

ANSWER KEY OF UPSC MOCK TEST IV

1. Consider the following statements:

1. The Himalayan mountain range extends from the Sutlej river in the west to the Brahmaputra river in the east.
2. The width of the Himalayan mountain range decreases from west to east.
3. The height of the western part of the Himalayan mountain range is more diverse than the eastern part.

Which of the statements given above is/are not correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Correct Answer: C

Explanation:

- Himalayan mountain ranges run in a west-east direction from the Indus to the Brahmaputra. Hence, statement 1 is not correct.
- The Himalayas are the highest mountain ranges in the world. Its width varies from 400 Km in Kashmir to 150 Km in Arunachal Pradesh. The width of the Himalayan mountain range from west to east decreases and height increases. Hence, statement 2 is correct.
- In the Himalayan mountain ranges, there is more height diversity in the eastern part than the western part. Hence, statement 3 is not correct.

2. Match the List-I related to the Himalayan regions, from west to east, with List-II:

Himalayan Ranges	Region
A. Punjab Himalaya	1. Between Sutlej and Indus river
B. Kumaon Himalaya	2. Between Kali and Teesta river
C. Nepal Himalaya	3. Between Sutlej and Kali river
D. Assam Himalaya	4. Between Teesta and Dihang river

Which of the pairs given above is/are correctly matched?

- (a) 1 only
- (b) 1 and 4 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

Correct Answer: B

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Explanation:

- The part of Himalayas lying between Indus and Sutlej has been traditionally known as Punjab Himalaya but it is also known regionally as Kashmir and Himachal Himalaya from west to east respectively.
- The part of the Himalayas lying between Sutlej and Kali rivers is known as Kumaon Himalayas. The Kali and Teesta rivers demarcate the Nepal Himalayas and the part lying between Teesta and Dihang rivers is known as Assam Himalayas. Hence, option B is correct.

3. Consider the following pairs:

Pass	State
1. Thalghat	- Maharashtra
2. Palghat	- Goa
3. Bhorghat	- Kerala
4. Diphu	- Arunachal Pradesh

Which of the pairs given above is/are **not** correctly matched?

- (a) 1 and 4 only
- (b) 2 and 3 only
- (c) 2, 3 and 4
- (d) 3 and 4 only

Correct Answer: B

Explanation:

- Thalghat, Palghat, and Bhorghat are the 3 main passes in the Sahyadhris (Western Ghats).
- Thalghat is located between Mumbai and Pune.
- Palghat is located between Palakkad and Coimbatore.
- Bhorghat is located between Mumbai and Nasik.
- Diphu pass is a mountain pass around the area of the disputed tri junction borders of India, China, and Myanmar. Diphu Pass lies in Arunachal Pradesh.

4. Which of the following statements is not correct?

- (a) Western Ghats are higher than Eastern Ghats.
- (b) The expansion of the Western Ghats is continuous, while the expansion of the Eastern Ghats is not.
- (c) Udagamandalam is an important hill station located in Annamalai mountain range
- (d) The highest peak of the Eastern Ghats is Jindhagada.

Correct Answer: C

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Explanation:

- The Western Ghats are higher than the Eastern Ghats. Their average elevation is 900– 1600 metres as against 600 metres of the Eastern Ghats. The Eastern Ghats stretch from the Mahanadi Valley to the Nilgiris in the south. Hence, statement A is correct.
- The expansion of the Western Ghats is continuous while the expansion of the Eastern Ghats is not. The Eastern Ghats are discontinuous and irregular and dissected by rivers draining into the Bay of Bengal. The Western Ghats cause orographic rain by facing the rain bearing moist winds to rise along the western slopes of the Ghats. Hence, statement B is correct.
- Shevaroy Hills and the Javadi Hills are located to the southeast of the Eastern Ghats. The highest peak of Eastern Ghats is Jindhagada (1690 m) and Mahendragiri is another important peak. Hence, statement D is correct.
- Udagamandalam or Ooty is a hill station of Tamil Nadu and it is situated on the Nilgiri hills. Hence, statement C is not correct.

5. Pitli Island, a bird sanctuary where no human habitation exists, is situated in?

- (a) Andaman and Nicobar Islands
- (b) Lakshadweep Islands
- (c) New Moore Islands.
- (d) Pamban Island

Correct Answer: B

Explanation:

There is a bird sanctuary on Pitli Island in the Lakshadweep Islands group and there is no human habitation here. Hence, statement B is correct.

6. Which of the following tributaries of the Ganga rise from the Nepal Himalayas?

1. Ghaghara
2. Ramganga
3. Gandak
4. Kosi

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Select the correct answer using the code given below:

- (a) 1, 2 and 3
- (b) 2, 3 and 4
- (c) 1, 3 and 4
- (d) 1 and 4 only

Correct Answer: C

Explanation:

- Tributaries of the Ganga which rise from the Nepal Himalayas are Ghaghara, Kosi and Gandak.
- Ghaghara river rises from the Mapchachungo glacier. Sharda river (Kali or Kali Ganga) joins it in plains and eventually it gets merged in the river Ganga in Chhapra.
- Gandak river forms after the merger of two streams Kali Gandak and Trishulganga. It rises in between Dhaulagiri and Mount Everest. This river merges in the Ganga river in Sonpur near Patna.
- Kosi is an antecedent river whose source is in Mount Everest. Its main stream the Arun emerges from here.
- Ramganga river rises from the Kumaon Mandal of the Himalayan Mountains in Uttarakhand. Hence, option C is correct.

7. In the context of Peninsular Rivers and Origin Sites, match List I with List-II:

List I

List-II

- | | |
|-------------|---------------------------|
| A. Tapi | 1. Brahmagiri hill-chain |
| B. Godavari | 2. Mahabaleshwar |
| C. Krishna | 3. Satpura mountain range |
| D. Kaveri | 4. Trimbakeshwar |

Code:

A B C D

- (a) 1 3 4 2
- (b) 3 4 1 2
- (c) 3 1 2 4
- (d) 3 4 2 1

Correct Answer: D

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Explanation:

- The Tapi rises in the Satpura ranges, in the Betul district of Madhya Pradesh. It also flows in a rift valley parallel to the Narmada.
- The Godavari is the largest Peninsular river. It rises from the slopes of the Western Ghats in the Nasik district of Maharashtra. Its length is about 1500 km. It drains into the Bay of Bengal.
- Rising from a spring near Mahabaleshwar, the Krishna flows for about 1400 km and reaches the Bay of Bengal.
- The Kaveri rises in the Brahmagiri range of the Western Ghats and it reaches the Bay of Bengal in south of Cuddalore, in Tamil Nadu.

Hence, option D is correctly matched.

8. Which of these are fresh water lakes?

1. Dal Lake
2. Wular Lake
3. Bhimtal
4. Loktak
5. Barapani

Select the correct answer using the code given below:

- (a) 1, 2 and 3
- (b) 2, 3, 4 and 5
- (c) 1, 3, 4 and 5
- (d) 1, 2, 3, 4 and 5

Correct Answer: D

Explanation:

Most of the freshwater lakes are in the Himalayan region. They are of glacial origin. In other words, they formed when glaciers dug out a basin, which was later filled with snowmelt. The Wular lake in Jammu and Kashmir, in contrast, is the result of tectonic activity. It is the largest freshwater lake in India. The Dal lake, Bhimtal, Nainital, Loktak and Barapani are some other important freshwater lakes. Hence, option D is correct.

9. In the context of Ganga Action Plan, consider the following statements:

1. The first phase of the Ganga Action Plan was initiated in 1985.
2. The second phase of the Ganga Action Plan was included under the National River Conservation Plan.

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Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Correct Answer: C

Explanation:

The activities of Ganga Action Plan (GAP) phase-I, initiated in 1985, were declared closed on 31st March 2000. The Steering Committee of the National River Conservation Authority reviewed the progress of the GAP and necessary correction on the basis of lessons learnt and experiences gained from GAP Phase-I. These have been applied to the major polluted rivers of the country under the NRCP. Hence, statement 1 is correct. The Ganga Action Plan (GAP) Phase-II, has been merged with the NRCP. The expanded NRCP now covers 152 towns located along 27 interstate rivers in 16 states. Under this action plan, pollution abatement works are being taken up in 57 towns. A total of 215 schemes of pollution abatement have been sanctioned. So far, 69 schemes have been completed under this action plan. A million litres of sewage is targeted to be intercepted, diverted and treated. Hence, statement 2 is correct.

10. The main factors that directly control the climate of a region are:

- 1. Latitude
- 2. Distance from the sea
- 3. Longitude
- 4. Air pressure
- 5. Altitude

Select the correct answer using the code given below:

- (a) 1, 2 and 5
- (b) 2, 3, 4 and 5
- (c) 1, 2, 4 and 5
- (d) 1, 2, 3, 4 and 5

Correct Answer: C

Explanation:

There are six major controls of the climate of any place. They are: latitude, altitude, pressure and wind system, distance from the sea (continentality), ocean currents and relief features. Hence, option C is correct. Longitude, which represents the grid lines on the Earth's surface extending from north-to-south, pole-to-pole, does not directly affect climate, but it does so indirectly, due to eastward or westward movement of air masses.

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11. Which of the following statements is/are correct?

1. India's climate has characteristics of tropical as well as subtropical climates.
2. India has less diurnal and annual temperature difference in the northern part of the Tropic of Cancer.
3. Heterogeneous climate is found in the southern part of India with high daily and annual temperature difference.

Select the correct answer using the code given below:

- (a) 1 only
- (b) 1 and 2 only
- (c) 2 and 3 only
- (d) 1 and 3 only

Correct Answer: A

Explanation:

The Tropic of Cancer passes through the middle of the country from the Rann of Kutch in the west to Mizoram in the east. Almost half of the country, lying south of the Tropic of Cancer, belongs to the tropical area. All the remaining area, north of the Tropic, lies in the sub-tropics. Therefore, India's climate has characteristics of tropical as well as subtropical climates. Hence, statement 1 is correct.

The southern part of India is located in the south of the Tropic of Cancer, which falls in the tropical region. Because the tropical region is closer to the equator, there is high temperature for the entire year and less daily and annual temperature difference. Hence, statement 3 is not correct.

The northern part of India is located north of the Tropic of Cancer and due to being away from the equator, there are high daily and annual temperature differences. Hence, statement 2 is not correct.

12. In the context of Inter Tropical Convergence Zone (ITCZ), consider the following statements:

1. The Inter Tropical Convergence Zone (ITCZ), is a broad trough of low pressure in equatorial latitudes.
2. It moves north or south with the apparent movement of the sun.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Correct Answer: C

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Explanation:

The Inter Tropical Convergence Zone (ITCZ), is a broad trough of low pressure in equatorial latitudes. This is where the northeast and the southeast trade winds converge. This convergence zone lies more or less parallel to the equator but moves north or south with the apparent movement of the sun. Hence, statements 1 and 2 are correct.

13. With reference to the local winds and the benefiting crops, consider the following pairs:

Local winds	Crop
1. Mango showers	- Mango
2. Blossom Showers	- Coffee
3. Kaal Baisakhi	- Jute

Which of the pairs given above is/are correctly matched?

- (a) 1 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Correct Answer: D

Explanation:

- Towards the close of the summer season, pre-monsoon showers are common especially, in Kerala and Karnataka. They help in the early ripening of mangoes, and are often referred to as 'mango showers'.
- Blossom Showers in Kerala help in the flowering of plantation crops like Coffee.
- Kaal Baisakhi: These are the local thunderstorms associated with violent winds, torrential downpours, often accompanied by hail. They occur in West Bengal. It is extremely helpful for the pre-kharif crops like jute, paddy and a large number of vegetables and fruits.
- Loo: These are strong, gusty, hot, dry winds blowing during the day over the North and North-Western India. They are beneficial in jute cropping.
- Hence, all the pairs are correctly matched.

14. Which regions of India receive rainfall 200 cm or more?

1. Western Ghats
2. Coromandel Coast
3. North-Eastern Sub-Himalayan Areas
4. Meghalaya Hills

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Select the correct answer using the code given below:

- (a) 1 and 2 only
- (b) 1, 3 and 4
- (c) 2, 3 and 4
- (d) 1, 2 and 4

Correct Answer: B

Explanation:

200 cm or more rainfall in India is on the western coast, the Western Ghats, the sub-Himalayan region of the northeast and the hills of Meghalaya.

The Coromandel coastal region receives an average of 80 cm rainfall, most of which falls between October and December.

Hence, option B is correct.

15. In which type of forests sandalwood, amla, mahua, teak and bamboo are found?

- (a) Tropical evergreen forest
- (b) Temperate continental evergreen forest
- (c) Moist deciduous forest
- (d) Dry deciduous forest

Correct Answer: C

Explanation:

On the basis of the availability of water, Tropical deciduous forests are further divided into moist and dry deciduous. Moist deciduous forests are found in areas receiving rainfall between 200 and 100 cm.

These forests exist, therefore, mostly in the eastern part of the country – northeastern states, along the foothills of the Himalayas, Jharkhand, West Orissa and Chhattisgarh, and on the eastern slopes of the Western Ghats.

Teak is the most dominant species of this forest. Bamboos, sal, shisham, sandalwood, khair, kusum, arjun, mulberry are other commercially important species. Hence, option C is correct.

16. Mangrove forests are found in the deltaic parts of which of the following rivers?

- 1. Ganges
- 2. Godavari
- 3. Mahanadi
- 4. Krishna

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Select the correct answer using the code given below:

- (a) 1 and 2 only
- (b) 1, 2 and 3
- (c) 1, 3 and 4
- (d) 1, 2, 3 and 4

Correct Answer: D

Explanation:

The area of mangrove forest in India is 7% of the world's mangrove area. These forests in India are highly developed in the Andaman and Nicobar Islands and Sunderban delta situated on the Ganges-Brahmaputra rivers in West Bengal. In addition, these forests are also found in the deltaic part of Mahanadi, Godavari and Krishna rivers. Hence, option D is correct.

17. Consider the following pairs:

List-I (Biosphere reserves) list-II (State)

- | | |
|-------------------|----------------|
| A. Nanda Devi | 1. Uttarakhand |
| B. Nokrek | 2. Assam |
| C. Dibru-Saikhowa | 3. Meghalaya |
| D. Agasthyamalai | 4. Kerala |

Which of the pairs given above is/are correctly matched?

- (a) 1 and 2 only
- (b) 3 and 4 only
- (c) 1 and 4 only
- (d) 1, 2 and 3

Correct Answer: C

Explanation:

Biosphere Reserves in India: There are 18 biosphere reserves in India:

1. Cold Desert, Himachal Pradesh
2. Nanda Devi, Uttarakhand
3. Khangchendzonga, Sikkim
4. Dehang-Debang, Arunachal Pradesh
5. Manas, Assam
6. Dibru-Saikhowa, Assam

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7. Nokrek, Meghalaya
8. Panna, Madhya Pradesh
9. Pachmarhi, Madhya Pradesh
10. Achanakmar-Amarkantak, Madhya Pradesh-Chhattisgarh
11. Kachchh, Gujarat (Largest Area)
12. Similipal, Odisha
13. Sundarban, West Bengal
14. Seshachalam, Andhra Pradesh
15. Agasthyamala, Tamil Nadu-Kerala
16. Nilgiri, Tamil Nadu-Kerala (First to be Included)
17. Gulf of Mannar, Tamil Nadu
18. Great Nicobar, Andaman & Nicobar Island

Hence, pairs 1 and 4 are correctly matched.

18. In terms of forest cover as percentage of total geographical area, arrange the following states in ascending order:

1. Meghalaya
2. Mizoram
3. Nagaland
4. Arunachal Pradesh
5. Manipur

Select the correct code from the following options: -

- (a) 1-2-3-4-5
- (b) 2-3-4-1-5
- (c) 3-5-1-4-2
- (d) 5-4-3-2-1

Correct Answer: C

Explanation:

Refer India State of Forest Report (ISFR) 2019

19. Which of the following biosphere reserves in India are recognized by UNESCO on the global network?

1. Nanda Devi
2. Nilgiri
3. Sundarban
4. Gulf of Mannar

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Select the correct answer using the code given below:

- (a) 1, 2 and 3
- (b) 1, 3 and 4
- (c) 2, 3 and 4
- (d) 1, 2, 3 and 4

Correct Answer: D

Explanation: There are a total of 18 biosphere reserves in India, 11 of those are recognized by the UNESCO global network-

1. Nilgiri (First to be included)
2. Gulf of Mannar
3. Sunderban
4. Nanda Devi
5. Nokrek
6. Pachmarhi
7. Similipal
8. Achanakmar - Amarkantak
9. Great Nicobar
10. Agasthyamala
11. Khangchendzonga (Added under Man and Biosphere Reserve Program in 2018)

20. Which of the following statements correctly defines 'gender ratio'?

- (a) Number of females per 100 men
- (b) Number of females per 1000 men
- (c) Number of males and females born within one year.
- (d) Total number of females born in ten years.

Correct Answer: B

Explanation:

Sex ratio is defined as the number of females per 1000 males in the population. This information is an important social indicator to measure the extent of equality between males and females in a society at a given time. Hence, option B is correct.

21. Consider the following statements:

1. Birth rate is the number of live births per thousand persons in a year.
2. In India, birth rates have always been higher than death rates

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Which of the above statements is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Correct Answer: C

Explanation:

Birth rate is the number of live births per thousand persons in a year. It is a major component of growth because in India, birth rates have always been higher than death rates. Hence, statements 1 and 2 are both correct.

22. Which of the following are the attributes that a thing has, to be termed as a resource?
1. Technologically accessible.
 2. Economic feasible.
 3. Culturally acceptable.

Select the correct answer using the codes given below?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) All of the above

Correct Answer: D

Explanation:

Everything available in our environment which can be used to satisfy our needs, provided, it is technologically accessible, economically feasible and culturally acceptable can be termed as 'Resource'.

23. Consider the following statements:

1. Exclusive Economic zone is the area of 200 kilometre from the territorial water in the adjacent ocean.
2. The ocean resources beyond the EEZ are known as International resources.

Select the correct answer using the codes given below:

- (a) 1 only
- (b) 2 only
- (c) Both
- (d) None

Correct Answer: B

Explanation:

States Exclusive Economic zone is an area beyond and adjacent to the territorial sea, extending seawards to a distance of not more than 200 nautical miles out from its coastal baseline.

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There are international institutions which regulate some resources. The oceanic resources beyond 200 nautical miles of the Exclusive Economic Zone belong to open ocean and no individual country can utilise these without the concurrence of international institutions.

24. Consider the following statements about Agenda 21:

1. It is a voluntary action plan of United Nations related to sustainable development.
2. One of its major objectives is that every local government should draw its own local Agenda 21.

Select the correct answer given below:

- (a) 1 only
- (b) 2 only
- (c) Both
- (d) None

Correct Answer: C

Explanation:

It is the declaration signed by world leaders in 1992 at the United Nations Conference on Environment and Development (UNCED), which took place at Rio de Janeiro, Brazil. It aims at achieving global sustainable development. It is an agenda to combat environmental damage, poverty, disease through global co-operation on common interests, mutual needs and shared responsibilities. One major objective of the Agenda 21 is that every local government should draw its own local Agenda 21.

25. Which of the following have the contribution to the concept of Sustainable Development at the global level?

1. Club of Rome
2. Brundtland Commission report
3. Earth Summit

Select the correct answer using the codes given below:

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) All of the above

Correct Answer: D

Explanation:

- At the international level, the Club of Rome advocated resource conservation for the first time in a more systematic way in 1968.
- Subsequently, in 1974, Gandhian philosophy was once again presented by Schumacher in his book *Small is Beautiful*. The seminal contribution with respect to resource conservation at the global level was made by the Brundtland Commission Report, 1987.
- This report introduced the concept of 'Sustainable Development' and advocated it as a means for resource conservation, which was subsequently published in a book entitled *Our Common Future*. Another significant contribution was made at the Earth Summit at Rio de Janeiro, Brazil in 1992.

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26. Earth's atmosphere consists of several layers. But, troposphere is the hottest layer. Why?

- (a) It is closest to the thermosphere.
- (b) It contains charged particles that trap the solar insolation.
- (c) It is heated by the Earth's surface
- (d) It is the only atmospheric layer that generates heat other than absorbing it via different sources.

Correct Answer: C

Explanation:

The troposphere is heated from below. Sunlight warms the ground or ocean, which in turn radiates the heat into the air right above it. This warm air tends to rise. That keeps the air in the troposphere 'stirred up'.

27. With regard to salinity of oceans, consider the following statements:

1. Salinity depends on the wind speed.
2. Among all the salts, sodium chloride is found in maximum proportion.
3. Enclosed seas or inland seas have lower salinity than open ocean.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 1 and 3 only
- (c) 2 and 3 only
- (d) 1 and 2 only

Correct Answer: D

Explanation:

Increase in wind speed increases rate of evaporation, hence salinity also increases. Enclosed seas will have higher salinity because of no dilution effect and lesser circulation.

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Hot deserts of the world, mainly located on western margins of continents, are formed due to which of the following factors?

1. Off-shore trade winds.
2. Presence of adjacent cold currents washing the shore.
3. They lie in horse latitudes where air is ascending, a condition least favourable for precipitation.

Select the correct answer using the codes given below:

- (a) 1 only
- (b) 1 and 2 only
- (c) 2 and 3 only
- (d) 1 and 3 only

Correct Answer: B

Explanation:

- Offshore trade winds and cold currents inhibits moisture ladden wind to bring rain in the regions resulting into desert formation.
- Cold current lower the carrying capacity of the winds entering into the region. Moisture ladden winds enter the continent in lower latitudes from Eastern margin and by the time they reach the Western margin their moisture is mostly exhausted.
- hot deserts lie in the subtropical high pressure belts where the air is descending, a condition least favourable for precipitation.

29. Arrange the following forests in the increasing order of their abundance in India:

1. Tropical Deciduous forests
2. Littoral and Swamp forests
3. Tropical Evergreen forests

Select the correct answer using the code given below:

- (a) 1 - 3 - 2
- (b) 2 - 3 - 1
- (c) 2 - 1 - 3
- (d) 3 - 2 - 1

Correct Answer: B

Explanation: Refer NCERT notes

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30. With reference to Shadow Zone, consider the following statements:

1. A zone between 105° and 145° from epicentre is identified as a shadow zone for both the types of waves.
2. The entire zone beyond 105° does not receive P-waves.
3. The shadow zone of P-waves is much larger than that of S-waves.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 1 and 2 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

Correct Answer: A

Explanation:

Earthquake waves get recorded in seismographs located at far off locations. However, there exist some specific areas where the waves are not reported. Such a zone is called the shadow zone. A zone between 105 degree and 145 degree from epicenter is identified as the shadow zone for both the types of waves does option 1 is correct.

- The entire zone beyond 105 degree does not receive S-waves, so option 2 is incorrect.
- The shadow zone of S-waves is much larger than that of P-waves.
- The shadow zone of S-waves is not only larger in extent but it is also a little over 40% of the earth surface. So option 3 is incorrect.

31. Consider the following micro-organisms:

1. Bacteria
2. Fungi
3. Protozoans
4. Virus

Which of the above micro-organisms contribute in soil development?

- (a) 1 and 2 only
- (b) 1, 2 and 4 only
- (c) 1, 2 and 3 only
- (d) 1, 2, 3 and 4

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Correct Answer: C

Explanation:

Microorganisms are responsible for an estimated three-quarters of a soils metabolic activity. These microorganisms help release nutrients from dead organisms. Algae, fungi, protozoans, actinomycetes and other minuscule organisms play a role in soil development.

Virus does not play a direct role in soil development as they need a host for growth and survival.

32. With reference to clouds, which of the following statements is correct?

- (a) Cirrus clouds are associated with rain-bearing clouds.
- (b) Nimbo-stratus clouds create darkness because sun light is obstructed due to its high thickness.
- (c) Rainfall in the temperate cyclones is generally caused by Nimbo-stratus clouds.
- (d) Rainfall in the tropical cyclones is generally caused by Cumulo-nimbus clouds.

Correct Answer: B

Explanation:

Cirrus clouds do not cause rainfall. The rainfall in the temperate cyclones is generally caused by cumulonimbus clouds. the rainfall in the tropical cyclones is generally caused by nimbostratus clouds.

33. With reference to landform development during different stages of a stream, consider the following statements:

- 1. V-shaped valleys and waterfalls are observed in the youth stage.
- 2. In the mature stage, most of landscape is at sea level.
- 3. Waterfalls and rapids begin to disappear only in the old stage.

Select the correct answer using the codes below:

- (a) 1 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Correct Answer: A

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Explanation:

Statement 1 is correct: in the 'youth stage' of stream, V-shaped valleys with no flood plains are observed. Waterfalls and rapids are common at this stage.

Statement 2 is incorrect: most of the landscape is at sea level or slightly above it during the 'old stage'.

Statement 3 is incorrect: waterfalls and rapids disappear at the 'mature stage'.

34. Which of the following conditions is/are favourable for the formation of deltas?

1. Active erosion in the upper course of river to provide sediments for deposition.
2. There should be strong current running at right angles to the river mouth.
3. The coast should be sheltered, preferably tideless.

Select the correct answer using codes given below:

- (a) 1 and 2 only
- (b) 2 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Correct Answer: C

Explanation:

Strong current at right angles to the river mouth wash away the sediments and thus, raw material for formation of delta would not be available.

35. Consider the following statements regarding Fold mountains:

1. Fold mountains are also called as Mountains of accumulation.
2. The upfolded waves of fold mountains are called synclines and are convex in shape.
3. Overriding portion of the thrust fold is termed a 'nappe'.

Which of the statements given above is /are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 3 only
- (d) 1, 2 and 3

Correct Answer: C

ANSWER KEY OF UPSC MOCK TEST IV

Explanation:

- Statement 1 is incorrect: fold mountains may also be called 'mountains of elevation'.
- Volcanic mountains are often called 'mountains of accumulation'.
- Statement 2 is incorrect: up folds are called anticlines (convex in shape). Down folds are called synclines (concave in shape).
- Statement 3 is correct. Overriding portion of the thrust fault is termed a 'nappe'.

36. With reference to soil erosion, consider the following statements:

1. Gully erosion takes place on level lands after a heavy shower.
2. Sheet erosion is commonly observed on steep slopes.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Correct Answer: D

Explanation:

- Sheet erosion takes place on level lands after heavy shower and the soil removal is not easily noticeable. It is harmful since it removes the finer and more fertile topsoil.
- Gully erosion is common on steep slopes.
- Gullies deepen with rainfall, cut the agricultural lands into small fragments and make them unfit for cultivation. Therefore, both statements are incorrect.

37. Consider the following statements:

1. During the El-Nino year the eastern pacific waters are warmer than normal years.
2. During the La - Nina year the western pacific waters are generally colder than usual.

ANSWER KEY OF UPSC MOCK TEST IV

Which of the above statements is/are correct?

- (a) Only 1
- (b) Only 2
- (c) Both
- (d) None

Correct Answer: A

Explanation:

During la Nina the piling of hot water in the Western Pacific intensifies, hence it becomes warmer than usual.

38. Cold currents bring cold water into warm water areas. These currents are usually found on the-

1. West coast of the continents in the low and middle latitudes in both hemispheres.
2. East coasts in the higher latitudes in the Northern Hemisphere.

Which of the above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) None

Correct Answer: C

Explanation:

Cold currents are usually found on the West coast of the continents in the low and middle latitudes (true in both hemisphere) and on the east coast in the higher latitudes in the Northern hemisphere.

warm currents bring warm water into cold water areas and are usually observed on the east coast of continents in the low and middle latitudes (true in both hemispheres). In the Northern hemisphere there are found on the West coast of continents in high latitude.

ANSWER KEY OF UPSC MOCK TEST IV

39. Which of the following climate type does not enjoy rainfall all-round the year?

- (a) Steppe type
- (b) China type
- (c) Laurentian type
- (d) British type

Correct Answer: A

Explanation:

The British type, Laurentian type, and China type of climatic zones enjoy rainfall all throughout the year. However scanty, all seasons have some amount of rainfall. Steppe type has light summer rain which also does not allow growth of forests.

40. Which of the following ocean currents form the boundary of the Sargasso Sea?

1. Gulf stream
2. Canaries current
3. North Atlantic equatorial current
4. Labrador current
5. California current

Select the correct answer using the code given below:

- (a) 1, 3 and 4 only
- (b) 1, 2 and 3 only
- (c) 1, 4 and 5 only
- (d) 2, 3 and 4 only

Correct Answer: B

Explanation:

The Sargasso Sea is a region in the gyre in the middle of the North Atlantic Ocean. It is bounded on the west by the Gulf Stream; on the north, by the North Atlantic drift; on the east, by the Canary current; and on the south, by the North Atlantic Equatorial Current.

ANSWER KEY OF UPSC MOCK TEST IV

41. With reference to India's peninsular bloc, consider the following statements:

1. The Peninsular is formed essentially by a great complex of very ancient gneisses and granite rocks.
2. The Thar desert in Rajasthan is also an extension of the Peninsular block.
3. A major part of the west coast emerged from the ocean in the past.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 1 and 3 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

Correct Answer: A

Explanation:

The peninsular block is formed by a great complex of ancient gneisses and granite rocks. The northern boundary of the peninsular block may be taken as an irregular line running from Kutch along the Western flank of the Aravalli range near Delhi and then roughly parallel to the Yamuna and Ganga as far as the Rajmahal hills and the Ganga delta.

Apart from these, the Karbi Anglong and the Meghalaya plateau in the northeast and Rajasthan in the West are also extensions of this block.

Since the Cambrian period, the peninsula has been standing like a rigid block with the exception of some of its Western coast which is submerged beneath the sea and some other parts change due to tectonic activity without affecting the original basement.

42. "South of the tropical grasslands of Southern Brazil lies the region of temperate grasslands. This region has a warm climate with rain all through the year, although it rains more in summers than in winter. These grasslands are found in central Argentina."

Which of the following region is described in the above passage?

- (a) Selvas
- (b) Campos
- (c) Gran Chaco
- (d) Pampas

Correct Answer: D

ANSWER KEY OF UPSC MOCK TEST IV

Explanation:

The passage describes the Pampas region.

Description of the other options of question:

1. Selvas-the Amazon basin belt. This region is covered with equatorial rainforest locally known as Selvas.
2. Campos (and Llanos)- these lie on either side of the Amazon forests. Have the Savannah type of climate. In the north of Amazon, in the Orinoco river basin, they are locally known as the Llanos. In the south, in Central Brazil, they are known as Campos. In this region, there is a distinct to dry period and the rain occurs mainly in summer.
3. Gran Chaco-in the lowlands of Northern Argentina and western Paraguay, it is dry during winter and wet during summer. Rains are heavy. This region is covered with thick forests and grasslands and is locally known as the Gran Chaco.

43. With reference to characteristics of natural vegetation in India, consider the following statements:

1. Trees are found in the warm and humid areas.
2. The mean annual temperature is above 22°C.
3. Annual rainfall is above 200 cm.
4. Rosewood, ebony and Mahogany are important species found.

Which of the following forests is best characterized by the features given above?

- (a) Tropical Moist Deciduous forests
- (b) Tropical Semi-Evergreen forests
- (c) Tropical Evergreen forests
- (d) Tropical Dry Deciduous forests

Correct Answer: C

Explanation:

Tropical evergreen forests are found in:

- Western slope of Western Ghats.
- Hills of northeast
- Andaman and Nicobar Islands.

All the statements given in the question describe the tropical evergreen forests.

ANSWER KEY OF UPSC MOCK TEST IV

44. Which of the following characteristics correctly define footloose industries?

1. They can be located in wide variety of places.
2. They primarily depend on specific raw material.
3. These are generally a non-polluting industry.
4. They generally employ small labour force.

Select the correct answer using the code given below:

- (a) 1 and 2
(b) 2 and 3
(c) 1, 3 and 4
(d) 1, 2, 3 and 4

Correct Answer: C

Explanation:

Statement 2 is wrong.

These industries are generally 'independent' of raw material and depend on proximity to market. They largely depend on component parts example watch making industry.

45. Match the following lists:

List I

List II

- | | |
|------------|---|
| A. Chos | 1. Lacustrine deposits in the valley of Kashmir. |
| B. Karewas | 2. Small streams along Himalayan foothills in Punjab. |
| C. Bhurs | 3. Terai regions of Bengal |
| D. Duars | 4. Sand deposits in parts of Upper Ganga. |

Select the correct answer using the code given below:

- (a) A-2, B-1, C-3, D-4
(b) A-2, B-1, C-4, D-3
(c) A-3, B-1, C-2, D-4
(d) A-3, B-1, C-4, D-2

Correct Answer: B

ANSWER KEY OF UPSC MOCK TEST IV

Explanation:

- Karewas are lacustrine deposits of Kashmir valley. Here zaffron, a variety of saffron is grown.
- Chos are small streams in Punjab, which come down from hills and cause water logging in plains.
- Duars are Terai region of Bengal, Assam and Bhutan.

46. With reference to the relation between longitude and time, consider the following statements:

1. Every 15 degrees we go eastward, local time is retarded by 1 hour.
2. Every 15 degrees we go westward, local time is advanced by 1 hour.
3. Places east of the Greenwich have time ahead of that of Greenwich.
4. Places west of the Greenwich have time behind of that of Greenwich.

Which of the statements given above is/are correct?

- (a) 1 and 3 only
- (b) 3 only
- (c) 3 and 4 only
- (d) 1 and 2 only

Correct Answer: C

Explanation:

Earth rotates 15 degrees of longitude per hour.

Places east of Greenwich, are ahead of Greenwich mean time. (e.g. India is GMT +5:30)

So, whenever one travels eastwards, for every 15 degrees covered, the local time gets advanced by 1 hour.

On the other hand, places west of Greenwich are behind GMT. So, when one travels westwards 15degrees, the local time gets retarded by 1 hour.

47. Match the India's mountain passes with their location in the respective states:

- | Pass | : | State |
|---------------|---|----------------------|
| 1. Nathu La | : | (A) Uttarakhand |
| 2. Lipulekh | : | (B) J & K |
| 3. Rohtang La | : | (C) Sikkim |
| 4. Zoji La | : | (D) Himachal Pradesh |

ANSWER KEY OF UPSC MOCK TEST IV

Select the correct answer using the code given below:

- (a) 1-A, 2-C, 3-B, 4-D
- (b) 1-C, 2-A, 3-B, 4-D
- (c) 1-C, 2-A, 3-D, 4-B
- (d) 1-A, 2-C, 3-D, 4-B

Correct Answer: C

Explanation:

- Nathula pass in Sikkim connects India-China was recently opened for pilgrimage purpose to Mansarovar lake.
- Earlier Lipulekh Pass was used for the route for Mansarovar pilgrimage, but it was badly damaged in the floods in Uttarakhand in 2013.
- Zozi La is a high mountain pass in India, Kashmir, located between Srinagar and Leg.
- Rohtang La pass in Himachal connects Manali in the Lullu Valley to Keylong in the Lahaul valley.

48. Consider the following pairs of 'Type of Climate' and 'Area Associated':

1. Semi-arid steppe climate: North-Western Gujarat
2. Cold humid winter with short summer: Arunachal Pradesh
3. Monsoon with dry summer: Coromandel Coast of Tamil Nadu

Which of the above pairs is/are correctly matched?

- (a) 1 only
- (b) 1 and 3 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

Correct Answer: D

Explanation:

All are correctly matched.

Refer: Koppen's scheme of dividing India into 8 climatic zones.

ANSWER KEY OF UPSC MOCK TEST IV

49. Consider the following climate types and their characterization:

1. Mediterranean climate: Warm summers and cold winters with three months below freezing.
2. Marine west coast: Very large annual temperature range.

Which of the above is/are correct matches?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) None of the above

Correct Answer: D

Explanation:

Mediterranean climate: temperature range is moderate with warm to hot summers and mild winters in Mediterranean climate.

Marine West coast: temperature cycle is moderated by marine influence which results in small temperature range.

50. What is the correct sequence of occurrence of following mountains ranges of south India as one proceeds from North and South?

1. Palkonda Hills
2. Shevaroy Hills
3. Javadi Hills
4. Palani Hills

Select the correct answer using the code given below:

- (a) 1-2-3-4
- (b) 3-1-2-4
- (c) 3-2-4-1
- (d) 1-3-2-4

Correct Answer: D

Explanation:

Refer map of India.

ANSWER KEY OF UPSC MOCK TEST IV

51. Consider the following statements with respect to Northern Plains:

1. The largest part of the northern plain is formed of new alluvium called khadar.
2. The Khadar is not suitable for intensive agriculture.
3. The river streams disappear in the Bhangar belt and re-emerge in the terai region.

Which of the statements given above is/are NOT correct?

- (a) 2 only
(b) 1 and 2 only
(c) 2 and 3 only
(d) 1, 2 and 3

Correct Answer: D

Explanation:

All the statements given are incorrect.

- The largest part of the northern plain is formed of older alluvium, called bhangar.
- The newer, younger deposits of the flood plains are called khadar.
- They are renewed almost every year and so are fertile, thus, ideal for intensive agriculture.
- The rivers, after descending from the mountains deposit pebbles in a narrow belt of about 8 to 16 kilometre in with line parallel to the slopes of the shivaliks. It is known as bhabar. All the streams disappear in this bhabar belt. South of this belt, the streams and rivers re-emerge and create a wet, swampy and marshy region known as terai.

52. Consider the following statements:

1. India lies in the region of north-easterly winds.
2. North-easterly winds originate from the subtropical high-pressure belt of the northern hemisphere.
3. North-easterly winds are known as doldrums.

Which of the above statements is/are correct?

- (a) 1 and 3 only
(b) 1 and 2 only
(c) 2 and 3 only
(d) 1, 2 and 3

Correct Answer: B

ANSWER KEY OF UPSC MOCK TEST IV

Explanation:

Statements 1 and 2 are correct.

Statement 3 is incorrect: doldrums is a region (not name of any wind).

Known to sailors around the world as the doldrums. It is also referred to as the Inter-Tropical Convergence Zone (ITCZ).

it is a belt around the earth extending approximately five degrees North and South of the equator. Here the prevailing trade winds of both the hemisphere collide with each other. Due to intense solar heating near the equator, the warm, moist air is forced into the atmosphere. Because the air circulates in an upward direction, there is often little surface wind in the IT CZ, creating a calm in the region. Ships can keep sailing for weeks at length due to absence of winds. And that's why they call it the doldrums.

53. Which of the following methods are used for conservation of soil?

1. Mulching
2. Contour Barriers
3. Rock Dam
4. Inter Cropping
5. Shelter Belt
6. Terrace farming

Select the correct answer using the code given below:

- (a) 1, 2, 3 and 4 only
(b) 2, 3 and 4 only
(c) 1, 5 and 6 only
(d) 1, 2, 3, 4, 5 and 6

Correct Answer: D

Explanation:

All of the given methods are used for conservation of soil.

54. What is the correct sequence of occurrence of the following passes as one proceeds from east to west?

1. Bum La
2. Diphu Pass
3. Khardung La
4. Nathu La

ANSWER KEY OF UPSC MOCK TEST IV

Select the correct answer using the code given below:

- (a) 2-1-3-4
- (b) 1-2-4-3
- (c) 2-1-4-3
- (d) 2-4-1-3

Correct Answer: C

Explanation:

Refer the physical map of India.

55. Earthquakes are most prone to occur in areas where-

1. There are active volcanoes
2. There are large reservoirs
3. There are tectonic fault planes

Choose the correct answer using the codes below:

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) All of the above

Correct Answer: D

Explanation:

Sources of earthquakes:

- Tectonic earthquakes-sliding of plates along a fault plane.
- Volcanic earthquakes
- Collapse of roof of underground mines.
- Explosions by chemicals.
- Reservoir induced earthquakes in areas where large reserves are located.

56. With reference to the drainage patterns, consider the following statements:

1. Trellis pattern develops where hard and soft rocks exist parallel to each other.
2. When rocks are strongly joined, then rectangular pattern develops.

ANSWER KEY OF UPSC MOCK TEST IV

3. When the river channel follows the slope of the terrain, it develops dendritic pattern.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 3 only
- (c) 1, 2 and 3
- (d) None

Correct Answer: C

Explanation:

The dendritic pattern develops where the river channel follows the slope of the terrain. The stream with its tributaries resembles the branches of a tree, thus the name dendritic.

River joined by its tributaries, at approximately right angles, develops the trellis pattern.

A trellis drainage pattern develops where hard and soft rock exists parallel to each other.

A rectangular drainage pattern develops on a strongly jointed rocky terrain.

The radial pattern develops when stream flow in different directions from a central peak or dome like structure.

57. With reference to superimposed drainage system, consider the following statements:

- 1. It is a drainage system which exhibits discordance with the underlying rock structure.
- 2. This type of drainage is a characteristic feature of Peninsular Rivers.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Correct Answer: C

Explanation:

Superimposed drainage system exhibits discordance with the underlying rock structure because it originally developed on a cover of rocks that has now disappeared due to denudation. Peninsular rivers exhibit this type of drainage.

ANSWER KEY OF UPSC MOCK TEST IV

58. Which of the following factors can explain the differences between the nature of terrestrial (earth like) and jovian (gas giants) planets?

1. The terrestrial planets were formed in the close vicinity of the parent star where it was too warm for gases to condense to solid particles.
2. The solar wind was most intense nearer the sun; so, it blew off lots of gas and dust from the terrestrial planets.
3. The terrestrial planets are smaller and their lower gravity could not hold the escaping gases.

Choose the correct answer using the codes below:

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) All of the above

Correct Answer: D

Explanation:

All the given reasons are correct.

59. If you are traveling from South to North in peninsular India, which of the following denotes the correct sequence in which you will visit the hills?

- (a) Cardamom - Anaimalai - Nilgiri - Javadi
- (b) Anaimalai - Cardamom - Nilgiri - Javadi
- (c) Cardamom - Nilgiri - Anaimalai - Javadi
- (d) Cardamom - Nilgiri - Javadi - Anaimalai

Correct Answer: A

Explanation:

The correct sequence is option A. Refer physical map of India.

ANSWER KEY OF UPSC MOCK TEST IV

60. Which of the following places in India houses both Mangroves and Tropical Evergreen forests?

1. Andaman and Nicobar Islands
2. Sunderbans
3. Bhitarkanika
4. Pichavaram
5. Gulf of Kutchh

Select the correct answer using the codes below:

- (a) 1 only
- (b) 1 and 2 only
- (c) 1, 4 and 5 only
- (d) 3, 4 and 5 only

Correct Answer: A

Explanation:

Except Andaman and Nicobar all mentioned places have mangroves but not evergreen forests.

61. Consider the following pairs:

1. Nainital : Shiwaliks
2. Mt. Abu : Aravalis
3. Ooty : Nilgiri Hills

Which of the pairs given above is/are correctly matched?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 3 only
- (d) 1, 2 and 3

Correct Answer: B

Explanation:

- Nainital is located in Kumaon hills of Himalayas (not Shiwaliks).
- Mount Abu is situated in Aravalli hills and Ooty in Nilgiri hills.

ANSWER KEY OF UPSC MOCK TEST IV

62. Consider the following statements about the Earth's Revolution around the Sun:

1. The seasons arise from the Earth's revolution around the Sun and the tilt of the Earth's axis.
2. At the winter solstice, the northern hemisphere is tilted toward the Sun.
3. On the day of equinox, day and night are of equal length everywhere on the globe.

Select the correct answer using the code given below:

- (a) 1 only
- (b) 1 and 3 only
- (c) 2 only
- (d) 1, 2 and 3

Correct Answer: B

Explanation:

- At the summer solstice (June), the northern hemisphere is tilted toward the sun.
- At the winter solstice (December), the southern hemisphere is tilted toward the sun.
- At the equinoxes, day and night are of equal length everywhere on the globe.
- The seasons arise from earth's Revolution around the sun and the tilt of the Earth's axis.

63. Consider the following statements regarding Glacial Landforms:

1. Erosion by glaciers is tremendous because as glacier moves it becomes water, moving fast and taking lot of rocks with it.
2. Tarn lakes are the lakes seen after the glacier disappears.
3. Moraines are smooth oval shaped mound like features composed of glacial till.

Select the INCORRECT statement(s) using the codes given below:

- (a) 1 only
- (b) 2 only
- (c) 3 only
- (d) 1 and 3 only

Correct Answer: D

ANSWER KEY OF UPSC MOCK TEST IV

Explanation:

Statement 1 is wrong: erosion by glaciers is tremendous because of friction caused by sheer weight of the ice. Statement 2 is correct: A lake of water seen quite often within the cirques after the glacier disappears is called 'Cirque Lake' or 'Tarn Lake'.

Statement 3 is wrong: drumlins are smooth oval shaped ridge like features mainly composed of glacial till. Moraines are long ridges of deposits of glacial till.

64. With reference to planetary winds, consider the following statements:

1. Doldrum is a regular feature all along the equator.
2. Trade winds are stronger in the winter than the summer.
3. Westerlies are less effective during summer season.

Which of the above statement(s) is/are correct?

- (a) 1 only
- (b) 2 and 3 only
- (c) 1 and 2 only
- (d) 1 and 3 only

Correct Answer: B

Explanation:

Statement 1 is wrong: doldrums are not present all along the equator as land mass present along the equator bring about break in distribution of doldrums along the equator. Also, with the movement of sun between the tropic of Cancer and Capricorn, means the ITCZ is not fixed at equator. With shift of ITCZ there is also a shift in doldrums.

65. The practices of 'Milpa' in America and 'Ladang' in Indonesia and Malaysia are related to which of the following?

- (a) Shifting cultivation
- (b) Intensive Mixed farming
- (c) Traditional commercial Livestock Rearing
- (d) Nomadic Herding based on indigenous traditions

Correct Answer: A

ANSWER KEY OF UPSC MOCK TEST IV

Explanation:

- Shifting cultivation is also called slash and burn agriculture. The vegetation is usually cleared by fire, and the ashes add to the fertility of the soil.
- It is prevalent in tropical regions by different names: e.g. jhuming in northeastern states of India, Milpa in Central America and Mexico, and Ladang in Indonesia and Malaysia.

66. Which of the following statements is/are true about meanders?

1. Meanders are formed when load carrying capacity of the river increases drastically.
2. Ox-bow lakes are the result of meandering rivers.
3. Its concave bank is known as cut-off bank and convex as slip-off bank.

Select the correct statements using following codes:

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 3 only
- (d) None of them are true

Correct Answer: B

Explanation:

- Meanders are formed when load carrying capacity of the river decreases drastically. Hence these are mainly found in lower course of the river.
- As meanders grow into deep loops, the same may get cutoff due to erosion at the inflection points, and are left as oxbow lakes.
- Its concave bank is known as cutoff Bank, and convex as slip-off bank.

67. Which of the following pairs is/are correctly matched?

1. Deltas: They are formed when load carrying capacity of river gets reduced to a great extent.
2. Point Bars: They are formed by sediments deposited in a linear fashion found on the convex side of meanders of large rivers.
3. Alluvial fans: They are formed when streams flowing from higher levels break into foot slope plains of low gradient.

ANSWER KEY OF UPSC MOCK TEST IV

Select the correct statements using following codes:

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Correct Answer: D

Explanation:

All are correctly matched.

68. Consider the following major discontinuities of Earth:

1. Conrad : Outer and Inner Crust
2. Mohorovicic : Crust and mantle
3. Gutenberg : Outer and Inner Mantle
4. Lehmann : Mantle and Core

Which of the pairs given above is/are correctly matched?

- (a) 1 and 2 only
- (b) 1, 2 and 3 only
- (c) 2 and 3 only
- (d) 1, 2, 3 and 4

Correct Answer: A

Explanation:

Earth's major discontinuities:

1. Conrad: outer and inner crust.
2. Mohorovicic: crust and mantle
3. Repetti: outer and inner mantle
4. Wheichart-Gutenberg: mantle and core
5. Lehmann: outer and inner core

ANSWER KEY OF UPSC MOCK TEST IV

69. The Coral reefs are diverse underwater ecosystems held together by calcium carbonate structures secreted by corals. Which among the following conditions are responsible for the growth of coral reefs?

1. Relatively warm tropical oceans with minimum 20°C temperature
2. Ocean water with plenty of sedimentation
3. Relatively high salinity in ocean water

Select the correct answer using the codes below:

- (a) 1 and 3 only
- (b) 2 and 3 only
- (c) 1 only
- (d) None of the above

Correct Answer: C

Explanation:

Factors that aid the growth of coral reefs:

- Warm Tropical Ocean is located between 30-degree north and 25 degrees South latitude, where a minimum temperature of 20 degree Celsius is found.
- Oceanic water free of sedimentation.
- Transparent parts of oceanic bodies.
- Relatively low salinity of ocean bodies

70. Which among the following is alternatively referred to as Laurentian Climate?

- (a) Cool Temperate Continental Climate
- (b) Warm Temperate Eastern Margin Climate
- (c) Cool Temperate Eastern Margin Climate
- (d) Cool Temperate Western Margin Climate

Correct Answer: C

Explanation:

The cool temperate climate of eastern margin is referred to as Laurentian climate. This climate is an intermediate type of climate between the British and the Siberian type of climate. It has features of both the maritime and the continental climates.

ANSWER KEY OF UPSC MOCK TEST IV

71. Which among the following sets of pair is/are correctly matched?

1. Typhoons: China sea
2. Tornadoes: Islands of West-Indies
3. Tropical Cyclones: Indian Oceans

Select the correct answer using the codes given below:

- (a) 1 and 3 only
- (b) 1 and 2 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

Correct Answer: A

Explanation:

- Typhoons occur in the China sea;
- Tropical cyclones occur in the Indian Ocean;
- Hurricanes in West Indies;
- Tornadoes in Guinea lands of West Africa and Southern USA in which the local name of whirl-wind is often applied;
- Willy willies occur in North Western Australia.

72. Consider the following statements about a particular type of soil:

1. Such soils are more common in piedmont plains such as Duars, Chos and Terai.
2. According to their age, they can be classified as Bangar and Khadar.
3. These soils extend in Rajasthan and Gujarat through a narrow corridor.
4. It can be found in the eastern coastal plains particularly in the deltas of the Mahanadi and Godavari.

The above statements refer/refers to?

- (a) Red and Yellow Soil
- (b) Alluvial Soil
- (c) Black Soil
- (d) Laterite Soil

Correct Answer: B

ANSWER KEY OF UPSC MOCK TEST IV

Explanation:

Alluvial soil is the most widely spread and important soil. In fact, the entire Northern plains are made of alluvial soil. This has been deposited by three important Himalayan River systems: the Indus, the Ganga and the Brahmaputra.

73. Consider the following statements:

1. India is separated from Sri Lanka by Gulf of Mannar.
2. India and Bhutan are connected through Bomdi La Pass.
3. Nepal shares its longest land frontier with India.

Select the correct statements using the codes given below:

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Correct Answer: C

Explanation:

Statement 2 is wrong: Bomdi La Pass connects Arunachal Pradesh with Lhasa (capital of Tibet). Jelep La Pass is located in Sikkim-tri junction of India-China-Bhutan. Statement 1 and 3 are correct.

74. A high 'demographic gap' will result in which of the following scenarios?

- (a) Very low sex ratio
- (b) Majority of adult population in the region
- (c) Population explosion
- (d) All of the above

Correct Answer: C

Explanation:

- A high 'demographic gap' appears when the gap between deaths and births grows wider: there is a decline in death rates, but not a proportionate decrease in birth rates. So, people are dying less and are being born more.
- Demographic transition passes through 3 phases.

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- The above given scenario happens in second phase.
- A consequence of decline in mortality in stage 2 is an increasingly rapid rise in population growth (population explosion) as the gap between deaths and births grow wider.
- This change in population occurred in North Western Europe during the 19th century due to the Industrial Revolution.

75. Which among the following statements is incorrectly stated?

- (a) Sirocco is a hot, dry dusty wind coming from Sahara Desert
- (b) Mistral is a cold wind from the north rushing down towards Europe
- (c) Berg Wind is hot dry wind is south eastern Africa
- (d) Harmattan are cold winds blowing in winters in Brazil

Correct Answer: D

Explanation:

Harmattan is a dry and dusty wind that blows in the *West Africa*. Locally called '*the doctor*' because their relative humidity rarely goes above 30% and provide a welcome relief from the damp air by increasing the rate of evaporation with resultant cooling effect.

76. Which of the following pairs is/are correctly matched?

Soil conservation method –	Description
1. Minimum tillage farming:	ploughing only to that depth which is needed for quick seed germination
2. No-till farming:	ploughing only along edges of croplands
3. Mulching:	covering the surface area of soil by an organic matter

Select the correct answer using the codes given below:

- (a) 1 only
- (b) 1 and 3 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

Correct Answer: B

Explanation:

Statement 1 and 3 are correct.

Statement 2 is wrong: no till farming (also called zero tillage or direct drilling) is a way of growing crops or pasture from year to year without disturbing the soil through tillage.

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77. Consider the following statements:

1. Ganga comes into existence when Alaknanda confluences with Bhagirathi at Devprayag.
2. Gomati and Ghaghara are the right bank tributaries of Ganga.

Select the correct statement(s) using the codes given below:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Correct Answer: A

Explanation:

Statement 1 is correct: Alaknanda and Bhagirathi rivers meet at devprayag and take the name Ganga.
Statement 2 is wrong: Gomti and Ghaghara are left Bank tributaries of Ganga.

78. The model of demographic transition helps us to understand the relationship between:

- (a) Social changes and patterns of population growth
- (b) Historical patterns of development between fertile and non-fertile regions.
- (c) Patterns of population growth and economic development
- (d) History of migration and geographical reasons for the same

Correct Answer: C

Explanation:

Demographic transition refers to the transition from high birth and death rates to lower birth and death rates as a country develops from a pre-industrial to industrialized economic system. It helps us understand the relationship between the patterns of population growth and economic development.

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79. Why tank irrigation is more practiced in South India as compared to other forms of irrigation like canal and wells?

1. It is difficult to dig canals and wells due to undulating relief and hard rock structure.
2. Low percolation of rain water due to hard rock structure.
3. Many rivers of South India are seasonal in nature.
4. Population and agricultural fields are scattered which makes canal irrigation economically unviable.

Select the correct answer using the codes below:

- (a) 1, 2 and 3 only
- (b) 1 and 4 only
- (c) 2 and 3 only
- (d) 1, 2, 3 and 4

Correct Answer: D

Explanation:

All the statements given are correct.

80. Which of the following pairs are correctly matched?

Region:	Vegetation
1. Western Himalayas:	Broad leaved temperate trees
2. Eastern Himalayas:	Rhododendrons
3. Barak Valley:	Evergreen forests

Select the correct answer using the code given below:

- (a) 1 and 3 Only
- (b) 2 and 3 Only
- (c) 1 and 2 only
- (d) 1, 2 and 3

Correct Answer: D

Explanation: All are correctly matched.

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81. Which of the following is true about Himalayan rivers?

1. Himalayan rivers are antecedent ones.
2. These are in their old stage.
3. Their sources of water are in glaciers only.

Select the correct answer using the codes below:

- (a) 1 only
- (b) 2 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

Correct Answer: A

Explanation:

- Statement 2 is wrong: these are in their youthful stage cutting deep gorges in mountainous region.
- Statement 3 is wrong: both glaciers and rainfall are their sources.

82. Which of the following is/are correctly matched?

Passage : Separates

1. Duncan Passage : Lakshadweep & Maldives
2. 8 degree channel : Andaman & Nicobar
3. 10 degree channel : South Andaman & Little Andaman
4. Great Channel : Indonesia & Nicobar

Select the correct answer from the codes given below:

- (a) 1, 2, 3 and 4
- (b) 2 and 3 only
- (c) 4 only
- (d) None are correctly matched

Correct Answer: C

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Explanation:

- 6-degree channel-separates Nicobar and Sumatra (Indonesia). *6-degree channel also called great channel*
- 8-degree channel-separates Lakshadweep and Maldives.
- 9-degree channel- separates Minicoy and other Lakshadweep Islands.
- 10 degrees - separates Andaman and Nicobar
- 11-degree channel(in Lakshadweep)- separates Amino and Cannanore
- Duncan channel- separates South Andaman and little Andaman.
- Coco channel- separates Andaman and Coco Island (Myanmar)

83. Consider the following mountain ranges:

1. Ajanta Range
2. Vindhya Range
3. Sahyadri Range
4. Satpura Range

What is the correct sequence of the above mountain ranges from North to South?

- (a) 1 - 2 - 3 - 4
- (b) 2 - 4 - 1 - 3
- (c) 2 - 3 - 1 - 4
- (d) 1 - 4 - 3 - 2

Correct Answer:B

Explanation:

From North to South:

Vindhyas- Satpuras- Ajanta- Sahyadris.
Refer physical map of India.

84. Which among the following ocean currents flow in the Atlantic Ocean?

1. Labrador Current
2. Agulhas Current
3. Benguela Current
4. Humboldt Current

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Select the correct answer using the codes given below:

- (a) 1 and 3 only
- (b) 1 and 2 only
- (c) 1, 2 and 3 only
- (d) 1, 3 and 4 only

Correct Answer: A

Explanation:

- Labrador current: North Atlantic Ocean
- Agulhas current: South West Indian Ocean
- Benguela current: South Atlantic Ocean
- Humboldt current (Peru current): South Pacific Ocean

85. Proportion of literate population of a country known as *literacy* is an indicator of its socio-economic development. Literacy in India will necessarily increase if:

- (a) Total years of schooling for the entire population increases
- (b) Sanitation and health facilities are improved
- (c) Economic growth rate is high
- (d) More children pass the primary school in the country

Correct Answer: D

Explanation:

Option A is not necessarily correct: total years of schooling may increase for the already literate population. In India literacy rate denotes the percentage of population above 7 years of age who is able to read, write and have the ability to do arithmetic calculations with understanding. Thus, D is the most appropriate answer.

86. Identify the crop having the following features:

1. It is a tropical as well as subtropical crop.
2. It grows well in a region with temperature of 21°C to 27°C and an annual rainfall between 75cm - 100cm.
3. It's cultivation is highly laborious.

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Select the correct answer using the codes given below:

- (a) Jute
- (b) Barley
- (c) Rice
- (d) Sugarcane

Correct Answer: D

Explanation:

Sugarcane is a plantation crop that is highly labourious to grow. It is a tropical as well as a subtropical crop. It grows well in hot and humid climate, with a temperature of 21 degree Celsius to 27 degree Celsius and an annual rainfall between 75 cm and 100 cm.

87. Which of the following statements regarding "protostar" is correct?

- (a) These are stars which came into being by breaking of tonnes of matter out of the sun caused by a passing star.
- (b) These are hot and slowly moving magnetic fields which lead to formation of stars.
- (c) These are clouds of dust and gas spiralled together by the force of gravity
- (d) These are stars which came into being by breaking of the planets.

Correct Answer: C

Explanation:

Protostar is an early stage in the evolution of a star; after the beginning of the collapse of the gas cloud from which it is formed, but before sufficient contraction has occurred to permit initiation of nuclear reactions at its core.

88. Consider the following pairs related to the Sea Ports in India:

- | | |
|-------------------------|---------------------------------------|
| 1. Vishakhapatnam Port: | A landlocked harbour |
| 2. Mormugao Port: | Known as 'Queen of the Arabian Sea' |
| 3. Kochi Port: | Located on the head of Vembanad Kayal |

ANSWER KEY OF UPSC MOCK TEST IV

Which of the above is/are correctly matched?

- (a) 1 only
- (b) 1 and 2 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Correct Answer: C

Explanation:

Kochi port is known as *Queen of the Arabian Sea*.

89. Which of the following statements is/are correct in the context of occurrence of coal in India?

1. About 80% of the coal deposits in India are of bituminous type and is of coking grade.
2. Jharia is the largest coal field in India, followed by Raniganj.
3. The river valleys associated with coal are Godavari, Mahanadi and Son.

Select the correct answer using the codes given below:

- (a) 1 only
- (b) 3 only
- (c) 2 and 3 only
- (d) 1 and 3 only

Correct Answer: C

Explanation:

About 80% of the coal deposits in India is of bituminous type and is of 'non-coking' grade. This is the reason why India imports coking coal.

Rest all statements are correct.

90. Which among the following get affected by the temperature?

1. Moisture carrying capacity of the air
2. Degree of stability of the atmosphere
3. Cloud formation and precipitation

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Select the correct answer using the codes given below:

- (a) 1 and 2 only
- (b) 3 only
- (c) 1 only
- (d) 1, 2 and 3

Correct Answer: D

Explanation:

- Temperature affects moisture carrying capacity of air. Dry hot air has better moisture carrying capacity than cold air, which is denser compared to dry hot air.
- Stability of atmosphere refers to normal balance of atmosphere in a place. With change in temperature, precipitation and evaporation of a place are affected. Sudden changes sometimes bring storms and thunder.
- Their water holding capacity depends on temperature and hence it affects precipitation and evaporation process and eventually cloud forming capacity of air.

91. Which of the following statements are correct regarding occupation structure of a population?

1. Developed countries have bulk of working population in secondary and tertiary sector.
2. Developing and underdeveloped countries have bulk of their working population in primary and quaternary sector.

Consider the correct code from following options:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Correct Answer: A

Explanation:

In primitive and developing economies, majority of population is engaged in agriculture, fisheries and other primary activities. As the economy expands, employment begins to grow in labour intensive secondary and tertiary sector.

Statement 1 is correct.

Statement 2 is wrong: developing and underdeveloped economy will have most of their population in primary sector.

ANSWER KEY OF UPSC MOCK TEST IV

92. Which of the following are considered as extensions of Peninsular Block?

1. Karbi-Anglong plateau
2. Meghalaya Plateau
3. Aravalli Hills
4. Patkai Bum

Select the correct answer using the code given below:

- (a) 1, 2 and 3 only
- (b) 1 and 2 only
- (c) 3 and 4 only
- (d) 1, 2, 3 and 4

Correct Answer: A

Explanation:

Patkai Bum forms part of the Eastern hills and mountains (Purvanchal range) and not Peninsular block.

93. Match the following List-I with List-II:

List-I (Tributaries)	List-II (Parent rivers)
1. Pranhita	A. Yamuna
2. Koyna	B. Son
3. Betwa	C. Krishna
4. Rihand D. Godavari	

Select the correct answer using the codes below:

- (a) 1-D, 2-C, 3-A, 4-B
- (b) 1-D, 2-C, 3-B, 4-A
- (c) 1-C, 2-A, 3-D, 4-B
- (d) 1-C, 2-D, 3-A, 4-B

Correct Answer: A

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Explanation:

Self-explanatory: refer NCERT

94. As we go up in the mountains, we find it difficult to breathe. Which of the following is the reason behind this?

- (a) With decrease in temperature, air becomes denser at higher latitudes.
- (b) The air becomes thinner at higher altitudes.
- (c) The air pressure is low at higher altitudes.
- (d) Both (b)- and (c)

Correct Answer: D

Explanation:

Atmosphere exists in layer around the earth. Due to stratification and gravity, the density of air decreases as we go up in the mountains. Air becomes thinner at higher latitudes and therefore one finds it difficult to breathe as one goes up. This is because of low pressure i.e. lesser air pressing down from above.

95. Consider the following statements:

1. Kashmir valley lies between Great Himalayas and Ladakh range.
2. Jhelum river flows through Kashmir valley.
3. Tso Moriri and Pangong Tso are salt-water lakes found in Ladakh.

Which of the statements given above is/are correct?

- (a) 2 only
- (b) 1 and 3 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

Correct Answer: C

Explanation:

Statement 2 and 3 are correct.

Statement 1 is wrong: Kashmir Valley lies between Pir Panjal range and Great Himalayan range. Ladakh range lies further north of Great Himalayan range.

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96. Which of the following are the 'push factors' of Migration?

1. Poor living conditions
2. Political turmoil
3. Better job opportunities
4. Epidemics

Select the correct answer using the code given below:

- (a) 1 and 4 only
- (b) 2 and 3 only
- (c) 1, 2 and 4 only
- (d) 1, 2, 3 and 4

Correct Answer: C

Explanation:

There are two sets of factors that influence migration:

Push factors make the place of origin seem less attractive, for reasons like unemployment, poor living conditions, political turmoil, unpleasant climate, natural disasters, epidemics and socio-economic backwardness.

Pull factors make the place of destination seem more attractive than the place of origin, for reasons like better job opportunities and living conditions, peace and stability, security of life and property and pleasant climate.

97. Consider the following matches of minerals with their deposits in India:

1. Mica: Jharkhand
2. Copper: Andhra Pradesh
3. Gold: Karnataka

Select the correct answer using the codes below:

- (a) 1 and 2 only
- (b) 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Correct Answer: D

Explanation: All are correctly matched.

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98. Consider the following statements:

1. It is India's largest inland saltwater lake.
2. It is geographically a landlocked river basin.
3. It has been designated as a Ramsar site.

The above description refers to:

- (a) Bhimtal Lake
- (b) Bhitarkanika Lake
- (c) Sambhar Lake
- (d) Shakambari Lake

Correct Answer: C

Explanation: All the statements refer to Sambhar Lake.

99. With respect to maximum absolute area under forest arrange the following states in descending order:

1. Maharashtra
2. Chhattisgarh
3. Arunachal Pradesh
4. Odisha
5. Madhya Pradesh

- (a) 5-2-1-3-4 (b) 5-1-3-4-2 (c) 5-2-4-3-1 (d) 5-3-2-4-1

Correct Answer: D

Explanation: Refer India State of Forest Report (ISFR) 2019.

100. Mangrove Forests in India are found in which of the following states:

1. Gujarat
2. Arunachal Pradesh
3. Tamil Nadu
4. Andaman & Nicobar Islands
5. Mizoram
6. Andhra Pradesh

- (a) 12345 only
- (b) 234 only
- (c) 1345 only
- (d) 1346 only

Correct Answer: D

Explanation: Refer India State of Forest Report (ISFR) 2019