B, Mukherjee
2.12.19

ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION

FOR GOD AND COUNTRY

Third Term Test – 2019

Sub: Geography **Class: 9** **F. M. 75**

Duration: 2:30 hr **Date: 29.11.2019**

GROUP – A

1. Choose the correct answer and complete the sentences. 13

i. The shape of (apple/**pear**/guava/plum) is close to the oblate spheroid shape.
ii. The year (2002/2003/**2004**/2005) was a leap year.
iii. Cyclonic storms are called Typhoon in (**Japan**/ Australia/Mexico/Philippines).
iv. Black forest of Germany is a (fold/**block**/volcanic/residual) mountain.
v. (**Graphite**/Anthracite/Bituminous/Lignite) has 99% carbon content.
vi. (Mahananda/**Jaldhaka**/Rangit/Sankosh) is the longest river of Jalpaiguri district.
vii. Rocks get rusted because of (carbonation/solution/**oxidation**/hydration).
viii. As per 2011 census, area wise West Bengal stands in the (11^{th}/12^{th}/13^{th}/**14^{th}**) position in India.
ix. Vale of Kashmir is an example of (**lacustrine**/till/loess/flood) plain.
x. (Geological/**Cadestral**/Statistical/Economical) map is also called a 'mouza map'.
xi. (Constant/fund/mobile/**renewable**) resources are those which do not exhaust even after use.
xii. Gorumara National Park is in (Darjeeling/**Jalpaiguri**/Alipurduar/Coochbihar).
xiii. R.F. is the abbreviation for (relative/reduced/**representative**/recurring) fraction.

GROUP – B

2. State whether the following statements are "True" or "False". 4

i. Deforestation is a natural disaster. **False**
ii. Rift valleys are also called grabens. **True**
iii. Bauxite is a metallic mineral. **True**
iv. The word 'equinox' means equal days. **False**

3. Fill in the blanks with suitable words. 5

i. The eastern part of the Rarh plain is called **Bagri plain**.
ii. The average distance between the sun and the earth is **152 million km**.
iii. Kolaghat has a **thermal** power plant.
iv. **Petroleum** is referred to as 'liquid gold'.
v. The word **Geoid** means 'earth like form'.

4. Match the words of Column A with that of Column B 5

"A"	"B"
Jaldapara National Park	**Jalpaiguri**
Bishnupur Terecotta temples	**Bankura**
Adina Deer Park	**Maldah**
Nizamat Imambara	**Murshidabad**
Mayapur ISKCON temple	**Nadia**

5. Answer in one or two words. 4

i. Name the storm which occurs during the autumn season in Bengal.
Ans: Ashwiner Jhar
ii. Give the meaning of the word 'peneplain'. **Ans: Almost a plain**
iii. Name the hydro electric plant of Bhutan. **Ans: Chukha**
iv. Give the other name for 'shifting cultivation'. **Ans: Jhum cultivation**

GROUP - C

6. Answer the following in short. 2 x 5=10

i. What are monadnocks?

Ans: Some typical hard and resistant hillocks found in the peneplains.

OR

What is an asymmetrical fold?

Ans: When one limb of the fold is steeper than the other.

ii. Define International Date Line.

Ans: An imaginary line on and around 180°meridianfrom which each new date starts and ends.

OR

Define Circle of illumination.

Ans: The imaginary line that separates the lighted half from the darkened half.

iii. Define scale of a map.

Ans: The ratio between the distance of two points on a map and their corresponding distance on the ground.

OR

What is a legend of a map?

Ans: An explanatory table or list of symbols, colours and letters appearing on a map.

iv. Define an outwash plain.

Ans: A plain formed of sediments, sand and gravel deposited by melt water at the terminal end of the glacier.

OR

Define a piedmont plateau.

Ans: A plateau formed at a foothill region.

v. Define ground blizzard.

Ans: A weather condition where loose snow is lifted from the ground and flown by strong winds.

OR

What are tsunamis?

Ans: Tremendous sea waves originating because of seaquakes and ocean floor shaking.

GROUP - D

7. Give brief explanatory answers. 3 x 3=9

i. Describe the formation of lava plateaus. Give example. **Ans:** Lava plateaus are formed by highly fluid basaltic Lava during numerous successive elections. The Lava pours out through numerous vents without violent explosions. Successive and extensive Lava flow cover the original landscape. The Lava cools and solidifies to form a lava plateau. Pyroclastic volcanic plateaus are produced due to solidification of massive pyroclastic flow on the surface of the land. The plateau of Maharashtra situated in North West Deccan Plateau in India, the Snake-Columbia basin in USA and the plateaus of Somalia and Ethiopia in East Africa are examples of volcanic plateau.

OR

Calculate the time and date at 97°30'W when the IST is 11 am, 1.3.2016. **Ans:**
IST is 82°30' E
Latitude difference: 97°30' + 82°30' = 180°
Therefore time difference: 180° x 4 min= 720 min= 12 hours
Since 97°30' W is on the left of IST time is to be subtracted from IST; therefore time at the place in (11 AM – 12 hours) = 11PM the previous day, i.e., 29.02.2016 (2016 is a Leap Year)

ii. Describe the sandy coastal plain of West Bengal. **Ans:** The South-eastern part of the Medinipur district, in between the mouths of Hugli river and subarnarekha river lies the Sandy coastal plain. The plain region is formed by sand dunes, sandy beaches, salt creaks and marshes. There are two dunes that lie parallel to the coast. The dunes are about 10 to 15 metre in elevation. The Contai or Kanthi dune is the older dune. The Digha dune is formed recently and presents a wide beach.

OR

Describe the littoral forests of West Bengal. **Ans:** On the deltas near river mouth, littoral forest grows. Most of the trees of this region belong to the mangrove family. Mangrove

forests have salt tolerant halophytic (underwater) plants. From the trunks and branches of the trees, long arching roots are developed which anchor the trees. That please of the forest is Sundari after which the region gets its name. Other important trees are hogla, garan, gewa, keora and dhondal. Large areas of the Sundarbans have been cleared in recent years for habitation.

iii. Describe the different types of landslide **Ans:**

a. Falls: Abrupt free fall movements of materials detached from a steep slope.
b. Flows: Gradual and continuous mass movement of earth in materials along a slip surface.
c. Creep: Very slow but steady downslope movement of soil or Rock.

Although landslides are primarily associated with mountainous regions, and also occur in low areas. In low areas, landslides occur as cut-and-fill failures (excavation for road and building), river bluff failures (bringing down of banks of river Ganga) and a wide variety of slope failures associated with quarries and open pit mines.

OR

Define centre and epicenter of earthquake. **Ans:** The point where slip or rupture of plates takes place is called the focus or centre of the earthquake. Level of focus may be either near the surface of the earth or deep below it. The corresponding point on the surface of the earth directly above the focus is called as the epicenter of the earthquake.

GROUP – E

8. Answer the questions in detail. 5 x 3=15

i. Explain the origin of deltaic plain and depict its characteristics. **Ans:** The plains which are formed by the deposition of rivers near their mouths on their deltaic regions, deltaic Plains. When a river enters the sea, it becomes very slow. It deposits all the load on its mouth. These deposit choke the river and force it to divide flow through several smaller channels call distributaries. The land formed around these distributaries form islands or mud banks. Search islands together buildup are triangular shaped land called Delta on the mouth of a river. It resembles in shape of Greek letter Delta after which it is named. The deltas extend seawards at an amazing rate and it builds up an extensive clean cal deltaic plain.

Conditions necessary for the formation of delta plains -

The sea in which the river empties should be Shallow so that the sediments do not disappear in deep-sea.

The water should be highly saline. It has the final particles to form aggregates.

There should be no strong waves or currents to wash away the sediments into the deep water.

Long rivers with many tributaries bring large amount of silt for deposition.

The reason that the river drains should have softer rock strata. Softer rocks are eroded easily and this maintains the supply of silt.

If a river drains into a lake it should be a freshwater lake suitable for quick deposition.

Some characteristic features of a delta explain are -

They are flat level lands.

They are triangular in shape, formed at the mouth of a river.

They are the extensions of the floodplain.

There are several smaller branches of the main river that drain into the sea. The smaller branches are called distributaries.

The Delta plain of Ganga - Brahmaputra is a spectacular example. Deltaic Plains are also found on the mouth of one Hwang Ho, Yangtze, Mississippi-Missouri and Nile.

OR

Describe the different processes of mechanical weathering with diagrams. **Ans:** Block disintegration: In dry climatic environment, rocks develop joints and track through successive process of expansion and contraction and ultimately break down into smaller blocks. This process is known as block disintegration.

Exfoliation: In some homogeneous rocks (which are formed of same mineral), like granite, process of exfoliation is most effective. As rocks are bad conductors of heat, during the daytime only the surface layer of these rocks gets heated and expand by heating. The underlying rock layers however remain comparatively cooler. So, due to repeated

expansion during the day, the surface rock layer gets detached from the underlying Rock layer just as an onion is peeled off in layer. So, due to Intense heat and also due to release of pressure, the upper layer splits of in foils, leaving behind spherical surface. This process is called exfoliation, and residual masses of round Rock remain there as exfoliation domes. IT solution is also called spalling. In this type of exfoliation, frost plays a vital role along with heat and pressure, in disintegration of rocks. Minerals of the rocks well due to absorption of water and produces cracks in the rock. At night when water freezes in these cracks the volume expands and it exerts pressure and the cracks enlarge. Eventually the rock surface peels off along these cracks. As this cycle repeats the outer surface repeatedly undergoes spalling. Open the broken weathered materials roll down under the force of gravity and accumulate at the foot of the exfoliation dome. Search loose accumulated masses at the foot of the mountain is called scree or talus.

Granular disintegration: Which process of mechanical weathering is common in heterogeneous rocks composed of various minerals. Different minerals have different coefficients of expansion. Due to variation of heat, various minerals expand and contract at different rates compared to each other. This result in complex formation of cracks in the rock and the minerals break up grain by grain along these cracks. This process of disintegration of rocks is called granular disintegration. In desert region, sound of Pistol shots can be heard which indicate granular disintegration of rocks. Granular disintegration usually occurs in course grained large crystalline rocks.

The action of Frost can be seen in cold countries. After rainfall some of the water enters into the joints and cracks of Rock. It freezes due to fall of temperature at night. This frozen Frost expands and requires more space. These joints and cracks widen anytime the rock break up and split into pieces.

ii. Analyze the factors for the development of tea industry in West Bengal. **Ans:** There is conducive climatic conditions for the growth of tea plants.

The land for the plantation of or estates are large and are obtained on lease from the government, in easy terms.

The plantation facilities for processing fee through 6 principle operations of weathering, rolling, fermenting, roasting, blending and grading.

Siliguri tea auction Centre was established in 1976 for better marketing facility of the local tea products.

Large number of people especially female population is easily available in and around Darjeeling for planting and processing of tea.

Tea being a beverage crop is quite popular as a stimulant. Eat therefore find a ready domestic market in the eastern zone of India.

Kolkata, provides port facilities for export of tea.

After the enactment of the Geographical Indication of Goods (registration and Protection Act 1999) in 2003, Darjeeling tea became the first Indian product to receive GI tag through the Indian Patent office.

OR

Describe the favourable geographical conditions for growing 'golden fibre' in West Bengal.
Ans: Jute grows well in warm and wet climate. Are two varieties of jute- lowland jute sown in March-April and upland jute sown in may-june.

Temperature - hot climate with average monthly temperature of 26° celsius is ideal for its cultivation. Temperature may rise up to 34° Celsius during the growing season.

Humidity - damp climate is necessary for jute cultivation. There should be about 80% to 90% humidity on an average.

Rainfall - jute required sufficient amount of rainfall. Annual average rainfall about 150 cm is ideal for jute. The rainfall should be well distributed over the period of growth. Alluvial soil is ideal suited for jute cultivation. As it exhaust the fertility of the soil newer alluvium is required for its growth. Jute can also be grown on clay or sandy soil. Fibre quality is however the best is grown on Alluvial soil.

Chemical fertilizers - use of chemical fertilizers is common for jute cultivation. This replenishes the nutrients necessary for the plants. Ample supply of water for retting as well as washing the fibre is necessary.

Labour - jute cultivation requires cheap supply of labour during, sowing, retting, washing, drying etc.

HYV for high yielding variety of seeds like JRC 212, JRC 321, JRO 632, etc you are used for high yield of the crop.

iii. Differentiate between the conventional and non-conventional sources of power. **Ans:**

Conventional energy	Non-conventional energy
(1) Conventional sources of energy are those that have been used from time immemorial.	(1) Non-conventional sources of energy are those that have been discovered and used recently.
(2) Conventional sources of energy include thermal power (produced from coal, petroleum and natural gas), hydro-electricity and nuclear energy.	(2) Non-conventional sources of energy are solar power, tidal energy, wave energy, wind power, biogas and geothermal energy.
(3) These are exhaustible forms of energy. Therefore, they are called fund resources.	(3) These are inexhaustible. Hence, they form flow resources.
(4) As they are limited in stock, they are expensive.	(4) As they are ubiquitous, they are much cheaper.
(5) Use of conventional sources of energy causes environmental pollution.	(5) They are non-pollutant.
(6) These produce waste materials and residues.	(6) These do not produce any waste.

OR

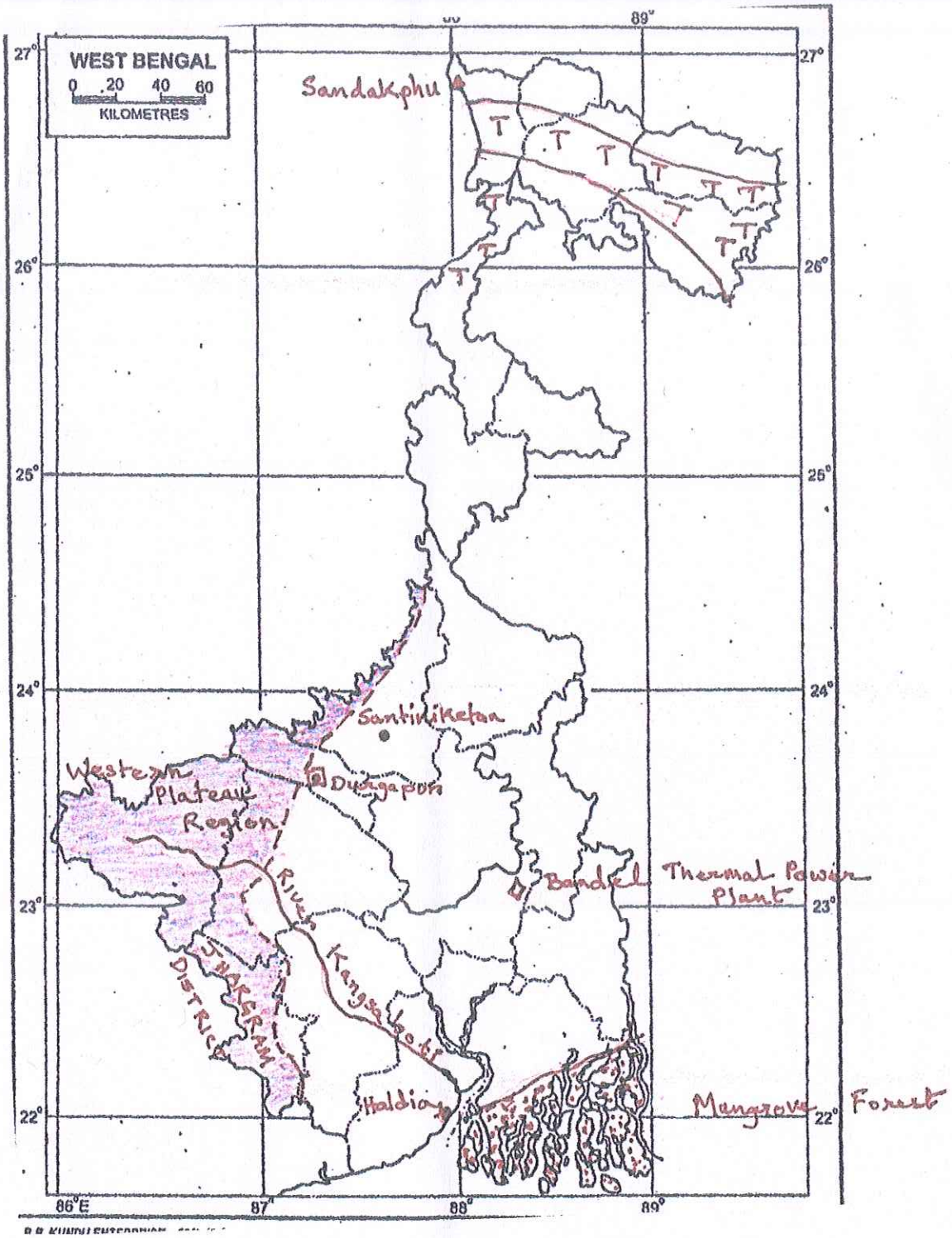
Present an account on the advantages and disadvantages of the following sources of conventional power – coal, petroleum and natural gas. **Ans:**

Name of the the source	Advantages	Disadvantages
Coal	1. Available in large reserves in seams. 2. Produces large amount of power	1. Bulky to transport. 2. Transportation cost is high. 3. Pollutes environment by giving out smoke.
Petroleum	1. Easy to transport by tankers. 2. By products are used in petro-chemical industries.	1. Pollutes environment. 2. Cause of Acid rain (releases pollutants). 3. Oil spillage causes depletion of oxygen. 4. Exploration of new oil reserve is not easy.
Natural Gas	1. Easier to transport (by pipelines) than coal or petroleum. 2. Cleaner source of energy than coal or oil. 3. Cheaper source of energy.	1. Release of pollutants causes acid rain. 2. Gas leakage causes depletion of oxygen. 3. Exploration of new reserve is not easy.

GROUP – F

9. Locate the following with proper names and symbols on an outline map of WEST BENGAL. 1 x 10=10

i. Sandakphu
ii. River Kangsabati
iii. Tea growing region
iv. Haldia port
v. Western plateau region
vi. Shantiniketan
vii. Mangrove forest region
viii. Durgapur iron and steel industry
ix. District of Jhargram
x. Bandel thermal power plant


WEST BENGAL
0 20 40 60
KILOMETRES
Sandakphu
Santiniketan
Durgapur
Western Plateau Region
Bandel Thermal Power Plant
Kangsabati River
PURULIA DISTRICT
Haldia
Mangrove Forest
27°
26°
25°
24°
23°
22°
86°E
87°
88°
89°