Summer Valley School, Dehradun

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ENGLISH LANGUAGE: Assignment 3

Fill in the blanks with suitable Prepositions:

1) I am tired _____ walking.
2) They live _____ the same roof.
3) He spoke _____ me
4) The work was done _____ haste.
5) The river flows _____ the bridge.
6) He is afraid _____ dogs.
7) I am fond _____ music.
8) He died _____ his country
9) I have known him _____ a long time.
10) I shall do it_____ pleasure.
11) God is good _____ me.
12) I am sorry _____ what I have done.
13) I bought it _____ fifteen rupees.
14) It has been raining _____ morning.
15) We suffered _____ your neglect.
16) This is a matter _____ little importance.
17) There is nothing new _____ the sun.
18) I have been working hard _____ four days.
19) I have been watching you _____ the last few days.
20) I bought this book _____ ten rupees.

Assignment 4

Join the following sentences to make one complete sentence without using and, butor so.

1) Wise men love truth. Fools shun it.
2) Life is short lived. We shall live it.
3) We lost the game. The team was careless.
4) The sun rose. It filled the sky with light.
5) He was injured in an accident. He went to the hospital.
6) Forests check soil erosion. They also give us timber.
7) He was ill. He could not go to office.
8) Mosquitoes spread malaria. We must destroy them.
9) He invited her to the party. She did not come.
10) The brave face challenges. Cowards flee.

Note: To be done in the fair register.

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HINDI:

सरस हिंदी व्याकरण-

1.पृष्ठ 265 अभ्यास 2 (1 से 10) वलोमशब्द

2.पृष्ठ 224 अभ्यास 2 (1 से 10) भाववाचक संज्ञा

3.पृष्ठ 278 अभ्यास 2 (1 से 10) एक शब्द

(समस्त कार्य language notebook में करें **)**

HOME SCIENCE:

COMPLETE THE RECIPE FILE

GEOGRAPHY:

1. Study the printed Maps, In the map booklet:
   A) Practise MAP 3: Label and color all the mountains
   B) Practise MAP 4:label and color all the plains and plateaus
   2. Copy the attached solved questions in fair notebook and learn.

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PHYSICS:

Qs 1 What is a lens?

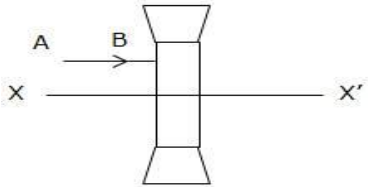
Qs 2 State difference between a convex and a concave lens in their (a) appearance, and (b) action on the incident light.

Qs 3A ray of light incident on a point on the principal axis of a convex lens, passes undeviated through the lens.

(a) What special name is given to this point on the principal axis?

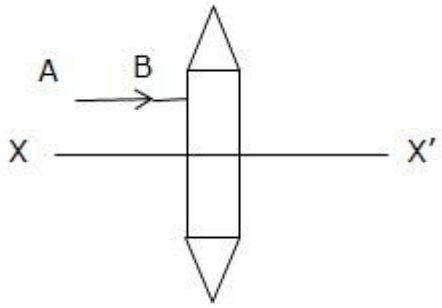
(b) Draw a labelled diagram to support answer in part(a).

Qs 4The diagram below shows a lens as a combination of a glass block and two prisms.



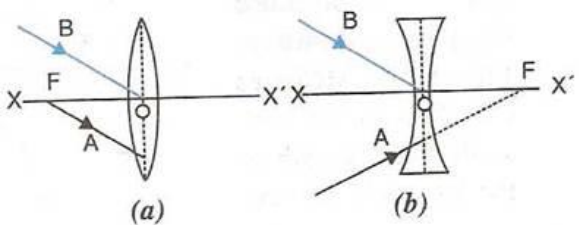
(i) Name the lens formed by the combination.
(ii) What is the line XX' called?
(iii) Complete the path of the incident ray AB after passing through the lens.
(iv)The final emergent ray will either meet XX' at a point or appear to come from a point on XX'. Label the point as F. What is this point called?

Qs 5 The diagram below shows a lens as a combination of a glass block and two prisms.



(i)Name the lens formed by the combination.
(ii)What is the line XX' called?
(iii)Complete the ray diagram and show the path of the incident ray AB after passing through the lens.
(iv)The final emergent ray will either meet XX' at a point or appear to come from a point on XX'. Label the point as F. What is this point called?

Qs 6 In the diagrams below, XX' represents the principal axis, O the optical centre and F the focus of the lens. Complete the path of rays A and B as they emerge out of the lens.



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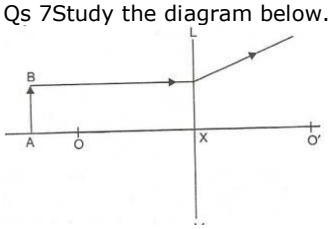
PHYSICS:

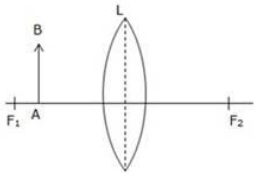
Qs 7Study the diagram below.



(i)Name the lens LL'.
(ii)What are the points O, O' called?
(iii)Complete the diagram to from the image of the object AB.
(iv)State three characteristics of the image.

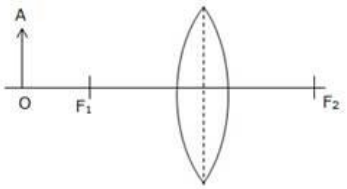
Qs 8The following diagram in Fig. shows an object AB and a converging lens L with foci F_1 and F_2.

(a) Draw two rays from the object AB and complete the diagram to locate the position of the image CD. Also mark on the diagram the position of eye from where the image can be viewed.



(b) State three characteristics of the image in relation to the object.

Qs9The diagram given below in fig. shows the position of an object OA in relation to a converging lens whose foci are at F_1 and F_2.



i. Draw two rays to locate the position of the image
ii. State the position of image with reference to the lens
iii. Describe the three characteristics of the image.
iv. Describe how the distance of the image from the lens and the size of the image change as the object move towards F_1.

Qs 10 A lens forms an inverted image of an object.
(a) Name the kind of lens.
(b) State the nature of the image whether real or virtual?

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CHEMISTRY:

Q1
X and Y are two elements with atomic number 16 and 20 respectively. Without identifying them answer the following parts.

(1). Predict the group of element X.
(2). Predict the group of element Y.
(3). What is the valency of X in terms of hydrogen?
(4).What is the valency of Y in terms of oxygen?
(5). Write the formula of the hydride of X.
(6). Write the formula of the phosphate of Y.
(7). Whether the chloride of Y is soluble or insoluble in water.
(8).what will be the formula of compound ,if X and Y react together?

Q2.
Name the following elements which have :
(1). Highest ionisation energy.
(2). Lowest ionisation energy.
(3).Highest atomic size.
(4). Lowest atomic size.
(5). Highest electron affinity.
(6). Lowest electron affinity.
(7). Highest electronegativity.
(8). Lowest electronegativity.

Q3.
(a). An element Z has atomic number 16.Answer the following questions on Z:

(1). State the period and group to which Z belongs .
(2). Is Z a metal or a non-metal?
(3). State the formula between Zand hydrogen.
(4). What kind of compound is this?

(b). M is a metal above hydrogen in the activity series and its oxide has the formula M2O. This oxide when dissolved in water forms the corresponding hydroxide which is good conductor of electricity.
In the above context answer the following :

(1). What kind of combination exists between M and O ?
(2). How many electrons are there in the outermost shell of M ?
(3). Name the group to which M belongs.
(4). Name the product at the anode.

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CHEMISTRY:

Q4.
Parts (1) to (5) refer to changes in the properties of elements on moving from left to right across a period of the periodic table. For each property choose the letter corresponding to the correct answer from the choices (a) ,(b), (c) and (d).
(1) The metallic character of the elements:
(a). decreases (b). Increases
(c). remains the same. (d) Depends on the period.

(2). The electronegativity

(a). depends on the number of valence electrons .
(b). decreases
(c). remains the same.
(d). Increases

(3). The ionization potential
(a) Goes up and down
(b). decreases
(c). Increases
(d). remains the same

(4). The atomic size
(a). decreases
(b). increases.
(c). remains the same
(d). sometimes increases and sometimes decreases

Q5
Very short answer type questions
1. How does atomic size vary on moving down a group?
2. How do atomic radii vary across a period?
3. How does electro negativity of elements change on moving from left to right in a period?
4. How does metallic character of elements vary on moving down a group?
5. What happens to the metallic character of elements when one moves from left to right in a period?
6. Which property is mainly responsible for imparting metallic character to an element?
7. When does non-metallic character of elements increase across a period or down a group?
8. Which factor does decide the acidic or basic nature ot the oxide of an element?

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BIOLOGY:

NOTE FOR CLASS-X STUDENTS

1. The following assignment is from UNIT 6: POLLUTION from your prescribed text book as the chapter POLLUTION from the above mentioned unit is a general concept as most of you have studied in their lower classes and are also aware of it in general as well.
2. The following work is to be done in your class Xth notebook and it will be checked as soon
3. worksheet will be provided separately (next week)

CHAPTER-16 POLLUTION- A RISING ENVIRONMENTAL PROBLEM

1) Define the following
   - **a.** Oil spills
   - **b.** Thermal pollution
   - **c.** Sanitary landfills
   - **d.** Radiation.
   - **e.** Noise pollution
2) Give the examples (any three) in reference to soil pollution for the following
   - **a.** Industrial waste
   - **b.** Biomedical waste
   - **c.** Pesticide
3) List all the harmful effects of noise pollution
4) **Following are the certain short notes in simple language with keywords learn them and then write it in your notebook. (Important for board examination 2021)**
   - Many industries (power plants/oil refineries/nuclear power stations) use water for cooling their machinery, this hot water is very hot and harmful to nearby streams, river and lakes causing water warming which kills aquatic animals
   - Chemical fertilizers (nitrates/phosphorus/ammonium salts although good as they are used to increase crop yield but causes water pollution as if these are washed off with rain water and reaches to water bodies causing faster growth of bacteria which consumes lots of oxygen in water resulting in deaths of fish and other water animals.
   - Biomedical wastes such as needles/syringes/dirty dressing/discarded medicinal powders and tablets and biological research materials if carelessly disposed off and if reaches to soil may cause harm to soil organisms and humans indirectly.
   - Pesticides such as DDT is used in agriculture to destroy pests which are harmful to crops but excessive use of DDT destroys soil structure, kills micro-organisms which decreases soil fertility as soil micro-organisms helps in recycling of nutrients in the soil. (**very important for boards)**
   - Chief radiant pollutant is **Iodine 131**which causes thyroid cancer(**very important for boards)**
   - A radioactive waste **Cobalt 60**which causes serious skin burns (**very important for boards)**

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BIOLOGY: WEEKLY WORKSHEET-2 (FOR ASSIGNMENT PART II)

NOTE: THE WORKSHEET IS FOR THE WEEKLY PLAN (PART II) GIVEN BEFORE, THIS WORKSHEET IS TO BE SOLVED IN THE SAME SHEET. WRITE YOUR NAME, CLASS AND SECTION ON THE TOP RIGHT HAND SIDE OF THIS SHEET. THE SHEET WILL BE CHECKED AS SOON AS THE SCHOOL REOPENS.

Q1. Name the following

i. A Non-degradable pesticide
ii. A radioactive waste
iii. A radiation pollutant
iv. An unpleasant undesirable sound interfering with one's hearing and concentration.
v. Form of energy consisting of high energy particles

Q2. Below are the false statements correct the following statement by changing the underlined word.

i. Fly ash and metallic ash are examples of urban-domestic waste
ii. Biomedical waste may consist of biodegradable waste
iii. Soil pollution is largely localised.
iv. Thermal power plants causes soil pollution
v. One of the source of oil spills is sewage

Q3. Expand- DDT.

Q4. Give reasons for the following (refer the notes provided in the weekly plan part II for your help)

i. Pesticide such as DDT used in agriculture for killing pests is harmful to soil
ii. Chemical fertilisers used to increase crop yield if used in excess is harmful to soil
iii. Biomedical wastes cause soil pollution.

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HISTORY:

Answer the following questions in short.

1. What was the system of Subsidiary Alliance?

2. Name any two Indian States brought under British control by means of Subsidiary Alliance.

3. Name the policy of annexation of Lord Dalhousie.

4. Who was Nana Saheb?

5. Name two laws that interfered with the religion

6. When and on what ground was Awadh annexed?

7. Which system passed in 1973, made zamindars the absolute owners of their estates?

8. Which act, passed in 1856, was resented by the recurite of Bengal army?

9. Name the rifle, introduced by the British, which became a cause of the outbreak of the Revolt.

10. Which War exposed the weakness of the British?

COMPUTER:

Q1. What is an increment and decrement operators?

Q2. Differentiate between = and == operators.

Q3. Define if else statement with syntax.

Q4. What kind of program elements are the following?

13, 'a', 4.5985, "a", main( )

Q5. Write an equivalent Java expression for the following expressions:

1. a+b >= b x a + a

2. ut + ½ ft2

Q6. a. What is the value of x1 if x= 5?

X1 = ++x – x++ + --x

b. Rewrite the following using ternary operator:

```
if(bill> 10000)
discount = bill * 10.0/100;
else
discount = bill * 5.0/100;
```

Type equation here.

Type equation here.

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GEORAPHY: Noted in their fair registers.

SELF-STUDY

ICSE BOARD EXAMINATION QUESTIONS (SOLVED)

Q.1. (a) Name two states in India where Regur soil is formed. In what ways does Regur soil help agriculture? [2011]

Ans. Regur soils are found in the Deccan trap, comprising the greater part of Maharashtra and Gujarat, Madhya Pradesh (any two).

This soil has the property of holding moisture which is released to the plants during the dry period which is extremely useful in the unirrigated areas.

(b) Mention two main characteristics of Laterite soil. [2011]

Ans. These soils are porous and friable and not retentive of moisture.

— They are poor in lime, nitrogen and humus.

(c) State the differences between Alluvial soils found in the lower courses and the upper courses of rivers. [2011]

Ans. Upper course :

— They are coarse, porous and not so fertile.

Lower course :

— They are fine grained and very fertile.

(d) Name two important agents of erosion. For each, state one method of controlling the erosion caused. [2011]

Ans. Two important agents of erosion are running water and wind.

—To prevent erosion by running water, dams and barrages can be built which check the speed of water down the slopes. Afforestation along hill slopes also check speed of water.

—To prevent erosion by wind, indiscriminate felling of trees must be stopped and area under plantation and forests must be increased.

Q.2. (a) State two methods of controlling the erosion of soil caused by running water. [2012]

(b) Mention two differences in the alluvial soil of the northern plains and the alluvial soil on the coastal plains of India.

(c) Mention any three characteristics of black soil which makes the soil fertile.

(d) Give geographical reasons for the following :

(i) Laterite soil is not suitable for cultivation

(ii) Red soil is red in colour

(iii) *Khadar* soils are preferred to Bangar soils.

Ans. (a) Soil erosion caused by running water can be controlled by

(i) Construction of bunds

(ii) Terrace farming

(iii) Plugging gullies (any two)

(iv) Deepening of river beds and widening river beds.

(b) (i) Alluvial soil on the coasts is darker in colour and more clayey.

(ii) Alluvial soils of Northern plains is porous and fertile while on the coast it is non-porous.

(c) The three characteristics of black soil are —

(i) retains moisture

(ii) self ploughing

(iii) rich in lime, potash, iron, calcium and alumina.

(d) (i) due to intensive leaching laterite soils lack in fertility.

(ii) red soils are red in colour due to presence of iron oxide.

(iii) Khadar soils are never alluvial and are preferred to Bangar because they are very fertile. They are found in the lower valley areas and replenished every year by floods.

Q.3. (a) Differentiate between Transported soil and In Situ soil, quoting a suitable example for each. [2013]

Ans.

Transported Soil	Situ Soil
(i) These soils originate from the transported alluvium brought by the rivers.	These soils are formed by weathering of Deccan Trap, which is formed by solidification of lava.
(ii) These soils are coarest in the uppersection of the valley, medium in the middle and the finest on the delta region.	These soils retain moisture and become sticky when wet and dry, very useful for the crops.
(iii) They are mostly light to dark in colour depending on new or old alluvium.	Black soils vary in colour from deep black to chestnut brown, medium black or mixture of red and black.
(iv) Areas are vast track of river of alluvium of Satluj, Ganga and Brahmaputra.	Areas are : Found in situ i.e. largely found in the regions of their origin and these are vastly confined to Deccan Plateau.

(b) State two differences between Bhangar and Khadar. [2013]

Ans. Differences between :

Bhangar	Khadar
(i) These consist of older alluvium of clayey composition and are dark in colour.	These are newer alluvium of sandy pale brown composition.
(ii) They are found 30 m above flood level of the rivers.	They are found in the lower areas of valley bottom which are mostly flooded.

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(c) Name the process by which Laterite soil is formed. Mention one disadvantage of this soil. [2013]

Ans. Laterite soils are formed under conditions of high temperature and heavy rainfall with alternate wet and dry periods. Its formation takes place strictly under monsoon conditions. The heavy rainfall washes away the top soil containing silica. This process is called leaching. There are shallow, acidic and less fertile soil.

One disadvantage is that due to intensive leaching, laterite soil lack in fertility. These soils are poor in nitrogen and lime, but rich in iron.

(d) With reference to Red soils in India, answer the following questions : [2013]

(i) Name two states where it is found.

(ii) State two advantages of this type of soil.

(iii) Mention two important crops grown in this soil.

Ans. Red soils :

(i) States — Bihar and West Bengal

(ii) Advantages are

(a) They are rich in potash and become fertile with proper use of fertilizers and irrigation.

(b) They are good for growing wheat, rice, sugarcane, pulses.

(iii) Millets and Pulses

Q.4. (a) State any two methods of controlling soil erosion. [2014]

Ans. Constructing dams, barrages and plugging gullies, introducing better methods of cultivation, use of fertilizers, rotation of crops, afforestation, Contour-bunding, banning of shifting agriculture, Cover Gropping, levelling the land, Leguminous Groups.

(b) Mention two differences between alluvial soil and red soil. [2014]

Ans. Any two of the following :

Alluvial soil	Red soil
Silt and sediments brought down by rivers–transported soil, e.g., Situ.	Formed by weathering of metamorphic rocks in Situ.
Colour changes from yellow to brown.	Red because of iron oxides
Loamy	Sandy, Friable, Coarse
Fertile	Infertile, responds to fertilizers.
Rich in potash, lime and Humus.	Poor in lime, humus, nitrogen. contains soluble salts.
Varying in size from granular to fine texture	Coarse in texture. It is not moisture retentive.

(c) Give a geographical reason for : [2014]

(i) different regions in India having different kinds of soil.

(ii) black soil being suitable for growth of cotton.

(iii) the conservation of soil as a natural resource.

Ans. Different regions in India have different kinds of soil :

(i) Because of the different rocks which get weathered to form soil and the different agents of erosion, minerals present, differences in temperature and rainfall, organic substances, parent materials, climate, relief, drainage, living organism i.e. plants and animals, time etc.

(ii) Black soil is suitable for growth of cotton because it is moisture retentive, has self ploughing qualities and is rich in lime, iron, potash, calcium, magnesium, alumina, carbonates or any other minerals given in textbook. It is claying in nature.

(iii) Soil is a natural resource which must be conserved or else the land becomes barren and cannot be cultivated, food crops will have to be imported and the agro-based industries will suffer. Some kinds of soil are also required for construction purposes. It takes very long for an inch of top soil to be formed. It supports plants and animals, prosperity of agriculture and industries. (any one point which makes sense.)

(d) Name the soil which : [2014]

(i) is good for the cultivation of cashew nuts.

Ans. Laterite soil/red soil.

(ii) covers almost all of West Bengal

Ans. Alluvial soil.

(iii) is a result of leaching.

Ans. Laterite soil.

Q.5. (a) State the characteristic of each of the soils named below that makes them most suitable for crop cultivation : [2015]

(i) Black soil. (ii) Red soil.

Ans. (a) (i) Black soil : Moisture Retentive / self – Ploughing qualities / rich in lime, potash, iron, calcium, magnesium, aluminia carbonates, / deep and fine grained / clayey / sticky when wet, cracks when dry / very fertile / non porous. (Any one point.)

(ii) Red soil : Rich in iron / porous / friable / does not get water logged / responds to manures or fertilizers / rich in potash / Not moisture retentive / responds to irrigation / ariated soil / porous / loose.

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(b) State the geographic term for each of the following processes : [2015]

(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.

Ans. (b) (i) Leaching / Desilication

(ii) Gully -erosion

(c) Define the following :

(i) Pedogenesis.

(ii) Humus.

(iii) Bhangar.

Ans. (c) (i) Pedogenesis : The process of soil formation

(ii) Humus : The decayed organic matter that helps make soil fertile – decomposition of organic matter.

(iii) Bhangar : The older, less fertile Alluvial soil / upper region / 30 metres above the sea level at river terrace / 30 m above flood level of the rivers / Kankar (lime nodules) Calcareous clay / porous.

(d) Give a geographic reason for each of the following : [2015]

(i) Alluvial soil is extremely fertile.

(ii) Need for Soil conservation.

(iii) Reafforestation should be practised extensively.

Ans. (d) (i)
- as it contains minerals like lime, potash, iron and humus,
- it is loamy,
- it has sufficient depth,
- it is renewed annually / replenished by flood.
- it is transported soil which brings along lots of minerals / Alluvium / silt.
- it is non-porous / moisture or water retentive if all the minerals are present – (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.
- Reclamation of Ravine lands / bad lands,
- India is Agricultural country. (any one point)

(iii)
- As it helps prevent soil erosion,
- it holds the soil together,
- it helps maintain the ecological balance.
- it checks global warming,
- it reduces severity of drought.
- it maintains water table. (any one point)

Q.6. **(a) What is soil erosion? Mention two steps that could be taken to prevent soil erosion.** [2016]

Ans. (i) Removal of destruction of top soil by the agents like winds and running water is called soil erosion.

(ii) Two steps are Terrace farming/Contour ploughing/ Crop rotation/ban on shifting cultivation/practice of strip–cropping/cover plantation/construction of check-dam/Barrages/check and control over grazing/plugging of gullies/Multiple cropping Double cropping/Cover plantation/Afforestation/ Reafforestation/planting shelter bells.

(b) Mention two similarities between red soil and laterite soil. [2016]

Ans. (i) Both are red in colour because of the presence of iron-oxide.

(ii) Both are infertile soils.

(iii) Both are friable/porous/coarse in nature.

(iv) Both are not moisture retentive/both are poor in organic matter/lime/nitrogen.

(v) Acidic in nature.

(vi) Insitu soil/Residual soil.

(c) Give a geographical reason for each of the following : [2016]

(i) Alluvial soil differs in texture.

(ii) Black soil does not get leached.

(iii) Khadar is more fertile than bhangar.

Ans. (i) Alluvial soil is coarse in the upper valley of the rivers because the eroded matter is carried away by the fast flowing river.

Medium in middle course; but in the lower course, the river reduces its speed and the soil particles become finer due to attrition or because the load itself gets eroded.

(ii) Black soil does not get leached because it is clayed and sticky and moisture retentive/non porous and therefore the rain cannot wash out the silicates.

(iii) Khadar is the newer alluvium which keeps getting replenished by the river bringing down more eroded material.

(d) Define the following : [2016]

(i) Sheet erosion

(ii) Soil conservation

(iii) Insitu soil

Summer Valley School, Dehradun

Address :18, TegBahadur Road, Dehradun (UK) e-mail: summervalleyschool@gmail.com **Tel :** 0135-2673383, 2678356

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GEOGRAPHY: Noted in their fair registers.

Ans. (i) Sheet erosion is the slow removal of a thin/top-layer of soil by rainwater washing it away-from the gentle slopes.

(ii) Soil conservation refers to the efforts made to prevent soil from getting eroded.

(iii) Insitu means the soil which is found where it is formed/to develop in one area without any movement/it refers to residual soil.

Q.7. (a) Mention two differences between Alluvial Soil and Black Cotton Soil. [2017]

Ans. Two differences between Alluvial Soil and Black Soil

Alluvial Soil	Black Soil
• Transported soil	• Black cotton soil
• Exsitu	• Residual soil Cotton
• Lighter in colour	• Insitu
• Rich in Humus	• Dark in colour
• Less moisture retentive	• Deficient in humus
• Deposition by rivers	• Moisture retentive
• Rich in lime potash & humus.	• Disintegration of Lava rocks.
	• Rich in lime potash, iron magnesium & alumin.

(b) Name an area in India in which each of the following processes take place: [2017]

(i) Sheet erosion

(ii) Gully erosion

Ans. (i) • Sheet Erosion – Flood plains of Ganga, Brahmaputra, Damodar

• Himalayan slopes.

• North-Eastern slopes.

• Hill slopes – regions of heavy rain.

(ii) Gully Erosion – Chambal valley, Sabarmati river, Mahi river.

(c) What is soil conservation? State a method of soil conservation in the : [2017]

(i) Arid and Semi-Arid region.

(ii) River valleys prone to flood.

Ans. Soil conservation is an effort made by man to prevent soil erosion and to retain its fertility.

• Method of Conservation –

(i) in Arid and semi-arid region–planting of shelter belts/afforestation/re-afforestation.

(ii) in river valley prone to flood–construction of dams and barrages/check dams afforestation/re-afforestation.

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(d) Name the soil which : [2017]

(i) is good for cultivation of sugarcane

(ii) is acidic in nature

(iii) occurs exsitu

Ans. (i) **The soil good for cultivation of sugarcane** – Alluvial soil, black soil/regur soil

(ii) **Soil which is acidic in nature** – Laterite soil/Red soil.

(iii) Occurs exsitu – Alluvial soil.

Q.8. (a) (i) Why does alluvial soil differ in texture. [2018]

(ii) State two cash crops that grow well in alluvial soil.

Ans. (i) It varies in texture as it is deposited by rivers only deposited/transported soil/coarse material is deposited in upper course, medium in middle course and fine texture in lower course.

(ii) Sugarcane/Jute/Cotton/Tobacco/Oilseed only cash crops.

(b) With reference to black soil answer the following.

(i) Name one important crop which grows in this soil.

(ii) Give one chemical property of this soil.

Ans. (i) Important crop grown in black soil is cotton/ sugarcane/tobacco/cereal/oil seeds/jowar/wheat/ gram.

(ii) **Chemical Property** – Rich in lime, potash, calcium and magnesium carbonate, iron, non acidic, alkaline, poor in phosphorous, nitrogen and organic matter.

(c) Give one geographical reason for each of the following:

(i) Red soil requires irrigation.

(ii) Afforestation prevents soil from getting crowded.

(iii) Laterite soil is red in colour.

Ans. (i) As it does not retain moisture since it is highly porous/friable/coarse.

(ii) The roots of the trees hold the soil together.

(iii) Rich in iron-oxide.

(d) (i) What is soil erosion?

(ii) Mention two causes of oil erosion in India.

Ans. (i) Removal of top-layer of the soil and destruction of soil, is called soil-erosion.

(ii) Causes – Deforestation/poor farming technique/ overgrazing/faulty farming/all human activities such as slash and burn/shifting agriculture, mining/ quarrying heavy rainfall, running water, winds and construction work etc.

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MATHS:

CO-ORDINATE GEOMETRY - WORKSHEET 2

Q1 A is a point on y-axis whose ordinate is 3 and B is a point on x-axis where absicca is 4. Find the length of the line segment AB.
Q2 Find the points on the x-axis which are at a distance of 5 units from the point (5, -4).
Q3 Find the points on the y-axis which are at a distance of 10 units from the point (8, 8)
Q4 Q(0, 1) is equidistant from P(5, -3) and R(x, 6). Find the values of x.
Q5 Using distance formula show that the points A(3, 1), B(6, 4) and C(8, 6) are collinear.

TRIGNOMETRY

Q6 If A is an acute angle and sinA = $\frac{3}{5}$ find the value of:

i) cos A
ii) tan A
iii) sec A
iv) cot A

Q7 If A is an acute angle and 13 sinA =5, then evaluate $\frac{5sinA-2COSA}{tanA}$

Q8 If $5cos\theta - 12sin\theta = 0$, find the value of $\frac{sin\theta + cos\theta}{2cos\theta - sin\theta}$

Q9 Prove that $(sin\theta + cos\theta)^2 + (sin\theta - cos\theta)^2 = 2$

Q10 Simplify $\sqrt{\frac{1-\sin^2\theta}{1-\cos^2\theta}}$