

# CBSE | DEPARTMENT OF SKILL EDUCATION

## GEOSPATIAL TECHNOLOGY (SUBJECT CODE -818)

### Marking Scheme for Sample paper Class XII (Session 2020-2021)

Max. Time: 3 Hours

Max. Marks: 60

#### General Instructions:

1. Please read the instructions carefully.
2. This Question Paper consists of **24 questions** in two sections – Section A & Section B.
3. Section A has Objective type questions whereas Section B contains Subjective type questions.
4. **Out of the given (6 + 18 =) 24 questions, a candidate has to answer (6 + 11 =) 17 questions in the allotted (maximum) time of 3 hours.**
5. All questions of a particular section must be attempted in the correct order.
6. **SECTION A - OBJECTIVE TYPE QUESTIONS (30 MARKS):**
  - i. This section has 06 questions.
  - ii. There is no negative marking.
  - iii. Do as per the instructions given.
  - iv. Marks allotted are mentioned against each question/part.
7. **SECTION B – SUBJECTIVE TYPE QUESTIONS (30 MARKS):**
  - i. This section contains 18 questions.
  - ii. A candidate has to do 11 questions.
  - iii. Do as per the instructions given.
  - iv. Marks allotted are mentioned against each question/part.

## SECTION A: OBJECTIVE TYPE QUESTIONS

<b>Q. 1</b>	<b>Answer any 4 out of the given 6 questions on Employability Skills (1 x 4 = 4 marks)</b>	
i.	Ans .Neo-verbal	1
ii.	Ans Personality	1
iii.	Ans Anxious	1
iv.	Ans Open office Calc	1
v.	Ans Adaptability	1
vi.	Ans Environmental engineers	1

<b>Q. 2</b>	<b>Answer any 5 out of the given 7 questions (1 x 5 = 5 marks)</b>	
i.	Ans .Gamma	1
ii.	Ans Spectral signature	1
iii.	Ans : K Means	1
iv.	Ans. Resampling	1
v.	Ans 1m	1
vi.	Ans -Irregular	1
vii.	Ans Organization	1

<b>Q. 3</b>	<b>Answer any 6 out of the given 7 questions (1 x 6 = 6 marks)</b>	
i.	Ans Spaghetti	1
ii.	Ans Topological	1
iii.	Ans Containment	1
iv.	Ans Digitization	1
v.	Ans : Geo-referencing errors	1
vi.	Ans North	1

<b>vii.</b>	Ans : Galileo	1
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<b>4.</b>	<b>Answer any 5 out of the given 6 questions (1 x 5 = 5 marks)</b>	
<b>i.</b>	Ans Survey	1
<b>ii.</b>	Ans Worse	1
<b>iii.</b>	Ans RGB	1
<b>iv.</b>	Ans Location based services	1
<b>v.</b>	Ans Mobile GIS	1
<b>vi.</b>	Ans Economic data	1

<b>5.</b>	<b>Answer any 5 out of the given 6 questions (1 x 5 = 5 marks)</b>	
<b>i.</b>	Ans Tone	1
<b>ii.</b>	Ans DIAL	1
<b>iii.</b>	Ans Topology	1
<b>iv.</b>	Ans UTM	1
<b>v.</b>	Ans Orbital errors	1
<b>vi.</b>	Ans Enterprise	1

<b>6.</b>	<b>Answer any 5 out of the given 6 questions (1 x 5 = 5 marks)</b>	
<b>i.</b>	Ans Utility	1
<b>ii.</b>	Ans Image analyst should recognize classes in an image based on prior knowledge and assign them class names called training sites.	1
<b>iii.</b>	Ans Everest	1
<b>iv.</b>	Ans Trilateration	1
<b>v.</b>	Ans Give proper idea of height and depth of the objects.	1
<b>vi.</b>	Ans Distress call management, Missile tracking system, border vigilance system etc.	1

## SECTION B: SUBJECTIVE TYPE QUESTIONS

**Answer any 3 out of the given 5 questions on Employability Skills (2 x 3 = 6 marks)**

**Answer each question in 20 – 30 words.**

7.	Declarative, Interrogative, Imperative, Exclamatory	2
8.	<ol style="list-style-type: none"> <li>1. It increases individual's energy and activity.</li> <li>2. It directs an individual towards specific goals.</li> <li>3. It results in initiation and persistence of specific activities</li> </ol> <p>It affects cognitive processes and learning strategies used for completing similar tasks. (Any 2)</p>	2
9.	Title bar, Menu bar, Standard bar, Formatting bar, Formula bar etc.	2
10.	Taking initiative, Seeking, and acting an opportunity, persistence, information seeking, commitment etc. Explain any two.	2
11.	Urban growers, Clean car engineers, Solar cell technician, Wind energy workers etc.	2

**Answer any 3 out of the given 5 questions in 20 – 30 words each (2 x 3 = 6 marks)**

12.	Long wave radiation can penetrate clouds, fog and other weather disturbances. Work during nighttime as well.	2
13.	Depth, Suspended particles, floating vegetation, Sun angle.	2
14.	Join the maps together to get a final seamless map. Explain.	2
15.	Satellite geometry, Multipath, Clock offset, Orbital error. (Explain any two)	2
16.	The universal address system was developed by NAC Geographic product Inc, Represent the entire earth, using latitude, longitude and altitude information of any given place. An 8 character universal address can uniquely specify every building in the world.	2

**Answer any 2 out of the given 3 questions in 30– 50 words each (3 x 2 = 6 marks)**

17.	The distortions in an image due to rotation, curvature, scanner etc. Rectification is done by assigning ground control points. Explain with diagram.	3
18.	Easy to interpret relationship of hidden features. Easy to store, update, interpret and manage. Explain.	3
19.	2 gps receivers are used. A high precision base receiver is placed at a known GCP. This receiver collects gps signals and compares the result to the actual known	3

	coordinates. Explain.	
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**Answer any 3 out of the given 5 questions in 50– 80 words each (4 x 3 = 12 marks)**

20.	Explain all the keys- Tone, shape, size, pattern, texture, shadow and association in detail with examples.	4
21.	Longwave EMR from 0.1 to 30 cm called microwave region. Explain radar or lidar sensor with its functioning, diagram, and examples.	4
22.	Most widely used method to reveal spatial relationships which uses point(nodes), line and polygons to represent all the spatial features and their relationships on earth surface. Explain the features and properties of topological data model.	4
23.	This is the system which helps us in locating our self on earth. It calculates the location by some known reference point. Explain the differences between both. Geographic- 3D reference system, unit of measure is decimal degrees etc. Projected- 2d system. Explain.	4
24.	Explain how Geospatial technology is being widely used worldwide to do risk mapping, zoning of affected and non-affected areas and making people and governments aware and pro-active.	4