

FIRST YEAR HIGHER SECONDARY EXAMINATION SEPTEMBER-2021

OTECOTRAPHY - ANSWER KEY

Q. NO	ANSWERS	SPLIT SCORE	SCORE
1	B. Between 105° - 145°	1	1
2	C. Spring Tide	1	1
3	C. Caldera	1	1
4	A. Tide	1	1
5	D. Core	1	1
6	C. Labrador	1	1
7	Oreomorphology, climatology, Hydrology and Soil geography	$\frac{1}{2} \times 4$	2
8	Latitude, unequal distribution of land and water, prevailing wind, ocean currents	$\frac{1}{4} \times 4$	2
9	pole-fleeing Force and Tidel Force	1+1	2
10	<ul style="list-style-type: none"> * Carbon dioxide is transparent to the incoming Solar radiation but opaque to the outgoing terrestrial radiation. + It absorbs a part of terrestrial radiation and reflects back some part of it towards the earth's surface. + It is largely responsible for the green house effect. * The volume of carbon dioxide has been rising in the past few decades mainly because of the burning of fossil fuels. * This cause the increase of temperature of the air <p>OR any relevant points related (Any two points)</p>	1+1	2

11	<p>Dew: The moisture is deposited in the form of water droplets on cooler surfaces of solid objects such as stones, grass blades and plant leaves.</p> <p>Frost: Frost forms on cold surface when the excess moisture is deposited in the form of minute ice crystals instead of water droplets. (Frozen dewdrops are called Frost.)</p>	1+1	2				
12	Cocos plate, Nazca plate, Arabian plate, Phillipine plate, Caroline plate, Fuji plate (Any two)	1+1	2				
13	Normally, temperature decreases with increase in elevation. It is called Normal Lapse Rate. At times, the situation is reversed and the normal Lapse Rate is inverted. It is called Inversion of Temperature.	2	2				
14	parent material, Topography, Climate, Biological Activity and Time	1/4 x 24	2				
15	<ul style="list-style-type: none"> + water vapour is a variable gas in the atmosphere, which decreases with altitude + water vapour absorbs parts of the insolation from the sun and preserves the earth's radiated heat. + It thus acts like a blanket allowing the earth ^{not} rather to become too cold nor too hot + water vapour also contributes to the stability and instability in the air. <p>(Any two points)</p>	1+1	2				
16	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th data-bbox="207 1573 622 1660">Terrestrial planets</th> <th data-bbox="622 1573 1101 1660">Jovian planets</th> </tr> <tr> <td data-bbox="207 1660 622 2112"> <ul style="list-style-type: none"> + Formed in the close vicinity of the parent star where it was too warm for gases to condense to solid particles + The solar winds were most intense nearer the sun: so it blew off lots of </td> <td data-bbox="622 1660 1101 2112"> <ul style="list-style-type: none"> + Formed at quite a distant location. + The solar winds were not all that intense to cause similar removal of gases from the Jovian planets. </td> </tr> </table>	Terrestrial planets	Jovian planets	<ul style="list-style-type: none"> + Formed in the close vicinity of the parent star where it was too warm for gases to condense to solid particles + The solar winds were most intense nearer the sun: so it blew off lots of 	<ul style="list-style-type: none"> + Formed at quite a distant location. + The solar winds were not all that intense to cause similar removal of gases from the Jovian planets. 	1+1	2
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	<p>gas and dust from the terrestrial planets</p> <ul style="list-style-type: none"> + The terrestrial planets are smaller and their lower gravity could not hold the escaping gases + The Jovian planets are larger. <p>(Any two points)</p>		
17	<ul style="list-style-type: none"> + To the Northwest of the Aravalli hills lies the Great Indian Desert. + This region receives low rainfall below 150 mm per year, hence it has arid climate with low vegetation cover. + It is also known as Marusthali. 	1+1+1	3
18	<ul style="list-style-type: none"> + Regional Studies or Area Studies + Regional planning + Regional Development + Regional Analysis. <p>(Any three Branches)</p>	1+1+1	3
19	<ul style="list-style-type: none"> + Temperature, pressure and density increases with the increasing distance from the surface towards the interior in deeper depths. + meteors. + Oranitation + magnetic field + Seismic Activity <p>(Any three sources Sources)</p>	1+1+1	3
20	<ul style="list-style-type: none"> + weathering processes are responsible for breaking down the rocks into smaller fragments and preparing for soil formation + weathering aids mass wasting, erosion and reduction of relief and changes in land-forms are a consequence of erosion. + weathering of rocks helps in the enrichment and concentration of valuable ores of iron, manganese, aluminium, copper etc. 	1+1+1	3

21	Eastern coastal plains	Western coastal plains	1+1+1	3
	<ul style="list-style-type: none"> + An example of Emerged coast + Broader coast + well developed deltas are present + Less number of ports and harbours 	<ul style="list-style-type: none"> + An example of submerged coast. + Narrow coast + No deltas are present + It provides natural conditions for the development of ports and harbours. 		
	(Any three points)			

22	place aspects	Himalayan River	peninsular River	1+1+1	3
	place of origin	+ Himalayan mountain	+ peninsular plateau		
	Nature of flow	+ perennial	+ seasonal.		
	Type of drainage	+ Antecedent and consequent leading to dendritic patterns.	+ super imposed, rejuvenated resulting in trellis, radial and rectangular patterns.		
	Nature of river	Long course.	smaller		
	catchment Area	very large basins	Relatively smaller basins		
	Age of the river	young and youthful	old rivers.		

(Any three points)

23	To identify the two types of ecosystems as terrestrial and aquatic	1+1	3
	To write one characteristics each of them	1/2+1/2	

24	Diastrophism: All processes that move, elevate or buildup portions of the Earth's crust come under diastrophism. They include orogenic and epeirogenic processes, Earthquakes and plate tectonics. (Any three points about diastrophism)	1+1+1	3
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25

Lakshadweep islands :-

- * Located at a distance of 280-480 km off the Kerala coast
- * There are 36 islands of which 11 are inhabited
- * The island is broadly divided by Eleventh degree channel.

1+1+1

3

Andaman Nicobar Islands :-

- * It consists of about 572 islands
- * The entire group of island is divided into two the Andaman in the North and Nicobar in the south.
- * Barren Island the only active volcano in India is situated in the Nicobar island.

(Any other relevant points)

26

- * proposed by Hess
- * Constant eruptions at the crest of oceanic ridges cause the rupture of the oceanic crust and the new lava wedges into it, pushing the oceanic crust on either side. The ocean floor, thus spreads.
- * The younger age of the oceanic crust as well as the fact that the spreading of one ocean does not cause the shrinking of the other.
- * The ocean floor that gets pushed due to volcanic eruption at the crest, sinks down at the oceanic trenches and gets consumed.

1+1+1

3

(or any other relevant points related)

(Any three points)

27

- * Semi-diurnal tide
- * Diurnal tide
- * mixed tide

To identify any two types (Any 2)

To write one characteristic each (Any 2)

1+1

1+1

4

28	<ul style="list-style-type: none"> + The matching of continents + Rocks of same age across oceans + Tillite + placer deposits + Distribution of fossils. <p>To write any two evidences</p> <p>To write one characteristic each of them</p>	1+1	4
29	<ul style="list-style-type: none"> + ground shaking + Tsunami + Fires + structural collapse <p>OR any other relevant points related (Any 4 points)</p>	1x4	4
30	<ol style="list-style-type: none"> 1. Large sea surface with temperature higher than 27°C 2. presence of the Coriolis force 3. small variation in the vertical wind speed. 4. A pre-existing weak low pressure area 5. upper divergence above the sea level system <p>(Any four points)</p>	1x4	4
31	<ul style="list-style-type: none"> + Formed by the alluvial deposits brought by Indus, Ganga and Brahmaputra rivers + Extend around 3200km from East to west + Average width varies between 150 - 300 km + can be divided into three major zones: Bhabar, Terai and the alluvial plains <p>(OR any other relevant points related)</p>	1x4	4
32	<p>Currents are referred to by their "drift". usually, the currents are strongest near the surface and may attain speeds over five knots. At depths, currents are generally slow with speeds less than 0.5 knots. we refer to the speed of a current as its "drift". Drift is measured in terms of knots. The strength of a current refers to the speed of the current. A fast current is considered strong. A current is usually strongest at the surface and decreases in strength (speed) with depth. most current</p>	1x4	4

have speed less than or equal to 5 knots
(Any four points)

33 Project Tiger has been implemented since 1973. 1x4 4

2. Project Elephant was launched in 1992 to assist states having free ranging populations of wild elephant

3. Other projects such as Crocodile Breeding Project, Project Hargul and conservation of Himalayan musk deer have also been launched by the government of India.

4. For the purpose of effective conservation of flora and fauna, special steps have been initiated by the government of India in collaboration with UNESCO's 'Man and Biosphere Programme'.

34

- + Batholith
- + Lacolith
- + Lapolith
- + phacolith
- + sill
- + Dyke
- + sheet.

To identify any two

To write one characteristic each

1+1

1+1

4

35 Tectonic plates move horizontally over the asthenosphere as rigid units. 4 4

36

- + Heating by solar energy
- + wind
- + Gravity
- + Coriolis force.

1x4 4

37 To identify the three layers as Crust, mantle and Core 1 1/2

To write three points each 1 1/2 x 3 = 4 1/2 6

38	<p>To identify the Northern most division as Himalayas</p> <p>To write the subdivisions as :</p> <ul style="list-style-type: none"> + Kashmir Himalayas + Himachal and Uttarakhand Himalayas + Darjiling and Sikkim Himalayas + Arunachal Himalayas + Eastern Himalayas. <p>To write one characteristic each</p>	<p>1</p> <p>$\frac{1}{2} \times 5 = 2\frac{1}{2}$</p> <p>$\frac{1}{2} \times 5 = 2\frac{1}{2}$</p>	6
39	<ul style="list-style-type: none"> + Troposphere + Stratosphere + mesosphere + Thermosphere + Exosphere <p>To write the characteristic features of any three layers (2 points each)</p>	<p>$2+2+2$</p>	6
40	<ul style="list-style-type: none"> a. Lakshadweep islands b. Palk Strait c. Rajasthan d. Arunachal Pradesh e. Chennai f. Anaimudi <p>To identify</p> <p>To locate</p>	<p>$\frac{1}{2} \times 6 = 3$</p> <p>$\frac{1}{2} \times 6 = 3$</p>	6

<u>NAME</u>	<u>PEN</u>	<u>MOB</u>
SRILATHA	155376	8075646453
GIRIJA	44614	9946400011
JAFFAR SADIK	447229	7907034858
SANAL KUMAR V	441190	9447874283
PREMJITH LAL P.N	233467	9446634496
FELIX	414148	9495112375
JAGAL KUMAR. V	454877	9446507072
SAJU	234295	9447356343
SURESH K. V	399654	9747032332
D _r . JAYADEV	451819	9847877915
RAJESH. V	233199	8281121230
SAJITHA. T. C	626493	8590681440
MADHUSUDHANAN	232350	9447856121
SUDEER. C	411694	9447362526