CBSE | DEPARTMENT OF SKILL EDUCATION

GEOSPATIAL TECHNOLOGY (SUBJECT CODE -818)

Blue print for Sample Question Paper for Class XII (Session 2020-2021)

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	1	1	2
2	Self-Management Skills-IV	2	1	3
3	Information and Communication Technology Skills-IV	1	1	2
4	Entrepreneurial Skills-IV	1	1	2
5	Green Skills-IV	1	1	2
	TOTAL QUESTIONS	**6**	**5**	**11**
	NO. OF QUESTIONS TO BE ANSWERED	**Any 4**	**Any 3**	
	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**

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GEOSPATIAL TECHNOLOGY (SUBJECT CODE - 818)

Sample Question Paper for 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

Q. 1	**Answer any 4 out of the given 6 questions on Employability Skills (1 x 4 = 4 marks)**	
i.	Which of the following is not a type of communication? 1. Verbal 2. Visual 3. Written 4. Neo-verbal	1
ii.	_____ is relatively enduring set of traits. A. Habit B. Personality C. Behavior D. Mood	1
iii.	Which is not a trait of emotional stability? A. Anxious B. Calm C. Self-confident D. Cool	1
iv.	_____ is a software that helps in performing calculations using formulae and in analyzing the data.	1
v.	_____ refers to the capacity to adjust one's thoughts and behaviors to effectively respond to uncertainty.	1
vi.	_____ provide solutions to environmental problems by using engineering, biology, and chemistry.	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	1

		4. Gamma	
ii.		The radiation reflected as a function of the wavelength is called _____ of the surface. A. Resolution B. Spectral signature C. Projection D. Pixelization	1
iii.		Which is not an algorithm of supervised classification? A. Parallel piped B. Minimum Distance C. K Means D. Maximum Liklihood	1
iv.		Which method is used to remove noise from images? A. Resampling B. Rectification C. Geotagging D. Mosaicking	1
v.		What is the spatial resolution of IKONOS? A. 5.8m B. 2.5m C. 1m D. 0.8m	1
vi.		Natural features are generally more _____ in shape. A. Regular B. Irregular C. Visible D. Firm	1

vii.	Which is not a component of GIS? A. Maps B. People C. Organization D. Procedures	1

Q. 3	**Answer any 6 out of the given 7 questions (1 x 6 = 6 marks)**	
i.	Which data model is the simplest data structure? A. Vector B. Raster C. Spaghetti D. Topological	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?		1
	A. Geo-referencing errors		
	B. Scanning errors		
	C. Human errors		
	D. Thematic errors		
vi.	The needle of the compass always points_____.		1
	A. East		
	B. West		
	C. North		
	D. South		
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?	1
	A. Recreational	
	B. Mapping	
	C. Survey	
	D. Navigational	
ii.	Altitude error is always _____ than the horizontal error.	1
	A. Better	
	B. Worse	
	C. Equal	
	D. Unequal	

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

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.	Name the four types of sentences.	2
8.	Explain any two benefits of self-motivation.	2
9.	Explain any two competencies that are found in successful entrepreneurs.	2
10.	Explain any two competencies that are found in successful entrepreneurs.	2
11.	Explain any two examples of green jobs.	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.	What is Edge matching? Explain.	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?	3
18.	How GIS is an efficient way of data storage and management. Explain.	3
19.	How DGPS provide more accuracy than GPS? Explain.	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.	4
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.	4
24.	How Geospatial technology can be helpful in dealing with the present situation of Covid-19 pandemic? Explain.	4