CBSE – DEPARTMENT OF SKILL EDUCATION

GEOSPATIAL TECHNOLOGY (SUBJECT CODE 818)

MARKING SCHEME OF Sample Question Paper

ClassXII (Session 2019–2020)

Time: 3 Hours   **Max. Marks: 60**

General Instructions:
1. *This Question Paper consists of two parts viz. Part A: Employability Skills and Part B: Subject Skills.*
2. ***Part A: Employability Skills (10 Marks)***
   - i. *Answer any 4 questions out of the given 6 questions of 1 mark each.*
   - ii. *Answer any 3 questions out of the given 5 questions of 2 marks each.*
3. ***Part B: Subject Skills (40 Marks):***
   - i. *Answer any 10 questions out of the given 12 questions of 1 mark each.*
   - ii. *Answer any 5 questions from the given 7 questions of 2 marks each.*
   - iii. *Answer any 5 questions from the given 7 questions of 3 marks each.*
   - iv. *Answer any 3 questions from the given 5 questions of 5 marks each.*
4. ***This question paper contains 42 questions out of which 30 questions are to be answered.***
5. *All questions of a particular part/section must be attempted in the correct order.*
6. *The maximum time allowed is 3 hrs.*

PART A: EMPLOYABILITY SKILLS (10 MARKS)

Answer any 4 questions out of the given 6 questions of 1 mark each:

1.	C. Understanding	**(1)**
2.	Self	**(1)**
3.	Music, Books, Activities, Positive thoughts, living in the present, dreaming big. (Any two)	**(1)**
4.	MS Powerpoint, Openoffice Impress.	**(1)**
5.	Problem solving is the process of thinking, through which entrepreneurs can come up with many solutions to improve their business.	**(1)**
6.	B. Deforestation	**(1)**

Answer any 3 questions out of the given 5 questions of 2 marks each:

7.	Declarative, Interrogative, Exclamatory, Imperative.	**(2)**
8.	Enduring set of traits. These traits are made up of emotional, behavioral and mental set of characteristics. Or any other relevant answer.	**(2)**
9.	1. Easy, fast, accurate calculations 2. Handle large volume of data 3. Easy transfer of data 4. Use of graphs or charts any two.	**(2)**
10.	Values are qualities and principles which make a person think and act in a certain way. Confidence, independence, perseverance, open-mindedness. Any two.	**(1+1=2)**
11.	It offers new tourism paradigm. Tourist buy experience not product. This tourism respect socio-cultural heritage and provide safe working conditions. Any other relevant point.	**(2)**

PART B: SUBJECT SKILLS (50 MARKS)

Answer any 10 questions out of the given 12 questions:

12.	To measure the velocity of a target.	**(1)**
13.	Microwave region.	**(1)**
14.	Location	**(1)**
15.	Legality	**(1)**
16.	Overlay	**(1)**
17.	Point	**(1)**
18.	Locational errors.	**(1)**
19.	1m	**(1)**
20.	Ephemeris or orbital error	**(1)**
21.	Trilateration	**(1)**
22.	Maps, information, software, hardware, procedures, people. Any two.	**(1)**

23.	$S=f/H$	(1)

Answer any 5 questions out of the given 7 questions of 2 marks each:

24.	Relationship of object with surrounding features. Eg.Association of commercial properties with major transportation routes.	(2)
25.	Repetitive cycle of satellites. Helps in getting images frequently.	(2)
26.	Data security, integrity, storage, retrieval and maintenance.	(2)
27.	Appends the features of two or more layers into a single output layer. Attributes will be retained if they have the same name.	(2)
28.	1. Use of relative position of stars and constellations. 2. Use of compass and sextant.	(2)
29.	Panchromatic images are black and white, Multispectral are colored. Single and RGB histograms.	(2)
30.	Topographic map, IRS LISS-III data, Census data.	(2)

Answer any 5 questions out of the given 7 questions of 3 marks each:

31.	Source---- Transmission---- Interaction with atmosphere-----Interaction with surface-----Transmission from surface----- Sensor data output----- Data transmission, processing, analysis.	(3)
32.	Vertical camera axis, less than 3° tilt, used for planning. High and low oblique, helps in identify structural and topographic variation, easy and cost effective.	(3)
33.	Used for identifying areas around geographic features. It shows the impact or possibility zone of accident or disaster which can be used to mark and evacuation process. Any other relevant ans.	(3)
34.	A procedure which transforms the features and locations from a 3D earth to 2D paper in a defined and consistent way. The outcome of the transformation is a systematic construction of lines on a plane surface representing the geographic grid. Types- Cylindrical, Conical, Planer.	(3)

35.	It works by cancelling out most of the natural and manmade errors. Mention its functioning.	(3)
36.	Enhance the quality, increases the productivity, improves accuracy, saves time etc.	(3)
37.	Expansion of mobile technology from the office to the field. 1. Creates, edit, uses GIS maps in the field. 2. Update asset location & condition 3. Legal code compliance etc.	

Answer any 3 questions out of the given 5 questions of 5 marks each:

38.	RADAR is a remote sensing sensor works in microwave range. Explain with diagram. Page no. 43-44, ch.1.	(5)
39.	A process of automatically categorization of all pixels in an image into different land cover classes or themes. 1. Defining training sites 2. Signature analysis 3. Selection of appropriate algorithm 4. Post classification smoothening 5. Accuracy assessment 6. Classified image 7. Statistical report. Page no. 29, Ch. 1.	(5)
40.	Most widely used method to reveal spatial relationships. Also known as line, arc, node data model. 1. Connectivity 2. Adjacency 3. Containment 4. Proximity 5. Relative direction. Explain. Page no. 63, Ch 2.	(5)
41.	Query, Dissolve, Overlay, Merge, Buffer analysis, TIN. Explain any five. Page no. 76-85, Ch 2.	(5)
42.	☐High order thinking question Students can write about the use of Geospatial technology in preparation, during disaster and mitigation of disasters.Use of aerial photos, satellite images, GPS data and all spatial analysis tools like buffering. Hazard mapping .Weightage should be given to well framed answers with appropriate examples.	