

FIRST YEAR HIGHER SECONDARY MODEL EXAMINATION FEBRUARY 2023

PART III GEOGRAPHY ANSWER KEY

FY 37

Qn No	Value points	Split Scores	Scores
1	Pakistan, Nepal, Bhutan, Bangladesh	$\frac{1}{2} \times 4 = 2$	2
2	<p>The magnitude scale is known as the Richter scale. The magnitude relates to the energy released during the quake. The magnitude is expressed in numbers, 0-10.</p> <p>The intensity scale is named after Mercalli, an Italian seismologist. The intensity scale takes into account the visible damage caused by the event. The range of intensity scale is from 1-12.</p> <p align="center">(Any 1 point each)</p>	1+1	2
3	The area situated on the leeward side of a mountain, which gets less rainfall is known as the rain-shadow area	2	2
4	- Studies population growth, distribution, density, sex ratio, migration and occupational structure etc.	2	2
5	<ul style="list-style-type: none"> • The increasing trend in the concentration of GHGs in the atmosphere warm up the earth. • The global warming will adversely affect the life supporting system. • Rise in the sea level due to melting of glaciers and ice-caps and thermal expansion of the sea may inundate large parts of the coastal area and islands, leading to social problems. <p>Or any other relevant points related</p> <p align="center">(Any 2 points)</p>	1+1	2
6	<ul style="list-style-type: none"> • Antarctica and the surrounding oceanic plate • North American (with western Atlantic floor separated from the South American plate along the Caribbean islands) plate • South American (with western Atlantic floor separated from the North American plate along the Caribbean islands) plate • Pacific plate • India-Australia-New Zealand plate • Africa with the eastern Atlantic floor plate • Eurasia and the adjacent oceanic plate <p align="center">(Any 2)</p>	1+1	2
7	<p>Khader : New alluvial deposits</p> <p>Bhangar : Old alluvial deposits</p>	1 1	2

8	(i) the Continental Shelf (ii) the Continental Slope (iii) the Deep Sea Plain (iv) the Oceanic Deeps (Chapter 13) Or (i) continental margins (ii) deep-sea basins (iii) mid-ocean ridges (Chapter 4)	$\frac{1}{2} \times 4 = 2$ Or 2	2
9	<ul style="list-style-type: none"> Floods destroy valuable crops every year damage physical infrastructure such as roads, rails, bridges and human settlements Millions of people are rendered homeless and are also washed down along with their cattle in the floods Spread of diseases like cholera, gastro-enteritis, hepatitis and other water-borne diseases spread in the flood-affected areas Or any other relevant points related (Any 2 points)	1+1	2
10	Species which are not the natural inhabitants of the local habitat but are introduced into the system, are called exotic species.	2	2
11	Terrestrial radiation is in the form of long wave radiation. It is absorbed by the atmospheric gases particularly by carbon dioxide and the other green house gases. Thus, the atmosphere is indirectly heated by the earth's radiation.	3	3
12	Stalactites : Formed by the depositional activity of ground water. These hang as icicles of different diameters. (Any 1 point) Horns : Formed by the erosional activity of glaciers. If three or more radiating glaciers cut headward until their cirques meet, high, sharp pointed and steep sided peaks called horns form. (Any 1 point) Mushroom rocks : Formed by the erosional activity of wind. Remnants of resistant rocks are polished beautifully in the shape of mushroom with a slender stalk and a broad and rounded pear shaped cap above. (Any 1 point)	1 1 1	3
13	(i) States like Punjab, Haryana and Rajasthan being far away from the moderating influence of sea experience continental climate. (ii) The snowfall in the nearby Himalayan ranges creates cold wave situation (iii) Around February, the cold winds coming from the Caspian Sea and Turkmenistan bring cold wave along with frost and fog over the northwestern parts of India	1 1 1	3
14	Sea Breeze During the day the land heats up faster and becomes warmer than the sea. Therefore, over the land the air rises	1	

	giving rise to a low pressure area, whereas the sea is relatively cool and the pressure over sea is relatively high. Thus, pressure gradient from sea to land is created and the wind blows from the sea to the land as the sea breeze.	2	3
15	V shaped valley, gorges, canyons, potholes, plunge pools, incised meanders and river terraces. (Any 3) To identify To explain (one point each)	$\frac{1}{2} \times 3 = 1\frac{1}{2}$ $\frac{1}{2} \times 3 = 1\frac{1}{2}$	3
16	Surface inversion promotes stability in the lower layers of the atmosphere. Smoke and dust particles get collected beneath the inversion layer and spread horizontally to fill the lower strata of the atmosphere. Dense fogs in mornings are common occurrences especially during winter season. The inversion takes place in hills and mountains due to air drainage. It protects plants from frost damages.	3	3
17	(i) Warm tropical and subtropical oceans (ii) The subtropical hot deserts (iii) The relatively cold high latitude oceans (iv) The very cold snow covered continents in high latitudes (v) Permanently ice covered continents in the Arctic and Antarctica (Any 3)	1+1+1	3
18	<ul style="list-style-type: none"> • The eastern coastal plain is broader • It is an example of an emergent coast • There are welldeveloped deltas here, formed by the rivers flowing eastward in to the Bay of Bengal. These include the deltas of the Mahanadi, the Godavari, the Krishna and the Kaveri. • Because of its emergent nature, it has less number of ports and harbours. • The continental shelf extends up to 500 km into the sea, which makes it difficult for the development of good ports and harbours. Or any other relevant points related (Any 3 points)	1+1+1	3
19	Yamuna, Son, Ramganga, the Gomati, the Ghaghara, the Gandak, the Kosi and the Mahananda (Any 3)	1+1+1	3
20	(i) Industrial and technological advancement brought about a rapid increase in the exploitation of forest resources (ii) More and more lands were cleared for agriculture, human settlement, roads, mining, reservoirs, etc (iii) Pressure on forests mounted due to lopping for fodder and fuelwood and removal of small timber by the local people		

24	<p>The vegetative cover and organisms that occupy the parent materials from the beginning and also at later stages help in adding organic matter, moisture retention, nitrogen etc. Dead plants provide humus, the finely divided organic matter of the soil. Some organic acids which form during humification aid in decomposing the minerals of the soil parent materials.</p> <p>Intensity of bacterial activity shows up differences between soils of cold and warm climates. Humus accumulates in cold climates as bacterial growth is slow. In humid tropical and equatorial climates, bacterial growth and action is intense and dead vegetation is rapidly oxidised leaving very low humus content in the soil. Further, bacteria and other soil organisms take gaseous nitrogen from the air and convert it into a chemical form that can be used by plants.</p> <p style="text-align: center;">(Any 4 points related)</p>	1+1+1+1	4
25	<ul style="list-style-type: none"> • The Matching of Continents (Jig-Saw-Fit) • Rocks of Same Age Across the Oceans • Tillite • Placer Deposits • Distribution of Fossils <p style="text-align: center;">(Any 4)</p>	1+1+1+1	4
26	<ul style="list-style-type: none"> • The troposphere is the lowermost layer of the atmosphere. • Its average height is 13 km and extends roughly to a height of 8 km near the poles and about 18 km at the equator. • Thickness of the troposphere is greatest at the equator because heat is transported to great heights by strong convectional currents. • This layer contains dust particles and water vapour. • All changes in climate and weather take place in this layer. • The temperature in this layer decreases at the rate of 1° C for every 165m of height. • This is the most important layer for all biological activity. <p style="text-align: center;">(Any 4 points)</p>	1+1+1+1	4
27	<p>a) Arabian sea islands or Lakshadweep islands b) Godavari c) The Great Indian desert d) Tropical evergreen and semi evergreen forests</p> <p>To identify To locate</p>	$\frac{1}{2} \times 4 = 2$	4