GEOGRAPHY PRACTICAL

HSE II   Max score: 40
                                                                Time : 3Hrs

I. On The Spot- Answer Any Four ˙ (Give Any Six)   (4x2=8)

1. Identify the Format into Vector, Raster, and Real entities.
2. Categorise the computer hardware parts as input, output and storage device. ·
3. Find out the precise location of the given object using GPS.
4. What are the three types of platforms used in Remote Sensing?
5. What do you mean by Areal Photography? Which are the agencies carrying out this work in India?
6. Read the temperature/ pressure/ wind direction/ wind speed using suitable instruments.
7. What are contours? What does it mean when contours are very widely found?
8. Write the Marginal Information of the given Toposheet.
9. Identify the Weather Instruments displayed and their uses.
10. Write the Marginal Information of the given Weather Chart.
11. Orient the Stereopair in order to get the 3D vision through stereoscope.
12. Mention the direction of the given object with reference to your position using magnetic compass.
13. How does a map differ from a globe?
14. Identify the Latitude, and Longitude of a Place from the given Toposheet.
15. Identify the Great Circle, Greenwich Meridian from the globe.   ˙.
16. From the Weather Map given Identify a low pressure area.
    Also identify the places having haze, overcast sky and rainfall.
17. Name two liquids used in Maximum and Minimum thermometer.
18. Name the instruments used to measure-
    a) Direction of wind b) Velocity of wind c) Humidity d) Atmospheric Pressure
19. Expand GIS and GPS and write their uses.
20. Differentiate large scale map and small scale map. Write one example each.
21. Identify the major Features of the given Satellite Imagery based on colour signature.
22. Identify different types of Maps.
23. Distinguish between Latitude and Longitude.
24. Distinguish between Sun Synchronous Satellite and Geostationary Satellite.

II. Drawing – Answer Any Four   (Give Any Six)   (4x3=12)

1. Draw a circle with 2 inch radius and draw the following parallels of latitude
   (a) 30° N   (b) 40° S   (c) 10°N   (d) 70°S
2. Construct a Cylindrical Equal Area Projection with a radius of 2 cm ,
   and the projection interval is 30°.
3. Construct a Conical Projection with one standard parallel. R.F 1: 128000000
   (Radius of the original earth is 640000000 cm). Latitudinal extension 20° N to
   80° N Longitudinal extension 10°E to 130°E. Graticule Interval 10°.

4. Construct a graphical scale when the RF is 1:500000 to read the distance in km.
5. Construct a Star Diagram by using the following data.

Station : Kannur

Direction of Wind	N	NE	E	SE	S	SW	W	NW	Calm Days
No. of Days	20	34	48	50	46	80	30	52	5

6. Draw conventional signs and symbols for the following.   (any six)
      (a) Wind mill   (b)Fort   (c) Broad guage railway line
      (d) International Boundary (e) Temple (f) Foot path
      (g) Spot Height (h) Canal (i) Unmetalled Road
7. Prepare a Topographic layout using suitable conventional signs,symbols and
      colours.
      (a) Scale 1;100000,Length 12Km & Width10 Km.
      (b) A Perennial river flows North to south direction.
      (c) Grassland spread over north east.
      (d) A broad gauge railway line running north west to south east direction.
      (e) Settlement found in the south western parts with a Post Office in the middle .
      (f) Two Perennial wells are found in the grassland.
8. Draw contour cross section for the following.   (any three features)
      (a) U shaped valley (b) Waterfall (c) V shaped valley
      (d) Conical hill (e) Convex Slope (f) Gentle Slope
9. Prepare a weather chart by using the following data.
      (outline map of India will be provided)
      a. Overcast sky prevails along the West coast near Karnataka.
      b. Clear sky prevails over the western Gujarath.
      c. A low pressure center with 990 mb over the Punjab plain.
      d. High pressure system with barometric value of 1010 mb in the West of Kashmir.
10. Draw a Choropleth /Isopleth /Dot map with the given data.
      (Outline map will be provided)

III. Calculation – Answer Any Four   (Give Any Six)   (4x2=8)

1. The distance between two points on an Aerial Photograph is measured as 3 cm. The known distance between the same two points on the ground is 6 km. Compute the scale of the aerial photograph (Sp)

2. Convert the given statement of scale into RF-
    (a)1 Inch to 5 Miles (b) 1cm to 9 kms

3. Convert the given RF into statement -
    (a)1:600000 (kms) (b)1:1267200 (miles)

4. Compute Median for the following data

Class(C)	10-20	20-30	30-40	40-50	50-60	60-70
Frequency(F)	10	25	15	26	12	10

5. Calculate the mean temperature of Kolkota for six month from the given data.

Months	Jan	Feb	March	April	May	June
Temperature in degree Celsius	21	23	28	32	33	31

6. Calculate the local time for the following places when GMT (0 ° longitude) is 10 am
    (a) 45 °E   (b) 75° W

7. Calculate Arithmetic Mean from the following data.

Marks	0-10	10-20	20-30	30-40	40-50	50-60
No. of Students	6	10	24	30	20	10

8. Calculate the actual road distance between the given places from the Toposheet provided.
9. Calculate the actual ground distance between 6°to 35° .
10. Calculate Mean Median and Mode for the given Data.
11. Calculate the distance between places A and B in the Toposheet provided, using a thread.

IV. Computer Aided – Answer Any One (Give any Two)   (1x4=4)

1. A shape file of Kerala with district boundaries is given.
   District wise sex ratio is given in a table.
   Prepare a map in Print Composer tool showing sex ratio differences
   for various district in Q Gis.

2. Represent the following data by a Pie Diagram.

Countries	Australia	Africa	South America	North America	OPEC Countries	European Union	Asia
Percentage of India's Export	3.7	3.3	10.1	19.2	15	21.1	27.6

3. Prepare a line Graph for the given data by using a Computer.

4. Frequency polygon/ Ogives for the given data using computers.

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Total 40