example?
3. a) How to manipulate strings and arrays in PHP? Give examples.
b) Discuss in detail about Open Database Connectivity.
4. a) Discuss about control structures used in Java scripts with examples.
b) How to work with windows and frames using Java scripts?
5. a) Describe about TCP/IP network model.
b) Discuss about how do we validate form data(server side) in MYSQL database.
6. Write short notes on the following:
a) Spatial data dissemination using web GIS.
b) Creating/consuming OGC services.
7. a) Explain the several ways for positioning elements on the web pages.
b) Explain the basic table tags with the different attributes.
8. What is a form? Explain form components with example.

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