


GEOGRAPHY
H.C.G. - Paper – 2

II. ANALYSIS OF PERFORMANCE

Question 1

Study the extract of the Survey of India Map sheet No. **45D/10** and answer the following questions:

- (a) Give the four figure grid reference for a figure similar to the one given below. Identify the figure:  [2]
- (b) How is the drainage pattern in grid square 1606 different from that in grid square 1608. [2]
- (c) Identify the correct six figure grid reference for each of the following:
- (i) Gautam Maharishi Mandir
200071; 071200; 201070?
- (ii) .443
172059; 052179; 179052? [2]
- (d) Name the most prominent settlement other than ABU. Give two reasons to support your answer. [2]
- (e) (i) What is the general slope of the land in the north-west corner of the map extract?
(ii) What is the compass direction of Chandela (1803) from Hanumanji ka Mandir (2208)? [2]
- (f) What do you understand by the following terms as used on the map extract?
- (i) Causeway (1702)
(ii) Falls 25m (2307). [2]
- (g) (i) If you were to cycle at 10 km an hour, how much time would it take to cover the north-south distance depicted on this map extract?
(ii) Calculate the area enclosed by Eastings 19 to 22 and Northings 04 to 09. [2]
- (h) (i) Identify one natural feature in grid square 1610
(ii) Identify one man made feature in grid square 1903. [2]
- (i) Give two probable reasons, other than dry water features, to indicate that the region depicted on the map extract receives seasonal rainfall. [2]
- (j) Calculate, in metres, the difference in height between the highest point on the map extract and the contour height given in grid square 2402. [2]

Examiners' Comments

- (a) The first part of the question was answered correctly. In most cases i.e. 4 figure number, Candidates could not identify the conventional symbol correctly. In most cases the second part of the answer was answered incorrectly or answered partly correct i.e. instead of writing seasonal tank with embankment candidates wrote either just “dry tank” or “tank” and in most cases “embankment” was missing.
- (b) Most candidates were able to identify the drainage patterns, although, they misspelt the terms in many cases. In some cases a little confusion between “Trellis” and “dendritic” pattern was observed.
- (c) The Six figure grid reference was identified and answered correctly in most cases.
- (d) A few candidates got confused and named Hetamji and Mohanpura instead of Vijna. In most cases candidates wrote the correct answer.
- (e) (i) Most candidates could not understand the general slope and answered it as steep/gentle/convex, etc. The direction of the slope of the land was answered incorrectly in most cases.
(ii) The compass direction was correctly answered in most cases.
- (f) (i) The causeway was not defined correctly by candidates in most cases.
(ii) Candidates just repeated the term “falls” as given in the question or wrote stream is falling. Only a few wrote the correct term “waterfall” of 25m.
Generally the definitions of both the terms were not written appropriately.
- (g) (i) A few candidates were unable to understand the question and answered incorrectly. However most candidates answered correctly.
(ii) Except in a few cases where the area was not calculated of the enclosed region, most candidates answered correctly. A few candidates lost marks as they did not write the unit.
- (h) (i) Answered correctly by most candidates. However some mentioned “tries” as a natural feature which was incorrect and a few wrote “broken land” instead of the correct term “broken ground”.

Suggestions for teachers

- The question being of a compulsory nature should be assigned maximum practice.
- Conventional symbols should be revised and their meaning explained clearly to students.
- Definition of terms used on the toposheet should be revised regularly.
- Emphasis should be laid on writing correct spelling of terms.
- The concept of the nature of slope and general slope of the land should be made clear. Nature of slope relates of gentle/steep/convex etc. While general slope relates to the slope on map area i.e. which side is higher and which side is lower students should be taught accordingly to look for contour heights and spot heights to answer about the general slope of the land and for nature of slope.
- Additional practice on applied questions on distance calculation should be taken up to build up the concept of scale and ground relation.
- Emphasis should be laid on writing the unit while writing the answer on distance or area calculation.
- Drainage patterns must be revised regularly. A clear difference between dendritic and Trellis pattern should be taught.

- (ii) Answered correctly by most candidates.
- (i) Most candidates were unable to comprehend “other than dry water feature” and hence incorrectly answered ‘dry stream or dry tank’. Some incorrectly wrote open scrub.
- (j). Most candidates incorrectly answered as they could not identify the highest point. In some cases the unit was not mentioned although the calculations were correct. No marks were awarded if the unit was missing.

- Students should be taught about the evidence of seasonal rainfall and scanty rainfall separately to avoid incorrect answers being written.
- Differences between man-made and natural features should be taught clearly. “Trees” to be avoided in both.
- Students should be taught to read questions carefully before attempting and to understand what must be written as the correct answer.
- 6-figure grid reference must be practised regularly.
- Regular practice of 46D/7 and 45D/10 toposheets at least once a week will help in clearing doubts. Students must be taught to look for the highest and lowest points on the map extract.

MARKING SCHEME

Question 1.

(a) 1511/1811/1711/1903

(Any one)

Dry tank with an embankment

(b) 1606 - Radial

1608 - Trellis

(c) (i) Gautam Maharishi Mandir

200071

(ii) .443 – 179052

(d) Vajna (1503)

Two reasons: Presence of a police chowki , Metalled road

(e) (i) Towards the west / South West

(ii) South West

- (f) (i) Causeway is a raised metalled road over a non-perennial stream or Marshy area or which serves as a temporary bridge.
(ii) Falls 25 indicates a waterfall of height 25metres.
- (g) (i) 1 hour
(ii) 15 square kms
- (h) (i) 1610 – broken ground / seasonal stream / dry stream
(ii) 1903 – Permanent settlement / embankment
- (i) Presence of broken ground / causeways / road motorable in dry season.
- (j) Highest point 1409 metres - contour heights to 80 metres = 1129 metres

Question 2

On the outline map of India provided:

- (a) Mark and name the *Nilgiris*. [1]
- (b) Shade and label the *Malwa Plateau*. [1]
- (c) Shade and label the *Malabar Coastal Plains*. [1]
- (d) Mark and name the river *Gomti*. [1]
- (e) Shade and name the *Andaman Sea*. [1]
- (f) Mark and name *Allahabad*. [1]
- (g) Mark with a single arrow and name the winds that bring winter rain to north-west India. [1]
- (h) Mark and name *Digboi*. [1]
- (i) Mark an area with laterite soil below the *Tropic of Cancer*. [1]
- (j) Mark and name the *Karakoram Pass*. [1]

Examiners' Comments

- (a) The 'Nilgiri' was marked correctly in most cases by most candidates.
- (b) The Malwa plateau was marked incorrectly as in most cases it was shaded up to Betwa. Some candidates shaded a larger area than required that stretched up to the river Narmada.
- (c) Some candidates shaded and marked it incorrectly. In some cases the Malabar Coast was shaded way beyond and onto the Kanara coast.
- (d) The river Gomti was marked but not shaded in some cases. Some got confused between the Gomti and Ghagra and hence lost marks.
- (e) The Andaman Sea shading went across the islands onto the Western side or was shaded around the Andaman group of islands which was an incorrect answer.
- (f) Allahabad was marked correctly in most cases except for a few where it was observed that candidates used a larger dot or marked it at Ganga Gomti confluence.
- (g) Only a few candidates attempted this question. Arrows were incorrectly drawn in most cases by candidates as they were unsure of the correct answer.
- (h) The exact location of Digboi was marked correctly only in a few cases.
- (i) The laterite soil was shaded correctly in most cases. Some however shaded the coastal area incorrectly. Some candidates did not read the question carefully and marked the area in north east rather than south of tropic of cancer.
- (j) Candidates did not use proper symbols to show the pass. Some candidates marked it over a large area and shifted it to the left or right side of the correct location of the pass. In few cases the Karakoram range was marked instead of the pass.

Suggestions for teachers

- Marking / Locating and shading on maps is essential in Map reading hence regular practice must be assigned
- Consult an Atlas and show the location of all features to students on the map provided in examinations.
- Correct locations should be explained following turns of rivers or indentations in coastal margins.
- Coastal areas to be shaded on land portion.
- Students must be taught to draw arrows with the arrow head pointing towards the feature.
- Dots used to show cities should not be too large.
- Questions to be read carefully to understand on what is required to be marked.
- Appropriate use of colours of symbols on the map will not only make marking interesting but also clear concepts.
- Additional practice and regular revision is essential to better performances and grades.

MARKING SCHEME

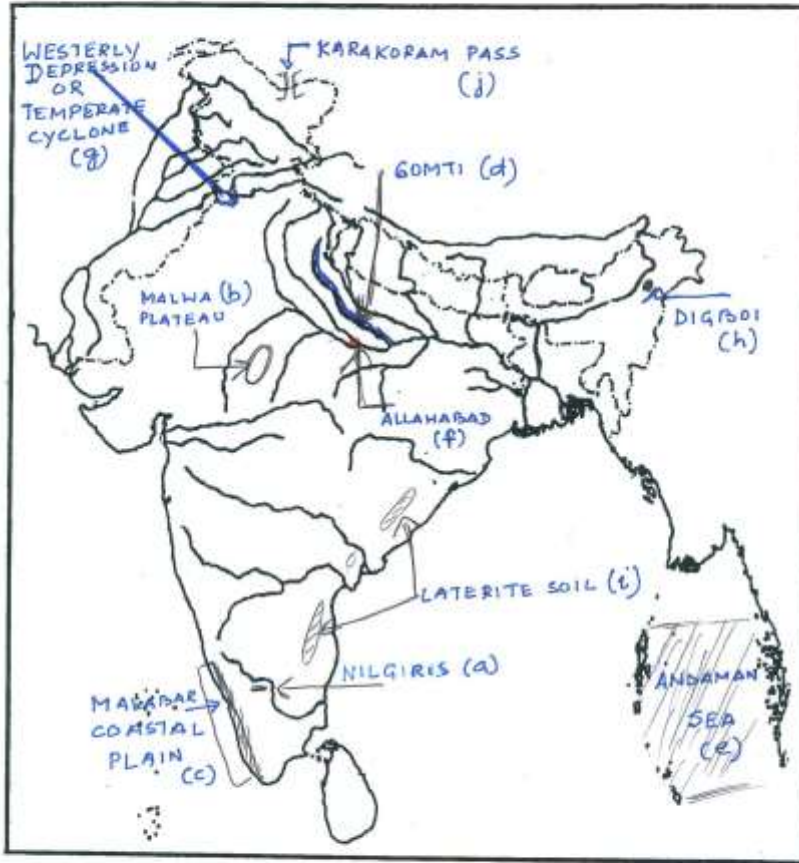
Question 2.

Outline Map for Question No.2 (One mark for each sub question - total 10 marks)

NameIndex No.

(This map, if used, must be fastened with all other answers)

Map of India for Question 2.



ONLY FOR THE EXAMINER									
a	b	c	d	e	f	g	h	i	j

Question 3

- (a) Explain *two* factors that affect the climate of India giving a suitable example for each. [2]
- (b) State *two* differences between the rainfalls that occur from June to September and that from December to February in North India. [2]
- (c) Give a geographic reason for each of the following:
- (i) Kerala has the longest rainy season.
 - (ii) The Konkan coast experiences orographic rainfall.
 - (iii) The city of Kanpur in Uttar Pradesh has a higher range of temperature than that of Chennai in Tamil Nadu. [3]
- (d) 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
Temp. °C	21.0	21.9	24.3	27.2	28.0	26.4	26.1	25.4	25.0	26.0	23.8	21.2
Rainfall Cm	5.1	2.8	1.2	1.7	3.9	4.6	8.4	11.4	11.9	31.6	34.5	14.8

- (i) Identify the hottest month.
- (ii) Calculate the annual rainfall.
- (iii) Name the winds that bring the maximum rainfall to this city. [3]

Examiners' Comments

- (a) Most candidates explained the factors correctly but wrote incorrect examples.
- (b) Candidates overlooked "North India" and related the answer to N.E. monsoon instead of the Western disturbance.
- (c) (i) Kerala having the longest rainy season - most candidates wrote about approaching winds but missed out on retreating winds and thus lost marks.
- (ii) Some candidates failed to relate the orographic rainfall with the Western Ghats. Some were unsure of the location of the Konkan coast.
- (iii) This part was answered correctly by most candidates except for a few who related the location of Kanpur to a rain shadow area. In some cases both cities were not mentioned in the answer.

Suggestions for teachers

- Make use of wall maps while explaining the chapter on Climate to enable students to understand the location of relief features and their impact on the climate.
- Students should be asked to read the question carefully to understand it well before answering.
- Insist on writing differences in a tabular form with corresponding points on either side.
- Additional practice of reasoning based questions should be undertaken to ensure concepts are clear.

- (d) (i) Most candidates correctly identified the hottest month from the table.
- (ii) Calculation errors were observed in a few cases. Some candidates calculated the mean annual rainfall instead of the total annual rainfall. In some cases the unit was not mentioned.
- (iii) There was some confusion in identifying the wind. Few candidates wrote N.E. Trade, which was incorrect.

- In data calculation students should be asked to revise before writing answers.
- Insist on writing of unit by students on all data based questions on the topic of climate.
- Revision and short class tests will enable a comprehensive and better understanding among students.

MARKING SCHEME

Question 3.

- (a) **Latitude**- the further one moves away from the equator, the colder it gets as the rays of the sun get more oblique. Hence places in the south like Kochi, Chennai, Bangalore and others are warmer than places in the north like Delhi, Agra, Srinagar and others due to proximity to the equator.

Altitude-the higher one goes above sea-level, the colder it gets as the atmosphere is heated from below. Hence places at a higher altitude like Simla, Mussourie, Panchgani and others are cooler than places at sea level like Mumbai, Bhopal, Jaipur and others.

Distance from the sea- the further one moves away from the sea, the higher will be the range of temperature. Hence places like Mumbai, Chennai, Kolkata and others will have an equable climate as they experience the moderating influence of the sea, while places further inland like Pune, Indore, Hyderabad, Amritsar, Delhi and others will have a continental type /extreme type of climate.
(Any relevant examples)

Varied Relief- When mountains lie perpendicular to onshore winds, heavy rainfall occurs on the windward side and scanty rainfall occurs on the leeward side; and when mountains lie parallel to rain-bearing winds, little rain falls. E.g Aravallis – Thar / Rajasthan./ So places that lie on the windward side of mountains like Mumbai, Cherrapunji and others will receive more rain than places that lie on the leeward side of mountains like Pune, Shillong and others. Alignment of mountain ranges/ Presence of Himalayas- Checking the South West Monsoons from blowing into Central Asia / Checking Cold winds from Central Asia. Impact of prevailing winds / Upper air circulation / Jet Stream.
(Any 2 points)

- (b)

Rainfall in June-Sep	Rainfall in Dec – Feb
Orographic	Cyclonic
Heavy/torrential	Light
Causes destruction	Beneficial

(Any two)

- (c) (i) Kerala lies to the SW and hence is the first state to receive rain from the SW Monsoon, Arabian Sea branch as these winds move from SW to NE. These withdraw from North to the South and hence Kerala is the last state from which these winds withdraw. Kerala is the first state to receive the South West Monsoon and the last to see it withdraw .
- (ii) The Konkan coast lies on the windward side of the western ghats and hence receives heavy rain from the SW Monsoon winds, Arabian Sea branch. The windward side of an area is the slope of a range that gets the full blast of an onshore wind and hence get plenty of rainfall.
- (iii) Kanpur lies to the interior, away from the influence of the sea; whereas Chennai lies along the coast and is influenced by the sea. As Kanpur is located in the Interior it is deprived of the moderating influence of land and sea breeze.
- (d) (i) May
- (ii) 131.9 cm
- (iii) Retreating Monsoon.

Question 4

- (a) State the characteristic of each of the soils named below that makes them most suitable for crop cultivation:
- (i) Black soil.
- (ii) Red soil. [2]
- (b) State the geographic term for each of the following processes:
- (i) The process by which soluble minerals dissolve in rain water and percolate to the bottom, leaving the top soil infertile.
- (ii) The process by which rain water, flowing in definite paths, removes the top soil, thus causing deep cuts to the surface of the land. [2]
- (c) Define the following:
- (i) Pedogenesis.
- (ii) Humus.
- (iii) Bhangar. [3]
- (d) Give a geographic reason for each of the following:
- (i) Alluvial soil is extremely fertile.
- (ii) Need for Soil conservation.
- (iii) Reforestation should be practised extensively. [3]

Examiners' Comments

- (a) Most candidates answered correctly. In some cases candidates wrote the general characteristics of both soils rather than the one which is suitable for cultivation. A few mentioned the names of crops grown in the soil rather than its characteristics.
- (b) (i) Most candidates answered correctly except for a few who wrote acid rain instead of leaching.
(ii) Candidates wrote rill erosion instead of stating gully erosion.
- (a) (i) Answered correctly by most candidates, however some candidates got confused between Pedology and Paedogenesis.
(ii) Humus was written as organic matter only. It was not related to the soil by candidates.
(iii) Answered correctly by most candidates.

Suggestions for teachers

- Guide students to read the question carefully to understand what is required to be answered.
- Differences between rill erosion and gully erosion should be made clear to students by using diagrams and explanations with the help of pictures.
- Definitions of terms related to the chapter on soil should be revised with emphasis on the use of key words in an answer.
- Encourage students to prepare their own short notes and tables (charts). This will encourage them to read the whole chapter and note down important points which are discussed in class.
- Extensive discussions on answering application based questions should be undertaken in class to make concepts clear.

MARKING SCHEME

Question 4.

- (a) (i) Black soil- moisture-retentive/self-ploughing/rich in lime, iron, calcium, alumina, potash/ deep and fine grained / clayey ... (Any one point)
(ii) Red soil- rich in iron/porous/friable/does not get water-logged/responds to manures or fertilizers /rich in potash ... (Any one point)
- (b) (i) leaching
(ii) Gully erosion
- (c) (i) Pedogenesis- the process of soil formation.
(ii) Humus- the decayed organic matter that helps make soil fertile.
(iii) Bhangar- the older,less fertile alluvial soil.
- (d) (i) as it contains minerals like iron, potash, lime../is loamy/has sufficient depth/is renewed annually/ It is a transported soil which brings along lots of minerals ... (Any one point)
(ii) As soil supports all plant life/to increase our agricultural output/ Various methods/ Efforts made by man to check soil erosion and retain the fertility of the soil... (Any one point)
(iii) As it helps prevent soil erosion/holds the soil together/helps maintain the ecological balance/checks global warming/reduces severity of drought... (Any one point)

Question 5

- (a) State *two* characteristics of Tropical Deciduous forests. [2]
- (b) State *two* reasons why Tropical Evergreen forests are difficult to exploit. [2]
- (c) Identify the tree as per its characteristics mentioned below:
- (i) It yields wood that is hard and scented and is usually found in high altitudes.
 - (ii) It is generally found in deltaic regions and is used to make boats.
 - (iii) The furniture made from the wood of this tree is generally the most expensive. [3]
- (d) Differentiate between *afforestation* and *deforestation*. State a disadvantage of deforestation. [3]

Examiners' Comments

- (a) Most candidates answered correctly. Some got confused between the characteristics of tropical evergreen and tropical deciduous forests. In some cases candidates wrote the climatic conditions required as the characteristics of the forest.
- (b) Most candidates answered correctly. In some cases confusion was observed in the answers on tropical evergreen and tropical deciduous.
- (c) (i) Most candidates missed the second part of the question "found in high altitude" and concentrated only on hard and scented wood and wrote the answer accordingly.
- (ii) Most candidates answered correctly.
 - (iii) Answered correctly by most candidates.
- (d) Most candidates answered this part correctly. In some cases the second part of the question was not dealt with separately. It was written with the difference between afforestation and deforestation.

Suggestions for teachers

- Encourage students to read the question carefully before attempting to answer.
- Explain the difference between tropical evergreen and tropical deciduous so that students are not confused between the two while answering.
- Climatic conditions required cannot be considered as a characteristic of the vegetation belt.
- Students should be asked to read the questions carefully and write separate answers for the part or sub part of the question and to avoid mixing it with the previous answer. Each sub part should be answered separately beginning from a new line.
- Revise the uses of trees and encourage students to prepare their own revision table.
- Discuss reasoning based questions to make concepts clear.
- Encourage students to write differences in a tabular form.

MARKING SCHEME

Question 5.

(a) Any two of the following:

- Tropical deciduous forests have trees found in pure stands.
- Trees shed their leaves in a particular season Provide valuable timber and other forest products.

(b) Tropical evergreen forests are dense/ Heavy logs make it difficult for accessibility/ Trees are found in mixed stands/ Dense undergrowth... (Any two points)

(c) (i) deodar

(ii) sundari

(iii) Mahogany/Rosewood...

(Any one)

(d)

Afforestation	Deforestation
Planting of trees over a large area	Cutting of trees over a large area Disadv. Leads to soil erosion/extinction of flora and fauna/rise in temperatures/floods/increases severity of drought helps maintain the ecological balance/checks global warming/reduces severity of drought... (Any one point)

Question 6

(a) State *two* reasons why irrigation is important to a country like India. [2]

(b) Name *two* modern methods of irrigation. State *one* important reason for their growing popularity. [2]

(c)(i) Why is well irrigation still a popular means of irrigation? Give *two* reasons to support your answer.

(ii) State the significance of rainwater harvesting. [3]

(d)(i) Why is the world in danger of facing a severe water shortage in the coming future? Give *two* reasons to support your answer.

(ii) State *one* measure the Government should adopt to handle the present water crisis. [3]

Examiners' Comments

- (a) Answered correctly by most candidates.
- (b) Most candidates answered correctly except in a few cases where confusion was observed between modern methods and traditional methods, such as, "well".
- (c) (i) Answered correctly by most candidates.
(ii) Most candidates answered correctly except in certain cases where methods of rain water harvesting were written instead of the significance of rain water harvesting.
- (d) (i) Answered correctly by majority of candidates.
(ii) Most candidates answered correctly while some wrote vague answers which were not related to measures adopted by the government.

Suggestions for teachers

- Students must be encouraged to read the question carefully to understand as to what they are supposed to answer.
- Reasoning based questions should be discussed in class rather than emphasising on learning of facts alone. This will develop the comprehension ability of students.
- Guide students to understand the difference between traditional and modern methods by explaining their use and importance.
- Encourage students to participate in classroom discussions which will enable them to prepare and answer reasoning based questions.
- Encourage students to prepare short notes and tables for revision on their own.
- Make use of maps, diagrams and pictures to explain concepts. Keep relating the regional study of India to the basics which they have learnt in Class IX for a better understanding.

MARKING SCHEME

Question 6.

- (a) Irrigation is required as rainfall is erratic and unevenly distributed, Irrigation is required to grow crops throughout the year as rainfall is seasonal, Irrigation is required as some crops like rice and jute require more water than supplied by rain, Irrigation is required to increase agricultural output by providing the right amount of water at the right time. Multiplicity of crops / Commercialised crops/ Nature of Soil / Monsoon is seasonal. (Any two points)
- (b) Modern methods of irrigation- Drip irrigation, Spray irrigation, Sprinkler irrigation. (Any two types)
- Reason- they prevent wastage of water/provides the right quantity of water at the right time / No waterlogging/ No soil erosion (Any one reason)

- (c) (i) well irrigation is still popular as it is cheap/easy to construct/occupies a small area/control of water is in the hands of the farmer / Can be dug at any convenient place/ Independent source of Irrigation. (Any two points)
- (ii) Rainwater harvesting helps to meet the increasing demand for water/ helps to check surface run-off that chokes the drain / recharge groundwater resource/ reduce soil erosion / raise underground water table. (Any one point)
- (d) (i) Severe water shortage is due to wastage/ pollution/ overuse/ mismanagement / Increasing population / increasing Industries. (Any two points)
- (ii) make rainwater harvesting mandatory in every housing colony/levy fine on wastage/pass laws to ensure water is recycled in factories. (Any one point)

Question 7

- (a) State *two* reasons why limestone is a valuable mineral. [2]
- (b) State the most important use of the following:
- (i) Iron ore
- (ii) Bauxite [2]
- (c) Name the:
- (i) Largest oil refinery in the Public sector.
- (ii) State that is the largest producer of coal
- (iii) Best variety of iron ore. [3]
- (d) Give a geographic reason for each of the following:
- (i) Many port cities have their own oil refineries.
- (ii) Petroleum is called a 'fossil fuel'.
- (iii) Coal is called a versatile mineral. [3]

Examiners' Comments

- (a) Most candidates answered the question correctly.
- (b) (i) Most candidates answered correctly. Some however wrote that iron ore is used in “iron industry” rather than mentioning “iron and steel industry”.
(ii) Answered correctly by most candidates.
- (c) (i) Most candidates wrote incorrect answers. Some wrote “Reliance” India limited which is a private sector and not a public sector enterprise.
(ii) Answered correctly by most candidates. Some candidates however wrote “area or mining area” instead of state.
(iii) Most candidates answered correctly. In some cases haematite was written instead of magnetite.
- (d) (i) Some candidates wrote vague and incorrect answers and instead of writing oil is ‘imported’ they wrote ‘exported’. Candidates could not relate port cities with “their own” oil refineries.
(ii) The word “fossil fuel” was not understood by some candidates and hence they wrote vague answers.
(iii) Some candidates found it difficult to understand the meaning of the term “versatile” and subsequently wrote irrelevant and incorrect answers.

Suggestions for teachers

- The lesson on minerals has numerous facts to be learnt hence encourage students to learn them extensively.
- Discuss reasoning and application based questions in class.
- Advise students to learn the largest producer of each mineral and at least three important uses of each mineral which is in the scope of syllabuses.
- Concepts on Public Sector, Private Sector and Joint Sector refineries must be made clear to students to minimise the errors.
- Encourage students to prepare short notes with learning of facts being emphasised upon.
- Teach students to reason by relating to basic facts learnt in previous classes. Encourage them to ask why a particular area is important for minerals.
- Make use of maps and pictures to explain the chapter and make learning interesting.
- Stress on reading and understanding the question being an important element before writing the answer.
- Revision tests may be conducted to reinforce concepts.

MARKING SCHEME

Question 7.

- (a) Limestone is needed in the manufacture of iron and steel, cement, fertilizers / Fluxing material in smelting of iron ore / glass manufacturing / manufacture of Chemicals – soda ash, caustic soda, bleaching powder / Use in paper / sugar and aluminium. (Any two points)
- (b) (i) Iron ore – are used in Steel making / Slag for cement / sludge for fertilizer. (Any one use)
(ii) Bauxite- to extract aluminum/ light / used in aircraft/ use in automobiles
- (c) (i) Mathura / Guwahati / Digboi / Haldia / Koyali / Barauni / Kochin Chennai / Panipat / Mumbai / Vishalapatnam
(ii) Jharkhand
(iii) Magnetite
- (d) (i) As port cities are large consumers of oil and its products and by-products/to cut down transport costs as most of the crude oil is imported. (Any one point)
(ii) As petroleum is derived from the decomposition of organic matter under tremendous heat and pressure.
(iii) As it has numerous uses-it can be converted into oil, gas and electricity/ used to generate power/ used as fuel/used as a raw material in numerous industries like iron and steel, fertilizers and cement/ yields valuable by-products like naphtha and phenol.
(Any one point)

Question 8

- (a) Differentiate between a *Rabi* crop and a *Kharif* crop. [2]
- (b) State an important difference between the climatic requirements for growing cotton and jute. [2]
- (c) Give the geographic term for each of the following:
- (i) Cultivation of sugarcane from the root stock of the cane which has been cut.
 - (ii) The residue left behind after the crushing of oilseeds.
 - (iii) The process by which latex is converted into a thick, spongy mass by adding acetic acid or formic acid [3]
- (d) Give a geographic reason for each of the following:
- (i) Tea is cultivated on hill slopes.
 - (ii) The yield per hectare of sugarcane is higher in the Southern states.
 - (iii) Pulses are important food crops. [3]

Examiners' Comments

- (a) Most candidates answered this part correctly. Some got confused between Rabi and Kharif crop seasons and wrote incorrect answers.
- (b) Candidates got confused in the range of temperature and rainfall due to lack of learning facts. Some wrote only soil requirement which was not accepted as the only climatic requirement that was asked.
- (c) (i) Answered correctly by most candidates.
(ii) Most candidates answered correctly.
(iii) The question was not comprehended by a few candidates who wrote "tapping" instead of "coagulation". Spelling errors were noticed in most cases.
- (d) (i) Most candidates answered correctly. A few wrote temperature conditions instead of sloping land that discourages stagnation of water.
(ii) Instead of "yield of sugarcane", some candidates took it as a better condition for sugar industry. However answered correctly by the candidates.
(iii) Most candidates answered correctly. Some did not specify the protein content and just wrote it has high nutritive value. Some candidates related it to soil fertility instead of it being an important food crop with high protein content.

Suggestions for teachers

- Advise students to learn the sowing and harvesting period of the crops thoroughly.
- Tables or charts may be prepared to learn the temperature, rainfall, soil, etc. for a better understanding.
- Application and reasoning based questions must be discussed in class while teaching the lesson.
- Differences between geographic conditions and climatic conditions should be explained with clarity.
- Lay emphasis on understanding and learning of important terms related to the chapter on Agriculture.
- Advise students to read and understand the question before writing the answer to avoid errors.
- A thorough revision must be undertaken to understand concepts clearly.

MARKING SCHEME

Question 8.

(a)

Rabi crop	Kharif crop
Sown in Oct-Nov and harvested in Mar-April / Winter crop	Sown in June and harvested in Oct-Nov/ Summer crop

(b)

Cotton	Jute
Temp: 20 ⁰ C- 32 ⁰ C Rain : 50cm- 120cm	Temp: 21 ⁰ C- 35 ⁰ C Rain : 150cm- 250cm

(c) (i) Ratooning

(ii) Oil cake

(iii) Coagulation

(d) (i) to allow excess water to drain off as tea cannot tolerate stagnant water

(ii) as the mills are closer to the fields hence there is less loss of sucrose content/ use of better quality cane/larger farms, hence mechanized farming is possible/co-operative farming is practiced, ensuring a better yield with better seeds, increased use of better fertilizers, better irrigation method and better crop protection measures / Frost free growing season / tapering shape of peninsular- Sea breeze / Longer crushing season / regur soil responsible for better yield. (Any one point)

(iii) As they are in proteins hence important in vegetarian diet.

Question 9

(a)(i) Why is the cotton textile industry called an agro-based industry?

(ii) Give an important reason for it being more widespread than the jute industry. [2]

(b)(i) State one important point of similarity between the woollen industry and the silk industry.

(ii) Name the state that produces the most woollen and silk products respectively. [2]

(c)(i) State *two* major problems faced by the sugar industry.

(ii) Name *two* by-products of the sugar industry. [3]

(d)(i) State *one* of the main problems of the silk industry.

(ii) Name *two* products of the jute industry, other than rope and gunny bags.

(iii) Why are synthetic fibres popular? [3]

Examiners' Comments

- (a) (i) Most candidates answered correctly.
(ii) Most candidates answered correctly. Some however wrote on jute instead of cotton.
- (b) (i) Most candidates answered incorrectly as it was a general question. In some cases vague answers, such as, - "both are agro based" was observed.
(ii) Many candidates mentioned only one example of a State for both woollen and silk industry. Some candidates mentioned the centres instead of states.
- (c) (i) Answered correctly by most candidates.
(ii) Answered correctly by most candidates. Some mentioned "gur" or "Khandsari" instead of the by-products.
- (d) (i) Answered correctly by most candidates.
(ii) Many candidates did not pay attention to "other than rope and gunny bags" and wrote the same in their answers.
(iii) Answered correctly by most candidates.

Suggestions for teachers

- Textual knowledge is important hence advice students to learn facts comprehensively.
- Instruct students to read the question carefully before making attempts to answer.
- Charts and tables should be prepared for better learning. Make use of pictures and maps in the class as teaching aids for a better understanding of the topic.
- Reasoning questions should be discussed in class for conceptual clarity.
- A thorough revision can help in improving overall performance.

MARKING SCHEME

Question 9.

- (a) (i) As it requires cotton, an agricultural product as its raw material.
(ii) It is more widespread than the jute textile industry because cotton is grown all over the country/ whereas jute is cultivated mainly in the east of India/ there continues to be a great demand for cotton all over the country/hence mills are set up everywhere; whereas the demand for jute is declining as it is facing stiff competition from synthetic material like nylon and plastic/ India being a tropical country more demand for cotton fabrics/ affordable by mass. (Any one point)
- (b) (i) One important point of similarity between the woollen and silk industry is that both use animal products as raw materials/ both are small-scale/cottage industries. (Any one point)
(ii) Woollen industry- Punjab ; Silk Industry- Karnataka
- (c) (i) Problems of the sugar industry: poor quality of cane/out-dated machinery/fluctuating supply of raw material/low profit margins as prices are fixed by the govt./inadequate use of by-products, increasing production costs/mills are located far from fields, leading to loss of sucrose/ the seasonal nature of the industry, increasing production costs/small size of farms/inadequate use of fertilizers. (Any two problems)
(ii) By- products- bagasse, molasses, pressmud. (Any two points)

- (d) (i) Introduction of artificial silk which is more durable / Easy to maintain / crease proof / cheaper to produce /Need for modern power looms for increase in production/ No systematic testing and grading of silk/ changes in price of raw silk affect both growers and the industry. (Any one point)
- (ii) Two products of the jute industry- carpets/ wall- hangings/pot holders fabrics/sandals/hand-bags. (Any two points)
- (iii) As they are cheaper/are more durable /are moth resistant/ not dependent on agriculture for raw materials / Chemicals are easily available. (Any one point)

Question 10

- (a) (i) Why is the iron and steel industry called a basic industry? (ii) Define a mini steel plant. [2]
- (b) With which large scale industry would you identify the following manufacturing centres?
(i) Kanpur
(ii) Rourkela
(iii) Pune
(iv) Mangalore. [2]
- (c) (i) State *two* reasons for the growing importance in the status of petrochemical industries. (ii) Name *two* products of the petroleum industry. [3]
- (d) (i) State *two* conditions necessary for the setting up of a heavy engineering industry. (ii) Name a ship building yard on the east coast and a centre for making electric locomotives. [3]

Examiners' Comments

- (a) (i) Most candidates answered correctly.
(ii) Most candidates answered this part correctly. Few candidates however named the products instead of writing the meaning of the mini steel plant.
- (b) (i) Most candidates answered correctly.
(ii) Answered correctly by most candidates.
(iii) Uncommon or unfamiliar centre and so a little confusion was observed leading to wrong answer.
(iv) Most candidates were unable to write the correct answer.
- (c) (i) Most candidates answered correctly. A few wrote the meaning of petrochemical industry rather than stating its importance.
(ii) Most candidates answered correctly.
- (d) (i) Many candidates wrote the general factors of location such as availability of capital, labour power, etc. rather than writing the specific reason for the location of the heavy engineering industry.
(ii) Some candidates were not clear about the east and west coast and so incorrectly identified the ship building yard. Some candidates wrote only one answer for both industries. In some cases instead of the centre for electric locomotives candidates mentioned the state.

Suggestions for teachers

- Students should be asked to learn the definitions of various categories of industries and also importance of industries.
- Stress on learning the names of important centres for each industry. Students should be taught to differentiate between “Centre” of an industry and “State” in which it is found.
- Students should be guided about the importance of reading the question before attempting it to ensure writing of correct answers.
- Students should be taught to write specific answers rather than giving vague general explanation. This can be done by conducting written tests regularly.
- Make use of a map to explain the location of coasts and cities to minimise the confusion arising due to the east and west coast of India.
- Guide students to prepare a list of important cities and industries and their location. A Quiz can be conducted to make learning interesting.
- Relate the topics to day to day life to make it interesting. Students should be encouraged to prepare notes, charts and tables on their own after a detailed discussion of the topic in class.
- A constant revision must be undertaken.

MARKING SCHEME

Question 10.

- (a) (i) It is called a basic industry because it supplies raw materials to all other industries. / Key product for making of all industries/ used for automobiles/ railways / shipbuilding / heavy machineries / tools / bridges/ roads/ domestic purpose etc
- (ii) A mini steel plant is one which manufactures steel using scrap iron in electric arc furnaces.
- (b) (i) Kanpur- aircraft/sugar/jute/electronic goods/automobiles(scooters) Leather industries. (Any one point)
- (ii) Rourkela- iron and steel/fertilizers. (Any one point)
- (iii) Pune- automobiles/ electronics/ cotton textile. (Any one point)
- (iv) Mangalore- oil refining
- (c) (i) This is because petrochemicals are cheaper/ durable, are not dependent on agricultural raw materials/ hence no fluctuation in production/ cost effective / raw materials easily available. (Any two points)
- (ii) Two products are- Plastic, synthetic rubber, PVC pipes, synthetic fibre, detergents. (Any two points)
- (d) (i) Heavy engineering industries require large amounts of power, labour intensive , High capital/bulky raw materials/ High transport cost. (Any two points)
- (ii) Ship building yard on the east coast- Vishakhapatnam or Kolkata; electric locomotive- Chittaranjan.

Question 11

- (a) (i) Why is the Railways an important means of transport as compared to Airways?
(ii) State *one* economic benefit of the Golden Quadrilateral Project. [2]
- (b) (i) State *one* important difference between an expressway and a highway.
(ii) Name the first expressway constructed in the country.
(iii) State a reason why the Northern Rivers are more suitable for navigation than the Deccan Rivers. [3]
- (c) (i) 'Waste segregation is important'. Give a reason to support your answer.
(ii) Why is nuclear waste harmful?
(iii) Explain briefly how as a student, you can help in the reduction of waste generation. [3]
- (d) (i) What is understood by biodegradable waste?
(ii) State *one* source of gaseous waste. [2]

Examiners' Comments

- (a) (i) Most candidates answered correctly. A few wrote the importance of railways without bringing out its comparison with airways.
- (ii) Candidates wrote the meaning of Golden Quadrilateral and cities connected by it rather than giving its economic benefit. Some candidates wrote on the general benefit instead of its economic benefit (as asked).
- (b) (i) The important difference was not mentioned - only vague and irrelevant answers were written.
- (ii) Most candidates wrote incorrect answers.
- (iii) There were errors observed in expression. Candidates were unable to relate navigation with north and south Indian rivers.
- (c) (i) Instead of "segregation" candidates got confused with "disposal of waste" and answered incorrectly.
- (ii) Most candidates answered correctly. A few wrote on biomedical waste instead of nuclear waste. Some candidates wrote that nuclear waste causes many diseases in general rather than naming any disease.
- (iii) Most candidates wrote general answers rather than emphasising on the three "Rs" (reduce, reuse and recycle).
- (d) (i) Candidates were unable to explain the term 'degradable' and wrote incorrect answers.
- (ii) Most candidates answered correctly.

Suggestions for teachers

- Guide the students to read the question carefully before attempting the same.
- Different means of transport with their advantages and disadvantages should be discussed at length.
- Regular written and oral revision tests can help students comprehend and learn concepts better.
- Students should be guided to write points according to the marks allotted to the question.
- Differences should be written point wise in tabular form.

MARKING SCHEME

Question 11.

- (a) (i) Railways can carry more tonnage and passengers than airways/facilitates easier movement of bulky goods/helped to transfer new ideas/innovations to rural areas/they provide a more comfortable journey especially for elders and infants/ Inexpensive/ contributes to the economic growth and urbanisation, (Any one point)
- (ii) Advantage of the GQ project-Connects major cities and ports/provides an impetus to truck transport/enables the industrial growth of the small towns through which it passes/provides opportunities for the transport of agricultural produce from the hinterland to major cities and ports. (Any one point)
- (b) (i) There are no traffic lights on expressways, unlike on highways/ two- wheelers and three-wheelers are not permitted on expressways / there are no speed-breakers on expressways. (Any one point)
- (ii) 1st Expressway-Ahmedabad-Vadodara Expressway
- (iii) North rivers flow over flat terrain, whereas Deccan rivers flow over uneven land, hence presence of cataracts and rapids which hinder navigation/northern rivers are perennial, whereas Deccan rivers are seasonal. (Any one point)
- (c) (i) Waste should be segregated to make for easier waste management/ to help identify the best method of waste disposal. (Any one point)

- (ii) Nuclear waste is hazardous as it can remain radio-active for thousands of years/ if it is not disposed off properly it continues to be hazardous/it can enter the human body food and water/ the damage it causes is irreparable/ it affects future generations. (Any one point)
- (iii) Learn to reduce consumption of goods/learn to recycle and reuse. (Any one point)
- (d) (i) Biodegradable waste is waste that can be easily broken down by natural processes of decomposition.
- (ii) Exhaust from vehicles/burning of fossil fuels in factories and thermal power plants/burning of wheat or rice straw/methane from cattle sheds. (Any one point)

Topics/Concepts found Difficult/Confusing

- **On Survey Map:**

- Slope of the land
- Reasons for scanty rainfall
- Calculating difference in height
- Identification of dry tank with embankment
- Area calculation.

- **On Map of India:**

- Position of Nilgiri
- Malabar waste
- Andaman Sea
- Direction of temperate cyclone
- Digboi
- Malwa plateau

- Explanation of reasoning questions.
- Difference between rain that occur from June to September and that from December to February in North India.
- Reason for Kerala having longest rainy season.
- Annual rainfall totalling.
- Difference between rill and gully erosion.
- Fossil fuel - not clear of its meaning.
- Coal as a versatile mineral.
- By-products of sugar industry.
- Economic benefit of Golden Quadrilateral.
- Sources of gaseous waste.

- Climatic requirement for cotton and jute.
- Mineral based industry was not attempted by many.
- Pedogenesis – its meaning.
- Scented tree found in high altitude.
- Modern method of irrigation.
- Largest oil refinery in public sector.
- Waste segregation and reduction.
- Expressway and highway – is difference.

Suggestions for students

- Read the question carefully before attempting to avoid any error while answering the same.
- Manage the time well. Do not spend more than 25 minutes for questions on the toposheet as theory questions and map question is equally important and requires concentration while answering.
- Prepare your own notes, chart, table and other study material after the discussion of the topic in class.
- Do not hesitate to ask “why” as it is important to clear doubts (especially to deal with reasoning questions).
- While differences in tabular form – point wise.
- Number of points should be in accordance with number of marks allotted.
- Practice answering questions on map reading to develop analytical skills.
- Read the scope of syllabus carefully and avoid selective study.
- Solve previous year’s Question Papers, be regular to school and do not miss any revision tests.
- Write answers point wise rather than stating vague generalities.
- Learn the text and also understand the matter to develop a reasoning ability.
- Do not rush to write answers in order to attempt extra questions.
- Work neatly and write in legible handwriting.
- Learn and revise each concept thoroughly before an examination to gain self-confidence.