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SEAT No. \_\_\_\_\_

SARDAR PATEL UNIVERSITY

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M.Sc. Geoinformatics

SEM – II, March 2019

Spatial Analysis and Modeling

Sub code : PS02CGIN22

DATE: 20<sup>th</sup> March 2019

DAY: Wednesday

TIME: 10:00 AM TO 1:00 PM

TOTAL MARKS: 70

Q. 1 Choose the correct answer.

[08]

- (1) Which method is globally accepted for line for automatic Vectorization?  
(A) Line thinning (C) Both (A) & (B)  
(B) Line following (D) None of above
- (2) Statistical surface contain feature of \_\_\_\_\_ dimension.  
(A) One D (C) Two D  
(B) Three D (D) Four D
- (3) OCR means optical \_\_\_\_\_ reader.  
(A) CAD file (C) Both (A) & (B)  
(B) Character (D) None of above
- (4) DEM = \_\_\_\_\_  
(A) Digital elevation model (C) Digital enlarged model  
(B) Distributed elevation model (D) Distributed enlarged model
- (5) for Thiessen polygon grow Line is \_\_\_\_\_ to connecting each pair of point  
(A) perpendicular (C) Both (A) & (B)  
(B) Parallel (D) None of above
- (6) In gravity model Larger the magnitude ( P ) \_\_\_\_\_ interaction between them.  
(A) > grater (C) = equal  
(B) <lessthan (D) None of above
- (7) To find centroid of irregular polygon \_\_\_\_\_ method is use.  
(A) Gravity (C) Both (A) & (B)  
(B) Trapezoid (D) None of above
- (8) Maps tell us about any object \_\_\_\_\_  
(A) Where is it? (C) Both (A) & (B)  
(B) What is it? (D) None of above

Q.2 Answer the following.(attempt any seven, each two marks)

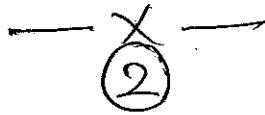
[14]

- (1) Write a short not on problem of saddle point for interpolation.
- (2) What is higher level object in GIS?
- (3) How to choose right tool for rasterisatioin / vectorization process?
- (4) Define location –allocation & list five applications of it.
- (5) Write and explain Reilly's law for retail gravitation model for GIS?
- (6) List and explain any three application of Huff Model for GIS.
- (7) What is conflict resolution in cartography model?
- (8) Compare simple paper cartography & digital cartography.
- (9) Write note on sound analysis and its importance.

(P.T.O.)

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- Q.3 (A) What is TIN model & contours? Explain its principal and its importance for GIS. [06]  
 (B) Write note on cut & fill, & view shade analysis with necessary diagrams. [06]  
**OR**  
 (B) List and explain different ways to classify spatial interpolation procedures with necessary example. [06]
- Q.4 (A) Explain complete rasterization process in detail. [06]  
 (B) Write note on route analysis with list of all possible impedances. [06]  
**OR**  
 (B) Explain complete vectorization process in detail. [06]
- Q.5 (A) Write a note on gravity model for GIS. [06]  
 (B) Explain nearest neighbor hood analysis and spatial data mining. [06]  
**OR**  
 (B) What is cartography overlay for line, point & polygon? [06]
- Q.6 (A) List and classified cartographic model type. [06]  
 (B) Draw and explain mountain cabin selection model flow chart in detail. [06]  
**OR**  
 (B) What is model implementation & verification in GIS cartography? [06]



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