CBSE | DEPARTMENT OF SKILL EDUCATION

GEOSPATIAL TECHNOLOGY (SUBJECT CODE -818)

Blue print for Sample Question Paper for Class XII (Session 2022-2023)

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

PART A - EMPLOYABILITY SKILLS (10 MARKS):

UNIT NO.	NAME OF THE UNIT	OBJECTIVE TYPE QUESTIONS	SHORT ANSWER TYPE QUESTIONS	TOTAL QUESTIONS
		1 MARK EACH	**2 MARKS EACH**	
1	Communication Skills-IV	-	-	-
2	Self-Management Skills-IV	2	2	4
3	Information and Communication Technology Skills-IV	2	1	3
4	Entrepreneurial Skills-IV	2	2	4
5	Green Skills-IV	-	-	-
	TOTAL QUESTIONS	**6**	**5**	**11**
	NO. OF QUESTIONS TO BE ANSWERED	**Any 4**	**Any 3**	**07**
	TOTAL MARKS	**1 x 4 = 4**	**2 x 3 = 6**	**10 MARKS**

PART B - SUBJECT SPECIFIC SKILLS (50 MARKS):

UNIT NO.	NAME OF THE UNIT	OBJECTIVE TYPE QUESTIONS	SHORT ANS. TYPE QUES.-I	SHORT ANS. TYPE QUES.- II	DESCRIPTIVE/ LONG ANS. TYPE QUESTIONS	TOTAL QUESTIONS
		1 MARK EACH	**2 MARKS EACH**	**3 MARKS EACH**	**4 MARKS EACH**	
1	Remote Sensing	9	2	1	2	14
2	Geographic Information System	9	1	1	2	13
3	Global Positioning System	6	1	1	-	8
4	Trends in Geospatial Technology	5	1	-	-	6
5	Application of Geospatial Technology	3	-	-	1	4
	TOTAL QUESTIONS	**32**	**5**	**3**	**5**	**45**
	NO. OF QUESTIONS TO BE ANSWERED	**26**	**Any 3**	**Any 2**	**Any 3**	
	TOTAL MARKS	**1 x 26= 26**	**2 x 3 = 6**	**3 x 2 = 6**	**4 x 3 = 12**	**50 MARKS**

CBSE | DEPARTMENT OF SKILL EDUCATION

GEOSPATIAL TECHNOLOGY (SUBJECT CODE - 818)

Sample Question Paper 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. 1	Answer any 4 out of the given 6 questions on Employability Skills (1 x 4 = 4 marks)	

i.	Suresh is 17 years old boy, studying in class XI. He is focused and determined to pursue designing as a career. He leaves no stone unturned to do his best in academics. He is hardworking towards studies & sports both. He has been selected as class monitor by his class teacher because of his dependable nature. He takes good care of class property and keeps everything well in place in an organized manner. At home as well, his books are well organized in his bookshelf. Which personality trait is dominantly observed in Amit?
	    a. Conscientiousness
	    b. Extraversion.
	    c. Openness to experience
	    d. Introversion
		1

ii.	This bar of a Calc Screen contains icons (buttons) to provide quick access to commands such as New, Open, Print, Copy and Paste etc. Which is this bar?
	    a. Title bar
	    b. Menu bar
	    c. Standard bar
	    d. Side bar
		1

iii.	_____ personality disorder is a personality disorder that is characterized by extreme perfectionism, order, and neatness.	1

iv.	Which of the following can be a barrier to becoming an entrepreneur?
	    a. Employee related difficulties
	    b. Interacting with customers.
	    c. Gaining and analyzing insight
	    d. Data analysis
		1

v.	In a spreadsheet, if you enter data in the form of numbers, what is the default alignment in a cell?
	    a. Left Aligned
	    b. Right Aligned
	    c. Centre Aligned
	    d. Justify
		1

vi.	A company that is in the first stage of its operations is known as a _____.	1

Q. 2	Answer any 5 out of the given 7 questions (1 x 5 = 5 marks)	
i.	Which are the shortest waves of Electromagnetic spectrum? 1. Visible 2. Infrared 3. Microwave 4. Gamma	1

ii.	black body is an ideal body which absorbs all ……….. without any reflection.
	
	    A. Radiation
	
	    B. Reflection
	
	    C. Emission
		1

		D. Refraction	
iii.		Which is not an algorithm of supervised classification?	1
		A. Parallel piped	
		B. Minimum Distance	
		C. K Means	
		D. Maximum Likelihood	
iv.		Which method is used to remove noise from images?	1
		A. Resampling	
		B. Rectification	
		C. Geotagging	
		D. Mosaicking	
v.		What is the spatial resolution of IKONOS?	1
		A. 5.8m	
		B. 2.5m	
		C. 1m	
		D. 0.8m	
vi.		Natural features are generally more_____in shape.	1
		A. Regular	
		B. Irregular	
		C. Visible	
		D. Firm	
vii.		Which is not a component of GIS?	1
		A. Maps	
		B. People	
		C. Organization	
		D. Procedures	

Q. 3	**Answer any 6 out of the given 7 questions (1 x 6 = 6 marks)**	
i.	Which data can be directly transferred to GIS System? A. Digital B. Manual C. Shape file D. Spatial	1
ii.	Which data model is also known as line/arc/node data model? A. Spaghetti B. Topological C. Raster D. Vector	1
iii.	The polygon D is inside the polygon B shows which property of topological data structure? A. Connectivity B. Adjacency C. Proximity D. Containment	1
iv.	Transformation of information from analog format to digital format is called- A. Scanning B. Digitization C. Vectorization D. Transformation	1

v.	Which errors occur by selecting wrong control points? A. Geo-referencing errors B. Scanning errors C. Human errors D. Thematic errors		1
vi.	The needle of the compass always points_____. A. East B. West C. North D. South		1
vii.	Which Global Navigation System was developed by European Union? A. Glonass B. Galileo C. Navstar D. Naivik		

4.	**Answer any 5 out of the given 6 questions (1 x 5 = 5 marks)**		
i.	Which type of GPS can provide horizontal accuracy within a cm? A. Recreational B. Mapping C. Survey D. Navigational		1
ii.	Altitude error is always_____than the horizontal error. A. Better B. Worse C. Equal D. Unequal		1

iii.	What is the other name of Multispectral image?	1
	A. Panchromatic	
	B. RGB	
	C. Thermal	
	D. Hyperspectral	
iv.	What is LBS?	1
	A. Location based services	
	B. Location based station	
	C. Logistic based services	
	D. Light based Sonar	
v.	Which GIS can create, edit and uses GIS maps in the field?	1
	A. Web GIS	
	B. Enterprise GIS	
	C. Mobile GIS	
	D. Open GIS	
vi.	Which is not an input of a hazard map?	1
	A. Topographic map	
	B. Satellite images	
	C. Census data	
	D. Economic data	

5.	**Answer any 5 out of the given 6 questions (1 x 5 = 5 marks)**	
i.	_____refers to the relative brightness of objects in an image.	1
ii.	_____is used to measure chemical concentrations in the atmosphere.	1
iii.	_____is geometric relation of point, line & area which is used for establishing spatial relationships.	1
iv.	_____is the most used international plane coordinate system developed by the US army.	1

v.	_____are inaccuracies of the satellite's reported location.	1
vi.	_____GIS is a system that is integrated through an entire organization.	1

6.	**Answer any 5 out of the given 6 questions (1 x 5 = 5 marks)**	
i.	_____departments are responsible for maintaining, updating & storage of land base map and electric network for operations area.	1
ii.	What are training sites?	1
iii.	Name the datum used for the maps of India.	1
iv.	Name the basic principle used in GPS to determine the receiver's location.	1
v.	Mention a benefit of 3D visualization in GIS.	1
vi.	Suggest any two uses of Geospatial technology in Security and Defense.	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.	Differentiate between 'technical' and 'non-technical entrepreneurs'.	2
8.	Explain any two parameters that describe an individual's personality in the 'Five Factor Model'.	2
9.	Why are 'persistence' and 'commitment' considered as competencies for an entrepreneur?	2
10.	How are books & music considered as sources of motivation & inspiration?	2
11.	Write the steps to protect worksheet or Calc document using option of Tools menu.	2

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

12.	Why microwave spectrum is widely used in Remote Sensing?	2
13.	Mention any four factors which affect the spectral signature of water.	2
14.	Define Raster data structure?	2
15.	Explain any two errors occur in GPS accuracy.	2
16.	What is Universal address system? Explain.	**2**

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

17.	What is Geometric distortion? How can we rectify it?	1.5+ 1.5
18.	How GIS is an efficient way of data storage and management. Explain.	3
19.	How many global navigational satellite systems in operation currently, and how they work?	3

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

20.	Image interpretation is an important process to understand the satellite images. Explain the keys which are used to interpret an image.	4
21.	What is microwave sensing? Explain any one active microwave sensor in detail.	1+3
22.	Why topological data model is the most widely used method in GIS? Explain.	4
23.	What are coordinate systems? Differentiate between Geographic and Projected coordinate systems.	1+3
24.	How Geospatial technology can be helpful in dealing with the present situation of Covid-19 pandemic? Explain.	4