

# CBSE | DEPARTMENT OF SKILL EDUCATION

## GEOSPATIAL TECHNOLOGY (SUBJECT CODE -818)

### MARKING SCHEME FOR CLASS XII (SESSION 2022-2023)

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

Q. No.	QUESTION	Source Material (NCERT/PSSCIVE/ CBSE Study Material)	Unit/ Chap. No.	Page no. of source material	Marks
<b>Q. 1</b>	<b>Answer any 4 out of the given 6 questions on Employability Skills (1 x 4 = 4 marks)</b>				
i.	a. Conscientiousness	Combined Book	2	11	1
ii.	c. Standard bar	Combined Book	3	15	1
iii.	Obsessive-compulsive	Combined Book	2	11	1
iv.	a. Employee related difficulties	Combined Book	4	42	1
v.	b. Right Aligned	NCERT Textbook	3	44	1
vi.	Startup	NCERT Textbook	4	88	1
<b>Q. 2</b>	<b>Answer any 5 out of the given 7 questions (1 x 5 = 5 marks)</b>				
i.	Gamma	CBSE Book	1	2	1
ii.	Radiation	CBSE Book	1	6	1
iii.	K Means	CBSE Book	1	29	1
iv.	Resampling	CBSE Book	1	20	1
v.	1m	CBSE Book	1	14	1
vi.	Irregular	CBSE Book	1	50	1
vii.	Organization	CBSE Book	2	58	1
<b>Q. 3</b>	<b>Answer any 6 out of the given 7 questions (1 x 6 = 6 marks)</b>				
i.	Digital	CBSE Book	2	94	1
ii.	Topological	CBSE Book	2	63	1
iii.	Containment	CBSE Book	2	63	1
iv.	Digitization	CBSE Book	2	68	1
v.	Geo-referencing errors	CBSE Book	2	72	1
vi.	North	CBSE Book	3	101	1

vii.	Galileo	CBSE Book	3	113	1
<b>Q. 4</b>	<b>Answer any 5 out of the given 6 questions (1 x 5 = 5 marks)</b>				
i.	Survey	CBSE Book	3	112	1
ii.	Worse	CBSE Book	3	108	1
iii.	RGB	CBSE Book	4	127	1
iv.	Location based services	CBSE Book	4	139	1
v.	Mobile GIS	CBSE Book	4	136	1
vi.	Economic data	CBSE Book	5	148	1
<b>Q. 5</b>	<b>Answer any 5 out of the given 6 questions (1 x 5 = 5 marks)</b>				
i.	Tone	CBSE Book	1	33	1
ii.	DIAL Lidar	CBSE Book	1	46	1
iii.	Topology	CBSE Book	2	63	1
iv.	UTM	CBSE Book	2	88	1
v.	Orbital errors	CBSE Book	1	20	1
vi.	Enterprise	CBSE Book	4	134	1
<b>Q. 6</b>	<b>Answer any 5 out of the given 6 questions (1 x 5 = 5 marks)</b>				
i.	Utility	CBSE Book	5	151	1
ii.	Image analyst should recognize classes in an image based on prior knowledge and assign them class names called training sites.	CBSE Book	1	29	1
iii.	Everest	CBSE Book	2	89	1
iv.	Trilateration	CBSE Book	3	104	1
v.	Give proper idea of height and depth of the objects.	CBSE Book	4	137	1
vi.	Distress call management, Missile tracking system, border vigilance system etc.	CBSE Book	5	151	1

## **SECTION B: SUBJECTIVE TYPE QUESTIONS**

Q. No.	QUESTION	Source Material (NCERT/PSSCIVE/ CBSE Study Material)	Unit/ Chap. No.	Page no. of source material	Marks
<b>Answer any 3 out of the given 5 questions on Employability Skills in 20 – 30 words each (2 x 3 = 6 marks)</b>					
<b>Q. 7</b>	<p><b>Technical entrepreneurs</b> - The Industrial Revolution gave birth to technical entrepreneurs, who use their technical expertise to create and offer machines, tools and methods. They constantly innovate to make industrial processes seamless and efficient. Technical entrepreneurs use their technical knowledge and skills to innovate.</p> <p><b>Non-technical entrepreneurs</b> - These entrepreneurs use their expertise in providing services to create a market for technical entrepreneurs. Their expertise is in non-technical aspects of a product or service, i.e., they are not concerned with the manufacturing process but have more to do with before and after the manufacturing process.</p>	NCERT Textbook	4	83	2
<b>Q. 8</b>	<b>Any Two</b>	NCERT Textbook	2	33-34	2

	<p><b>1. Openness:</b> Individuals with openness to experience are generally, creative, curious, active, flexible and adventurous. If a person is interested in learning new things, meeting new people and making friends, and likes visiting new places, the person can be called open-minded.</p> <p><b>2. Consciousness:</b> Individuals, who listen to their conscience, are self-disciplined, do their work on time, take care of others before themselves and care about others' feelings.</p> <p><b>3. Extraversion:</b> Extroverts are individuals, who love interacting with people around and are, generally, talkative. A person, who can easily make friends and make any gathering lively, is confident and an extrovert.</p> <p><b>4. Agreeableness:</b> Individuals having such a trait are generally, kind, sympathetic, cooperative, warm and considerate. They accommodate themselves in any situation. For example, people who help and take care of others are, generally, agreeable.</p> <p><b>5. Neuroticism:</b> Neuroticism is a trait, wherein, individuals show tendency towards anxiety, self-doubt, depression, shyness and other similar negative feelings. People, who have difficulty in meeting others and worry too much about things, show signs of neuroticism.</p>				
<p><b>Q. 9</b></p>	<p><b>Persistence:</b> An entrepreneur is never disheartened by failures and keeps trying, adapting and iterating to overcome obstacles that come in the way of achieving goals.</p> <p><b>Commitment:</b> Entrepreneurs exhibit high level of commitment towards their work and decisions. For an entrepreneur to succeed, they have to stay committed to their venture and their goal.</p>	<p>Combined Book</p>	<p>4</p>	<p>44-45</p>	<p><b>2</b></p>
<p><b>Q. 10</b></p>	<p><b>Books:</b> Books are said to be best friends. They expand our horizon of thinking. They help us visualize the unknown and uncharted territories beyond our capacities. Books about heroic acts, inspiring lives and stimulating creativity help readers move beyond their routine lives.</p>	<p>Combined Book</p>	<p>2</p>	<p>10</p>	<p><b>2</b></p>

	<b>Music:</b> Music is the language of the soul. A good inspiring piece touches every heart and can help create miracles.				
<b>Q. 11</b>	1. Select <b>Tools</b> menu - <b>Protect document</b> Choose whether to protect 2. If you select <b>Sheet</b> , the <b>Protect Sheet</b> dialog box appears. 3. Type the password in <b>Password text box</b> . Again, type the password in <b>Confirm text box</b> . Note that the password is case sensitive. 4. Click <b>OK</b> button.	Combined Book	3	34	<b>2</b>
<b>Answer any 3 out of the given 5 questions in 20 – 30 words each (2 x 3 = 6 marks)</b>					
<b>Q. 12</b>	Long wave radiation can penetrate clouds, fog and other weather disturbances. Work during nighttime as well.	CBSE Book	1	42	<b>2</b>
<b>Q. 13</b>	Depth, Suspended particles, floating vegetation, Sun angle.	CBSE Book	1	11	<b>2</b>
<b>Q. 14</b>	Raster model divides the entire area into regular grids in a specific sequence.	CBSE Book	2	65	<b>2</b>
<b>Q. 15</b>	Satellite geometry, Multipath, Clock offset, Orbital error. (Explain any two)	CBSE Book	3	106	<b>2</b>
<b>Q. 16</b>	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.	CBSE Book	4	140	<b>2</b>
<b>Answer any 2 out of the given 3 questions in 30– 50 words each (3 x 2 = 6 marks)</b>					
<b>Q. 17</b>	The distortions in an image due to rotation, curvature, scanner etc. Rectification is done by assigning ground control points. Explain with diagram.	CBSE Book	1	20	<b>1.5+1.5</b>
<b>Q. 18</b>	Easy to interpret relationship of hidden features. Easy to store, update, interpret and manage. Explain.	CBSE Book	2	92	<b>3</b>
<b>Q. 19</b>	NAVSTAR, GLONASS and GALILEO	CBSE Book	3	113	<b>3</b>
<b>Answer any 3 out of the given 5 questions in 50– 80 words each (4 x 3 = 12 marks)</b>					
<b>Q. 20</b>	Explain all the keys- Tone, shape, size, pattern, texture, shadow and association in detail with examples.	CBSE Book	<b>1</b>	<b>31</b>	<b>4</b>
<b>Q. 21</b>	Longwave EMR from 0.1 to 30 cm called microwave region. Explain radar or lidar	CBSE Book	1	42	<b>1+3</b>

	sensor with its functioning, diagram, and examples.				
<b>Q. 22</b>	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.	CBSE Book	2	63	<b>4</b>
<b>Q. 23</b>	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 in detail	CBSE Book	2	87	<b>1+3</b>
<b>Q. 24</b>	To be explained in detail how Geospatial technology is being widely used worldwide to do riskmapping, zoning of affected and non-affected areas and making people and governments aware and pro-active.	CBSE Book	5	150	<b>4</b>