

Std : X

Prelims-Nov 2018

Subject: GEOGRAPHY

Date- 6/12/18

Marks:80

Time: 2 hrs

You will not be allowed to write during the first 15 minutes.

This time is to be spent in reading the question paper.

The time given at the head of this Paper is the time allowed for writing the answers.

SECTION A (30 Marks)

Compulsory: To be attempted by all students

Question 1

Study the extract of survey of India, Map sheet No 45 D/ 10 and answer the following questions:-

(a) Give the meaning of the conventional symbols printed on the map of the following six figure grid references :

1. 197036

2. 191116

[2]

(b) Give the four figure grid reference of one prominent example of each of the following:-

1. Rock outcrop in the south western part of the map .

2. A relief feature formed by excessive weatheringⁱⁿ North western part of the map.

[2]

(c) What is the compass direction of Bageri in 2002 from Hanumanji ka mandir in 2208 ?

[1]

(d) 1. What would be the main source of water supply for Mt.Abu .

[1]

2. Give a reason for your answer.

[1]

(e) Comment on nature of the wells Ingrid square 1806.

[1]

(f) There are no roads connecting Mt.Abu to the settlements in the south west . Why ?

[1]

(g) Explain the necessity of so many causeways along the metalled road in the south west corner of the map.

[1]

(h) Explain the following :-

1. Words Falls in grid square 2307.

2. 6r in grid square 1903

[2]

(i) Describe the nature of roads connecting Gautam Maharishi Mandir in 2007 and Shri Vashist Asharam in 2207.

[1]

(j) What is the settlement pattern of the largest town on the map extract supplied to you?

[1]

- (k) Name the type of drainage pattern found in grid square 2209. [1]
- (l) Name any two types of forested regions mentioned in the map extract. [1]
- (m) Calculate the distance as the crow would fly between Hanuman ji ka Mandir to spot height 854. Give your answer in kilometers and meters. [2]
- (n) NAME AN IMPORTANT SETTLEMENT FROM SECURITY POINT OF VIEW. [1]
- (o) What is the verbal scale of the map? Why is it not considered the best scale? [1]

Question 2

Mark and name the following on the outline map of India provided: [10]

- (a) The longest westward flowing river of India.
- (b) Lake Wular
- (c) The gulf of Cambay
- (d) Chandigarh
- (e) Shade and name a densely populated state in southern India
- (f) A region of Regur soil in India
- (g) The western ghats
- (h) The winds which bring rain to Patna
- (i) Mt. Godwin Austin (K2)
- (j) The meridian on which Indian Standard time is based.

SECTION B (50 MARKS)

Attempt any five questions from this section

Question 3

- (a) 1. What kind of climate does India experience?
2. Mention any two factors responsible for it. [2]
- (b) Name two types of cyclonic systems that affect India and two areas that receive rainfall from these. [2]
- (c) Give reasons:-
1. Mango showers are beneficial local winds.
2. Chennai has lower range of temperature than Lucknow. -[2]
- (d) What is meant by 'Burst of Monsoons'? [1]
- (e) Study the climatic data given below and answer the questions that follow

Month	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
°C	25.0	25.5	26.3	27.1	30.0	36.2	36.0	35.9	30.3	28.4	27.0	24.6
Cm	24.5	23.1	15.0	2.4	0.1	11.0	9.3	7.2	4.0	9.4	14.5	20.4

1. Calculate the annual temperature range.
2. What is the total annual rainfall?
3. Presuming that the station is located in India give a reason for its location being on the east coast or the west coast of India. [3]

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c) Two years ago a man's age was three times the square of his daughter's age. Three years hence his age will be four times his daughter's age. Find the present age of the man. [4]

Question 10

a) Find the value of p if $(x + 2)$ is a factor of the polynomial $3x^3 + px^2 - 18x + 40$. Hence factorise the expression completely. [3]

b) A cylindrical container of radius 6 cm and height 15 cm is filled with chocolate ice-cream. The entire ice cream has to be distributed to 10 children in equal cones with hemispherical tops. The radius of base of cone is equal to the radius of hemispherical top. If the height of the conical portion is 4 times the radius of the cone. Find the radius of the ice cream cone. [3]

c) Use a graph paper for this question. Use a scale 1 cm = 1 unit on both the axes.

i) Plot the point $A(4, 5)$. Reflect Point A in the x axis to get the image A' . Write the coordinates of point A' .

ii) Plot the points $B(1, 3)$ and $C(2, 1)$ on the same graph. Reflect the points B and C in the line AA' to get the images B' and C' . Write the coordinates of B' and C' .

iii) Join the points $ABC C' B'$. Give the geometrical name of the figure formed by $ABCC' B'$.

[4]

Question 11

a) A pole of height 5 m is fixed on the top of a tower. The angle of elevation of the top of the pole as observed from a point P on the ground is 60° and the angle of depression of the point P from the top of the tower is 45° . Find the height of the tower to the nearest whole number. [4]

b) Use a graph paper for this question [6]

The weights of 160 applicants for the Army are shown below

Weight in kg	50-55	55-60	60-65	65-70	70-75	75-80	80-85	85-90
Number of applicants	5	8	16	26	40	28	21	16

i) Draw an ogive for the above data

ii) Use the ogive to estimate the median

iii) Lower quartile

iv) If an applicant weighing less than 52 kg and more than 87 kg is rejected find what fraction of the applicants are rejected because of their weight?