CBSE | DEPARTMENT OF SKILL EDUCATION

GEOSPATIAL TECHNOLOGY (SUBJECT CODE - 818)

Blue print for Sample Question Paper for Class XII (Session 2024-2025)

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

PART A - EMPLOYABILITY SKILLS (10 MARKS):

UNIT NO.	NAME OF THE UNIT	OBJECTIVE TYPE QUESTIONS 1 MARK EACH	SHORT ANSWER TYPE QUESTIONS 2 MARKS EACH	TOTAL QUESTIONS
1	Communication Skills - IV	1	1	2
2	Self-Management Skills - IV	1	1	2
3	Information and Communication Technology Skills - IV	2	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**	**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 1 MARK EACH	SHORT ANS.TYPE QUES.-I 2 MARKS EACH	SHORT ANS.TYPE QUES.- II 3 MARKS EACH	DESCRIPTIVE /LONG ANS. TYPE QUESTIONS 4 MARKS EACH	TOTAL QUESTIONS
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**	**34**
	TOTAL MARKS	**1 x 26= 26**	**2 x 3 = 6**	**3 x 2 = 6**	**4 x 3 = 12**	**50 MARKS**

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Sample Question Paper for Class XII (Session 2024-2025)

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.	What is a sentence?	1
ii.	Mina, is creative, curious, active, flexible and adventurous. She is interested in learning new things, meeting new people and making friends, and likes visiting new places. Identify the type of personality trait she has?	1
iii.	What is the shortcut key to print a spreadsheet?	1
iv.	Define a startup.	1
v.	Write the full form of UNEP.	1
vi.	What will you do to select an entire worksheet in a spreadsheet?	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 D. Refraction	1
iii.	Which is not an algorithm of supervised classification? A. Parallel piped B. Minimum Distance C. K Means D. Maximum Likelihood	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 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? 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?	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.	What are the stages of active listening?	2
8.	Differentiate between intrinsic motivation and extrinsic motivation.	2
9.	How will you protect your spreadsheet with a password?	2
10.	'It is important to be decisive as an entrepreneur.' Justify.	2
11.	Enumerate the benefits 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.	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