CBSE | DEPARTMENT OF SKILL EDUCATION

Geospatial Technology (SUBJECT CODE - 818)

MARKING SCHEME FOR CLASS XII (SESSION 2023-2024)

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
Q. 1	**Answer any 4 out of the given 6 questions on Employability Skills (1 x 4 = 4 marks)**				
i.	A sentence is a group of words, which together expresses a complete idea that has meaning.	Book on Employability Skills	Unit 1	Pg. 16	1
ii.	Openness	Book on Employability Skills	Unit 2	Pg. 33	1
iii.	Ctrl+P	Book on Employability Skills	Unit 3	Pg. 48	1
iv.	A startup is a company that is in the first stage of its operations.	Book on Employability Skills	Unit 4	Pg. 88	1
v.	United Nations Environment Program	Book on Employability Skills	Unit 5	Pg. 112	1
vi.	To select an entire worksheet, click the grey rectangle on the upper left corner of the worksheet.	Book on Employability Skills	Unit-3	Pg. 46	1
Q. 2	**Answer any 5 out of the given 7 questions (1 x 5 = 5 marks)**				
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
Q. 3	**Answer any 6 out of the given 7 questions (1 x 6 = 6 marks)**				
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
Q. 4	**Answer any 5 out of the given 6 questions (1 x 5 = 5 marks)**				
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
Q. 5	**Answer any 5 out of the given 6 questions (1 x 5 = 5 marks)**				
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
Q. 6	**Answer any 5 out of the given 6 questions (1 x 5 = 5 marks)**				
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
Answer any 3 out of the given 5 questions on Employability Skills in 20 – 30 words each (2 x 3 = 6 marks)					
Q. 7	Receiving, Understanding, Remembering, Evaluating,	Book on Employability	Unit 1	Pg. 5	½+½+½+½=2

	Responding		Skills			
Q. 8	**(Any 2 differences each)**		Book on Employability Skills	Unit 2	Pg. 24	½+½+½+½=2
	intrinsic motivation	extrinsic motivation				
	• It may come from within. • It includes activities for which there is no apparent reward but one derives enjoyment and satisfaction in doing them. Incentives related to the motive or goal can satisfy one's needs.	• It is inspired by others or events. • It arises because of incentives or external rewards. • Lack of motivation or incentives may lead to frustration,				
Q. 9	1. Click on Tools and select Protect Spreadsheet 2. A Protect Document dialog box appears. 3. Type in a password. 4. Type the same password in the Confirm textbox. 5. Click on OK		Book on Employability Skills	Unit 3	Pg. 60	2
Q. 10	(Any two points) • Decisiveness is the most important attribute while setting up a business venture. • It is about identifying an opportunity and acting on it. An opportunity is a chance to do something, generally, the right time or moment to do something.		Book on Employability Skills	Unit 4	Pg. 99	1+1=2
Q. 11	(Any 4 benefits) • increase the efficiency of energy and raw material. • reduce greenhouse gas emissions.		Book on Employability Skills	Unit 5	Pg. 114	½+½+½+½=2

	• control waste and pollution. • protect and restore ecosystems. • support adaptation to the effects of climate change.				

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

Q. 12	Long wave radiation can penetrate clouds, fog and other weather disturbances. Work during nighttime as well.	CBSE Book	1	42	2
Q. 13	Depth, Suspended particles, floating vegetation, Sun angle.	CBSE Book	1	11	2
Q. 14	Raster model divides the entire area into regular grids in a specific sequence.	CBSE Book	2	65	2
Q. 15	Satellite geometry, Multipath, Clock offset, Orbital error. (Explain any two)	CBSE Book	3	106	2
Q. 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.	CBSE Book	4	140	2

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

Q. 17	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	1.5+1.5
Q. 18	Easy to interpret relationship of hidden features. Easy to store, update, interpret and manage. Explain.	CBSE Book	2	92	3
Q. 19	NAVSTAR, GLONASS and GALILEO	CBSE Book	3	113	3

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

Q. 20	Explain all the keys- Tone, shape, size, pattern, texture, shadow and association in detail with examples.	CBSE Book	1	31	4
Q. 21	Longwave EMR from 0.1 to 30 cm called microwave region. Explain	CBSE Book	1	42	1+3

	radar or lidar sensor with its functioning, diagram, and examples.				
Q. 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.	CBSE Book	2	63	4
Q. 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 in detail	CBSE Book	2	87	1+3
Q. 24	To be explained in detail 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.	CBSE Book	5	150	4