1 Astronomy

1. Consider the following statements regarding asteroids:
   1. Asteroids are rocky debris of varying sizes orbiting the Sun.
   2. Most of the asteroids are small but some have diameter as large as 1000 km.
   3. The orbit of asteroids lies between orbits of Jupiter and Saturn.

   Which of the statements given above are correct?
   (a) 1 and 2 only (b) 2 and 3 only
   (c) 1 and 3 only (d) 1, 2 and 3
2. Which one of the following statements is correct with reference to our solar system?
   (a) The earth is the densest of all the planets in our solar system.
   (b) The predominant element in the composition of Earth is silicon.
   (c) The Sun contains 75 percent of the mass of the solar system.
   (d) The diameter of the sun is 190 times that of the Earth.
3. Match List-I with List-II and select the correct answer using the codes given below the list:

List-I (Special characteristic)	**List-II (Name of Planet)**
A. Smallest planet of the solar system	1. Mercury
B. Largest planet of the solar system	2. Venus
C. Planet second from the Sun in the Solar system	3. Jupiter
D. Planet nearest to the Sun	4. Pluto
	5. Saturn

Codes:

	A	B	C	D
(a)	2	3	5	1
(b)	3	5	1	2
(c)	4	1	2	3
(d)	4	3	2	1

4. Diamond Ring is a phenomenon observed
   (a) at the start of a total solar eclipse.
   (b) at the end of a total solar eclipse.
   (c) only along the peripheral regions of the totality trail.
   (d) only in the central regions of the totality trail.
5. The tail of a comet is directed away from the sun because
   (a) the comet rotates around the sun, the lighter mass of the comet is pushed away due to the centrifugal force alone.
   (b) the comet rotates, the lighter mass of the comet is attracted by some star situated in the direction of its tail.
   (c) The radiation emitted by the sun exerts a radial pressure on the comet throwing its tail away from the Sun.
   (d) The tail of the comet always exists in the same orientation.
6. Consider the following two statements, one labeled as the Assertion (A) and the other as Reason (R). Examine these two statements carefully and select the correct answer using the codes given below:
   Assertion (A): The same face of the Moon is always presented to the Earth.
   Reason (R): The Moon rotates about its own axis in days which is about the same time that it takes to orbit the earth.

Codes:
(a) Both A and R are true and R is the correct explanation of A.
(b) Both A and R are true, but R is not the correct explanation of A.
(c) A is true, but R is false.
(d) A is false, but R is true.

7. Consider the following two statements. One labeled as the Assertion (A) and other as Reason (R). Examine these two statements carefully and select the correct answer by using the codes given below.

Assertion (A): Existence of human life on Venus is highly improbable.

Reason (R): Venus has extremely high level of carbon dioxide in its atmosphere.

Codes:
(a) Both A and R are true and R is the correct explanation of A.
(b) Both A and R are true, but R is not the correct explanation of A.
(c) A is true, but R is false.
(d) A is false, but R is true.

8. The term syzygy is referred to when
(a) The Earth is at perihelion and the Moon at perigee.
(b) The Earth is at aphelion and the Moon at apogee.
(c) The Moon and the Sun are at right angles with reference to the Earth.
(d) The Moon, Sun and Earth lie along a straight line.

9. Consider the following two statements, one labelled as the Assertion (A) and the other as Reason (R). Examine these two statements carefully and select the correct answer by using the codes given below:

Assertion (A): To orbit around Sun, the planet Mars takes lesser time than time taken by the Earth.

Reason (R): The diameter of the planet Mars is less than that of the Earth.

Codes:
(a) Both A and R are true and R is the correct explanation of A.
(b) Both A and R are true, but R is not the correct explanation of A.
(c) A is true, but R is false.
(d) A is false, but R is true.

10. The twinkling of a star is due to
(a) the variation in the intensity of light emitted by it with time.
(b) the variation in the composition of the star with time.
(c) the transit of other celestial objects across the line of sight.
(d) the atmospheric refraction of starlight.

11. Which of the following phenomenon is/are the effect of the rotation of the Earth?
1. Apparent movement of the Sun, the Moon and the Stars.
2. Flatness of the poles and bulge at the equator.
3. Occurrence of sunrise, noon and sunset.
4. Magnetic field of the Earth.

Select the correct answer by using the codes given below:
(a) 1 and 2 only (b) 1 and 3 only
(c) 2 and 3 only (d) 1, 2, 3 and 4

12. What is meant by the eclipse of Moon?
(a) It occurs when the Earth comes between the Sun and the Moon and the centers of all three are on the same straight line.
(b) It is path along which the moon revolves.
(c) For any place, it is the average angle made by a line drawn from the moon to place and horizontal at midnight.
(d) When the Moon comes between the Sun and the Earth, it causes the shadows of the Moon to fall on Earth.

13. Consider the following statements:
1. The albedo of an object determines its visual brightness when viewed with reflected light.
2. The albedo of Mercury is much greater than the albedo of the Earth.

Which of the statement(s) given above is/are correct?
(a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2

14. We always see the same face of the Moon because
    (a) it rotates at the same speed as the Earth around the Sun.
    (b) it takes equal time for revolution around the Earth and rotation on its own axis.
    (c) it revolves on its axis in a direction opposite to that of the Earth.
    (d) it is smaller than the Earth.
15. The inexhaustible source of energy of the stars is due to
    (a) decay of radioactive elements.
    (b) conversion of Hydrogen to Helium.
    (c) conversion of Helium to Hydrogen.
    (d) excess of oxygen that helps burning and release of energy.
16. Consider the following statements
    1. The Earth receives the Sun's energy at the infrared end of the spectrum.
    2. The Earth re-radiates the Sun's heat as ultraviolet energy.

    Which of the statement(s) given above is/are correct?
    (a) 1 only (b) 2 only
    (c) Both 1 and 2 (d) Neither 1 nor 2
17. Consider the following statements regarding asteroids and comets?
    1. Asteroids are small rocky planetoids, while comets are formed of frozen gases held together by rocky and metallic material.
    2. Asteroids are found mostly between the orbits of Jupiter and Mars, while comets are found mostly between Venus and Mercury.
    3. Comets show a perceptible glowing tail, while asteroids do not.

    Which of the statement(s) given above is/are correct?
    (a) 1 only (b) 1 and 2 only
    (c) 1 and 3 only (d) 1, 2 and 3
18. The Blue Moon phenomenon occurs
    (a) when two full moons occur in the same month.
    (b) when two full moons appear in the same month thrice in a calendar year.
    (c) when four full moons appear in two consecutive months of the same calendar year.
    (d) None of the above
19. Consider the following two statements, one labelled as the Assertion (A) and other as Reason (R). Examine these two statements carefully and select the correct answer by using the code given below:

    Assertion (A): Comets revolve round the sun only in long elliptical orbit.

    Reason (R): A comet develops a tail when it gets close to the sun.

    Codes:
    (a) Both A and R are true and R is the correct explanation of A.
    (b) Both A and R are true, but R is not the correct explanation of A.
    (c) A is true, but R is false.
    (d) A is false, but R is true.
20. The eclipse of Sun occurs
    (a) when the Moon comes between the Sun and the Earth.
    (b) when the Earth comes between the Sun and Moon.
    (c) when the Sun comes between the Earth and Moon.
    (d) None of these
21. During the Venus transit, the planet appeared as a tiny black circle moving on the Sun. The black colour on the Sun is because the planet :
    (a) Obstructed all light from the Sun.
    (b) Is black in colour.
    (c) Was invisible due to bright rays from the Sun.
    (d) Behaved as a black hole during its transit.
22. Consider the following statements:
    1. The Earth is nearest to the Sun on about January 3.
    2. Earth is farthest from the Sun on about July 4.

    Which of the above statements is/are correct?
    (a) 1 only (b) 2 only
    (c) Both 1 and 2 (d) Neither 1 nor 2

23. Match List-I with List-II and select the correct answer using the codes given below the lists

List-I (Planets)		List-II (Satellites)
A.	Mars	1. Tethys
B.	Jupiter	2. Deimos
C.	Saturn	3. Europa
D.	Uranus	4. Titania

Codes:

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

24. Consider the following statements:
    1. The nearest large galaxy of Milky Way is the Andromeda galaxy.
    2. The Sun's nearest known star is a red dwarf star called Proxima Centauri, at a distance of 4.3 light years away.

    Which of the above statement(s) is/are correct?
    (a) 1 only (b) 2 only
    (c) Both 1 and 2 (d) Neither 1 nor 2

25. Consider the following two statements, one labelled as the Assertion (A) and other as Reason (R). Examine these two statements carefully and select the correct answer by using the codes given below:

    Assertion (A): The planet Neptune appears blue in colour.

    Reason (R): The presence of Methane gas in the atmosphere of Neptune is responsible for its colour.

    Codes:
    (a) Both A and R are true and R is the correct explanation of A.
    (b) Both A and R are true, but R is not the correct explanation of A.
    (c) A is true, but R is false.
    (d) A is false, but R is true.

26. Consider the following statements:
    1. Since Venus is seen in the East in morning and in the West in evening. It is called 'Morning star' as well as 'Evening star'.
    2. The Earth looks blue when seen from the space due to the presence of large amount of water, hence it is called 'Blue Planet'.

    Which of the above statements is/are correct?
    (a) 1 only (b) 2 only
    (c) Both 1 and 2 (d) Neither 1 nor 2

27. Consider the following two statements, one labelled as the Assertion (A) and other as Reason (R). Examine these two statements carefully and select the correct answer by using the codes given below:

    Assertion (A): Venus is the brightest object in the sky after the Sun.

    Reason (R): Venus is the second planet from the Sun in our solar system.

    Codes:
    (a) Both A and R are true and R is the correct explanation of A.
    (b) Both A and R are true, but R is not the correct explanation of A.
    (c) A is true, but R is false.
    (d) A is false, but R is true.

28. Consider the following statements:
    1. Our solar system is located in the orion arm of the Milky way galaxy, about two-third of the way out from the centre.
    2. The solar system formed from an interstellar cloud of dust and gas or nebulla about 4.6 billion years ago.

    Which of the above statements is/are correct?
    (a) 1 only (b) 2 only
    (c) Both 1 and 2 (d) Neither 1 nor 2

29. Consider the following statements:
    1. When the Sun, the Earth and the Moon are aligned in a straight line, the position is referred to as SYZYGY.
    2. When the Sun and Moon are in straight line, it results in spring tide.
    3. When the Sun and Moon are in right angle, it results in Neap tide.

    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

30. Consider the following two statements, one labelled as the Assertion (A) and other as Reason (R). Examine these two statements carefully and select the correct answer by using the codes given below:

Assertion (A): The tidal effect of Moon on the surface of Earth is less than that of Sun.

Reason (R): Moon's gravitational pull at Earth's surface is less compared to Sun's gravitational pull.

Codes:

(a) Both A and R are true and R is the correct explanation of A.
(b) Both A and R are true, but R is not the correct explanation of A.
(c) A is true, but R is false.
(d) A is false, but R is true.

31. There are two statements, one labelled as the Assertion (A) and other as Reason (R). Examine these two statements carefully and select the correct answer by using the codes given below:

Assertion (A): According to Nova hypothesis, Solar planets were formed because of explosion of Super Nova.

Reason (R): A star becomes Super Nova in that stage when it has lack of hydrogen element.

Codes:

(a) Both A and R are true and R is the correct explanation of A.
(b) Both A and R are true, but R is not the correct explanation of A.
(c) A is true, but R is false.
(d) A is false, but R is true.

32. Match List-I with List-II and select the correct answer using the codes given below the lists:

List-I (Planets)		**List-II (Satellites)**
A.	Earth	1. Tritan
B.	Jupiter	2. Titan
C.	Saturn	3. Ganymede
D.	Neptune	4. Moon

Codes:

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

33. Match List-I with List-II and select the correct answer from the codes given below the list:

	List-I		**List-II**
A.	Planet	1.	Moon
B.	Satellite	2.	Uranus
C.	Comet	3.	Mariner
D.	Artificial satellite	4.	Halley

Codes:

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

34. Consider the following statements:

1. Only two planets Venus and Uranus revolve around the Sun from east to west i.e., clockwise.
2. While other planets revolve around the Sun from west to east i.e., anti-clockwise.

Which of the above statements is/are correct?

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

35. Consider the following statements:

1. The Sun is the heart spot of the Solar system which is the source of energy of all organism of the earth.
2. The innermost layer of the Sun is called Corona.

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

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

36. Scientists have determined the temperature near the Earth's centre 1,000°C hotter than was reported in an experiment run 20 years ago at

(a) 6,000° Celsius
(b) 5,000° Celsius
(c) 4,000° Celsius
(d) None of these

37. Match the following

List-I (*Features*)		List-II (*Dates*)
A.	Vernal equinox	1. December 22
B.	Summer solstice	2. September 23
C.	Winter solstice	3. March 20
D.	Autumnal equinox	4. June 22

Codes:

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

38. Match the following

List-I (*Longitudes*)		List-II (*Dates*)
A.	Prime Meridian	1. 180° longitude
B.	Tropic of Cancer	2. 23½° N latitude
C.	International Date Line	3. 0° longitude
D.	Arctic Circle	4. 23½° S latitude
E.	Tropic of Capricorn	5. 66½° N latitude

Codes:

	A	B	C	D	E
(a)	2	4	5	1	3
(b)	3	2	1	5	4
(c)	3	1	4	5	2
(d)	3	4	5	2	1

39. Match column I with column II and select the correct answer using the code given below the columns:

(A)	Earth	(i)	Dwarf planet
(B)	Pluto	(ii)	Star
(C)	Moon	(iii)	Blue planet
(D)	Sun	(iv)	Satellite

(1) A-(iii), B-(i) C-(iv), D-(ii)
(2) A-(i), B-(ii), C-(iii), D-(iv)
(3) A-(iv), B-(iii), C-(ii), D-(i)
(4) A-(iii), B-(ii), C-(i), D-(iv)

40. Match column I with column II and select the correct answer using the code given below the columns:

Column I (Special characteristic)		Column II (Name of planet)
A.	Smallest planet of the solar system	(i) Mercury
B.	Largest planet of the solar system	(ii) Venus
C.	Planet second from the Sun in the solar system	(iii) Jupiter
D.	Planet nearest to the Sun	(iv) Pluto
		(v) Saturn

(a) A-(ii); B-(iii); C-(v); D-(i)
(b) A-(iii); B-(v); C-(i); D-(ii)
(c) A-(iv); B-(i); C-(ii); D-(iii)
(d) A-(iv); B-(iii); C-(ii); D-(i)

41. Which of the following statements in regard to the galaxy is correct?
(a) Numerous tiny bodies that move around the sun are called galaxies
(b) Galaxy is found between the orbits of Mars and Jupiter
(c) A galaxy is a huge system of billions of stars and clouds of dust and gases
(d) A galaxy does not have a sun

42. Match the planets with their properties and accordingly select the correct alternative:

Planet		Property
(A)	Saturn	(i) Longest year
(B)	Neptune	(ii) 71% water
(C)	Earth	(iii) Longest day
(D)	Venus	(iv) Having most moons

(a) A – iv, B – i, C – ii, D - iii
(b) A – iii, B – ii, C – iv, D - i
(c) A – ii, B – iv, C – i, D - iii
(d) A – iv, B – iii, C – ii, D - i

43. Global Positioning System (GPS) is associated with
1. determining latitude and longitude
2. constellation of satellites
3. US system of GPS and Russian system of GLONASS
4. navigation

Select the correct answer using the codes given below
(a) 1, 2 and 4 (b) 1 and 4
(c) 2 and 3 (d) All of these

44. The Earth is an oblate spheroid and not a perfect sphere. This is because
1. The Earth has a rotational motion and the rotational speed increases as one goes from the poles towards the equator.

2. The equator experiences greater gravitational pull from the sun.
3. The intensity of sunlight received at the equator is greater than that at the poles.

Select the correct answer using the codes given below

(a) Only 1 (b) 1 and 2
(c) Only 3 (d) All of these

45. Consider the following statements
1. The Earth does not move along its orbit at a constant rate.
2. The Earth moves fastest at perihelion and slowest at aphelion.

The above statements are true of which one of the following laws?

(a) Kepler's second law
(b) Newton's second law of motion
(c) Ohm's law
(d) Newton's law of gravitation

46. Which of the following factors influence ocean currents?
1. Rotation of the Earth
2. Air pressure and wind
3. Ocean water density
4. Revolution of the Earth

Select the correct answer using the codes given below

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

47. Which one of the following statements is/ are correct with regard to Milky Way?
1. It is a spiral galaxy.
2. The solar system resides in one of its spiral arms.

Select the correct answer using the code given below:

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

48. Which of the following statements is/are correct?
1. Lunar eclipse takes place when the Earth comes directly between the Sun and the Moon
2. Solar eclipse happens when the Moon comes directly between the Sun and the Earth
3. Lunar eclipse takes place when the Sun comes directly between the Earth and the Moon
4. Solar eclipse happens when the Earth comes directly between the Sun and the Moon

Select the correct answer using the code given below:

Code:

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

ANSWER KEY															
1.	(a)	**7.**	(a)	**13.**	(a)	**19.**	(b)	**25.**	(a)	**31.**	(b)	**37.**	(a)	**43.**	(d)
2.	(b)	**8.**	(d)	**14.**	(b)	**20.**	(a)	**26.**	(c)	**32.**	(c)	**38.**	(b)	**44.**	(a)
3.	(d)	**9.**	(d)	**15.**	(b)	**21.**	(d)	**27.**	(a)	**33.**	(a)	**39.**	(a)	**45.**	(a)
4.	(c)	**10.**	(d)	**16.**	(d)	**22.**	(c)	**28.**	(c)	**34.**	(c)	**40.**	(d)	**46.**	(b)
5.	(a)	**11.**	(d)	**17.**	(c)	**23.**	(b)	**29.**	(d)	**35.**	(a)	**41.**	(c)	**47.**	(c)
6.	(c)	**12.**	(d)	**18.**	(a)	**24.**	(c)	**30.**	(a)	**36.**	(a)	**42.**	(a)	**48.**	(a)

Hints & Solutions

1. (a) Asteroids are rocky debris of varying sizes orbiting the Sun. Most of the asteroids are small but some have diameter as large as 1000 km. There are millions of asteroids, many thought to be the shattered remnants of planetesimals, bodies within the young Sun's solar nebula that never grew large enough to become planets. The large majority of known asteroids orbit in the asteroid belt between the orbits of Mars and Jupiter, or are co-orbital with Jupiter. Asteroids vary greatly in size, from almost 1,000 km for the largest down to rocks just tens of metres across.
2. (b) The Earth is the densest of all the planets in our solar system. The density of the Earth is 5.513 g/cm^3. This is an average of all of the material on the planet.
3. (d) Smallest planet of the solar system is Pluto while the largest is Jupiter. Planet second from the Sun in the solar system is Venus; planet nearest to the Sun is Mercury.
4. (c) Diamond Ring is a phenomenon observed only along the peripheral regions of the totality trail. When the shrinking visible part of the photosphere becomes very small, Baily's beads will occur. These are caused by the sunlight still being able to reach Earth through lunar valleys. Totality then begins with the diamond ring effect, the last bright flash of sunlight.
5. (a) Because of the comet rotation around the sun, the lighter mass of the comet is pushed away due to the centrifugal force alone. When a comet comes close enough to the sun, the ice begins to melt at such a great pace that sublimation occurs. The sublimation of the ice that carries away dirt and rock causes the appearance of a large white fireball with a long tail. The layer that envelopes the comet is called the coma. A tail of dust particles, hydrogen, or ions extends more than a million miles away from the comet.
6. (c) The same side of the Moon always faces the Earth because the Moon spins once on its axis in exactly the same amount of time that the Moon revolves around the Earth, or once every 29 days. The Moon and Earth have been tidally locked in this configuration for millions of years.
7. (a) Existence of human life on Venus is highly improbable because Venus has extremely high level of carbon dioxide in its atmosphere.
8. (d) The term SYZYGY is referred to when the moon, sun and earth lie along a straight line. As seen from the Earth, a solar eclipse is a type of eclipse that occurs when the Moon passes between the Sun and Earth, and the Moon fully or partially blocks ("occults") the Sun. This can happen only at new moon, when the Sun and the Moon are in conjunction as seen from Earth in an alignment referred to as SYZYGY. In a total eclipse, the disk of the Sun is fully obscured by the Moon. In partial and annular eclipses only part of the Sun is obscured.
9. (d) The diameter of the planet Mars is less than that of the Earth. Mars has approximately half the diameter of Earth. It is less dense than Earth, having about 15% of Earth's volume and 11% of the mass. Its diameter is 6,779 kms.

10. (d) The twinkling of a star is due to the atmospheric refraction of starlight. The scientific name for the twinkling of stars is stellar scintillation (or astronomical scintillation). Stars twinkle when we see them from the Earth's surface because we are viewing them through thick layers of turbulent (moving) air in the Earth's atmosphere.
11. (d) All the given phenomena are the effect of the rotation of the earth. The Earth rotates from the west towards the east. As viewed from the North Star or polestar Polaris, the Earth turns counter-clockwise.
12. (d) Eclipse of moon occurs when the moon comes between the sun and the earth and it causes the shadow of the moon to fall on earth. A lunar eclipse occurs when the Moon passes directly behind the Earth into its umbra (shadow). This can occur only when the Sun, Earth, and Moon are aligned (in "SYZYGY") exactly, or very closely so, with the Earth in the middle. Hence, a lunar eclipse can only occur the night of a full moon.
13. (a) The albedo of an object determines its visual brightness when viewed with reflected light. Albedo is the fraction of solar energy (shortwave radiation) reflected from the Earth back into space. It is a measure of the reflectivity of the earth's surface.
14. (b) We always see the same face of moon because it takes equal time for revolution around the earth and rotation on its own axis.
15. (b) The inexhaustible source of energy of the stars is due to conversion of Hydrogen to Helium. In the interior of a star, the particles move rapidly in every direction because of the high temperatures present. Every so often a proton moves close enough to a nucleus to be captured, and a nuclear reaction takes place. Only protons of extremely high energy (many times the average energy in a star such as the Sun) are capable of producing nuclear events of this kind. A minimum temperature required for fusion is roughly 10 million K. Since the energies of protons are proportional to temperature, the rate of energy production rises steeply as temperature increases.
17. (c) Asteroids are small rocky planetoids, while comets are formed of frozen gases held together by rocky and metallic material. Comets show a perceptible growing tail, while asteroids do not.
18. (a) The Blue Moon phenomenon occurs, when two full moons occur in the same month. A blue moon is an extra full moon that appears in a subdivision of a year, either the third of four full moons in a season or, recently, a second full moon in a month of the common calendar. The phrase has nothing to do with the actual color of the moon, although a literal "blue moon" (the moon appearing with a tinge of blue) may occur in certain atmospheric conditions; e.g., when there are volcanic eruptions or when exceptionally large fires leave particles in the atmosphere.
19. (b) Comets revolve round the sun only in long elliptical orbit. A comet develops a tail when it gets close to the sun.
20. (a) The eclipse of sun occurs when the moon comes between the sun and the earth.
21. (d) The black color on the sun is because the planet behaved as a black hole during its transit. A transit of Venus across the Sun takes place when the planet Venus passes directly between the Sun and Earth (or another planet), becoming visible against (and hence obscuring a small portion of) the solar disk. During a transit, Venus can be seen from Earth as a small black disk moving across the face of the Sun. The duration of such transits is usually measured in hours (the transit of 2012 lasted 6 hours and 40 minutes).
22. (c) The earth is nearest to the sun on about January 3rd. Earth is farthest from the sun on about 4th July.
23. (b) Deimos is the satellite of Mars. Europa is the satellite of Jupiter. Tethys is the satellite of Saturn. Titan is the satellite of Uranus.
24. (c) The nearest large galaxy of Milky Way is the Andromeda galaxy. The Andromeda Galaxy is a spiral galaxy approximately 2.5 million light years from Earth in the Andromeda constellation. Also known as Messier 31, M31, or NGC 224, the sun's nearest known star is a red dwarf star called proxima centauri. Proxima Centauri is a red dwarf about 4.24 light years from the Sun, inside the G-cloud, in the constellation of Centaurus.
25. (a) The planet Neptune appears blue in colour. The presence of methane gas in the atmosphere of Neptune is responsible for its colour. Neptune is the eighth and farthest planet from the Sun in the Solar System. It is the fourth largest planet by diameter and the third largest by mass. Among the gaseous planets in the solar system, Neptune is the most dense. Neptune is 17 times the mass of Earth.

26. (c) The earth looks blue when seen from the space due to the presence of large amount of water.

27. (a) Venus is the brightest object in the sky after the sun. Venus is the second planet from the sun in our solar system.

28. (c) Our solar system is located in the orion arm of the milky way galaxy, about two-third of the way out from the centre. The sun is about 26,000 light-years from the center of the Milky Way Galaxy, which is about 80,000 to 120,000 light-years across (and less than 7,000 light-years thick). We are located on one of its spiral arms, out towards the edge. It takes the sun (and our solar system) roughly 200-250 million years to orbit once around the Milky Way. In this orbit, we (and the rest of the Solar System) are traveling at a velocity of about 155 miles/sec (250 km/sec).

31. (b) According to Nova hypothesis, Solar planets were formed because of explosion of Super Nova. A star becomes Super Nova in that stage when it has lack of hydrogen elements. A supernova happens where there is a change in the core, or center, of a star. A change can occur in two different ways, with both resulting in a supernova.

The first type of supernova happens in binary star systems. Binary stars are two stars that orbit the same point. One of the stars, a carbon-oxygen white dwarf, steals matter from its companion star. Eventually, the white dwarf accumulates too much matter. Having too much matter causes the star to explode, resulting in a supernova.

The second type of supernova occurs at the end of a single star's lifetime. As the star runs out of nuclear fuel, some of its mass flows into its core. Eventually, the core is so heavy that it cannot withstand its own gravitational force. The core collapses, which results in the giant explosion of a supernova. The sun is a single star, but it does not have enough mass to become a supernova.

32. (c) Moon is the satellite of Earth. Ganymede is the satellite of Jupiter. Tritan is the satellite of Saturn. Titan is the satellite of Neptune.

33. (a) Uranus is a planet. Moon is a satellite. Halley is a comet. Mariner is a artificial satellite. The Mariner program was a program conducted by the American space agency NASA in conjunction with Jet Propulsion Laboratory (JPL) that launched a series of robotic interplanetary probes designed to investigate Mars, Venus and Mercury from 1962 to 1973. The program included a number of firsts, including the first planetary flyby, the first pictures from another planet, the first planetary orbiter, and the first gravity assist maneuver.

34. (c) Only two planets Venus and Uranus revolve around the sun from east to west while other planets revolve around the sun from west to east.

35. (a) The sun is the heart spot of the solar system which is the source of energy of all organism of the earth. The Sun produces energy by the nuclear fusion of hydrogen into helium in its core. It means that, since there is a huge amount of hydrogen in the core, these atoms stick together and fuse into a helium atom. This energy is then radiated out from the core and moves across the solar system.

36. (a) These measurements confirm geophysical models that say that the temperature difference between the solid core and the mantle above must be at least 1,500° C to explain why the earth has a magnetic field. The research team, which was led by Agnes Dewaele from the CEA, a French technological research organisation, used X-rays from the European Synchrotron Radiation Facility (ESRF) in Grenoble, France, as a key investigating tool.

37. (a) As Earth revolves around the Sun, there are two moments each year when the Sun is exactly above the equator. These moments — called equinoxes — occur around March 20 or 21 and September 22 or 23. Equinox literally means "equal night," since the length of day and night is nearly equal in all parts of the world during the equinoxes. When the Northern Hemisphere starts to tilt toward the sun in spring, the Southern Hemisphere starts to tilt away from the sun, signaling the start of fall. Thus, in the Southern Hemisphere, the March equinox is called the autumnal equinox, and the September equinox is called the vernal equinox.

The summer solstice occurs when the tilt of a planet's semi-axis, in either the northern or the southern hemisphere, is most inclined toward the star (sun) that it orbits. Earth's maximum axial tilt toward the sun is 23° 26'. This happens twice each year, at which times the sun reaches its highest position in the sky as seen from the north or the south pole.

The summer solstice occurs during a

hemisphere's summer. This is the northern solstice in the northern hemisphere and thesouthern solstice in the southern hemisphere. Depending on the shift of the calendar, the summer solstice occurs some time between June 20 and June 22 in the northern hemisphere[2][3] and between December 20 and December 23 each year in the southern hemisphere.

Winter solstice is an astronomical phenomenon which marks the shortest day and the longest night of the year. Winter solstice occurs for the Northern Hemisphere in December and for the Southern Hemisphere in June. The point at which the Sun's path crosses the celestial equator moving from north to south is called the autumnal equinox. the equinox in autumn, on about 22 September in the northern hemisphere and 20 March in the southern hemisphere.

38. (b) A prime meridian is a meridian (a line of longitude) in a geographical coordinate system at which longitude is defined to be 0°. A prime meridian and its opposite in a 360°-system, the 180th meridian (at 180° longitude), form a great circle. This great circle divides the sphere, e.g., the Earth, into two hemispheres.

The Tropic of Cancer, also referred to as the Northern Tropic, is the most northerly circle of latitude on the Earth at which the Sun may appear directly overhead at its culmination.

The International Date Line (IDL) is an imaginary line of longitude on the Earth's surface located at about 180 degrees east (or west) of the Greenwich Meridian.

ArcticCircle is an imaginary circle round the earth, parallel to the equator, at latitude66° 32′ N; it marks the northernmost point at which the sun appearsabove the level of the horizon on the winter solstice.

ROPIC OF CAPRICORN is the parallel of latitude that is approximately 23½ degrees south of the equator and that is the southernmost latitude reached by the overhead sun

40. (d) A. The smallest planet of the solar system is – Pluto

B. The largest planet of the solar system is – Jupiter

C. The planet second from the sun in the solar system is – Venus

D. Planet nearest to the sun – Mercury

41. (c) A galaxy is a huge system of billions of stars and clouds of dust and gases.

43. (d) The Global Positioning System (GPS) is a space-based satellite navigation systems that provides and time information in all weather, anywhere in the Earth.

	GPS	**Country**
1.	GPS	USA
2.	GLONASS	Russia
3.	Galileo	Europe
4.	Compass	China
5.	Gagan	India

44. (a) The shape of the Earth is very close to that of an oblate spheroid, a sphere flattered along the axis from pole to pole such that there is bulge around equator. This bulge results from the rotation of the Earth and causes the diameter at the equator to be 43 km large than the pole to pole diameter.

45. (a) Kapler's law give a description of the motion of planets around the Sun. Kepler's are laws are

1. The orbit of every planet is an ellipse with the Sun at one of two faces.
2. A line joining a planet and the Sun sweeps out equal areas during intervals of time.

46. (b) A ocean current is a continuous, directed movement of ocean water generated by the forces acting upon this mean flow, such as breaking waves, wind, coriolis effect, cabbeling, temperature and salinity differences and tides caused by the gravitational pull of the Moon and the Sun.

47. (c) The Milky Way glaxy is the home of our solar system. It is very difficult to study this glaxy because the solar system is located within it. It seems to be a spiral glaxy.

48. (a) Lunar eclipse takes place when the Earth comes directly between the Sun and the Moon. Solar eclipse happens when the Moon comes directly between the Sun and the Earth. Lunar eclipse takes place when the Sun comes directly between the Earth and the Moon.

2 Physical Geography

1. Consider the following statements and select the correct answer from the codes given below:
   Assertion (A): The polar front theory states that masses of relatively, warm and cold air are brought into contact.
   Reason (R): These masses are known after their source regions.
   Codes:
   (a) Both A and R are correct and R is the correct explanation of A.
   (b) Both A and R are correct, but R is not the correct explanation of A.
   (c) A is true, but R is false.
   (d) R is true, but A is false.
2. Which one of the following is called marine snowfall?
   (a) Fall of snowflakes on sea surface.
   (b) Fall of hail on sea surface.
   (c) Continuous fall of snow pillets on ocean floors.
   (d) Continuous fall of tiny marine sediments on ocean floors.
3. Which one of the following is correctly matched?
   (a) Rossby waves — Jet stream
   (b) El Nino — Strong monsoon
   (c) Index cycle — Walker circulation
   (d) Hadley cell — Mid-latitude cell
4. Consider the following statements and select the correct answer from the codes given below:
   Assertion (A): There has been equatorial counter current in every ocean of the world.
   Reason (R): Equatorial counter currents are formed by the piling of water in eastern part of the ocean by equatorial currents.
   Codes:
   (a) Both A and R are true and R is the correct explanation of A.
   (b) Both and R ar true, but R is not the correct explanation of A.
   (c) A is true, but R is false.
   (d) A is false, but R is true.
5. Which of the following concepts form basis for the Plate Tectonic Theory? Use the codes given below to select the correct answer:
   1. Continental drift 2. Isostasy
   3. Palaeomagnetism 4. Pole wandering
   Codes:
   (a) 1 and 2 (b) 2 and 3
   (c) 1 and 3 (d) 3 and 4
6. Which one of the following statements is not true about subsidence theory of Coral reefs?
   (a) The theory has been postulated by Charles Darwin.
   (b) According to the theory coral polyps grow both in shallow and deep oceanic waters.
   (c) Fringing reef, barrier reef and atolls are successive stages of coral reef development.
   (d) Reef building starts from submarine plate form.
7. Consider the following statements and select the correct answer from the codes given below:
   Assertion (A): Aridity is the distinctive characteristic of the deserts.
   Reason (R): They receive low rainfall and have high evaporation.
   Codes:
   (a) Both A and R are true and R is the correct explanation of A.
   (b) Both A and R are true, but R is not the correct explanation of A.
   (c) A is true, but R is false.
   (d) A is false, but R is true.

8. Which one of the following statements is true about tropopause?
   (a) It is about 5 km thick layer.
   (b) Its average height is about 10 km over the equator.
   (c) There is no seasonal variation in its height.
   (d) The temperature at its top is lowest over the equator and relatively higher over the poles.

9. Consider the following statements and select the correct answer from the codes given below:
   Assertion (A): Equatorial counter current is not found in the Indian ocean during summer season.
   Reason (R): During summer season south-west monsoon current is dominant in northern Indian Ocean.
   Codes:
   (a) Both A and R are true and R is the correct explanation of A.
   (b) Both A and R are true, but R is not the correct explanation of A.
   (c) A is true, but R is false.
   (d) A is false, but R is true.

10. Read the following statements and select the correct answer from the codes given below:
    1. Corals are mainly found in the tropical oceans.
    2. Corals need clean sediment free water.
    3. Corals are mainly found in deeper parts of the ocean.
    4. Rain water promotes the growth of corals.
    Codes:
    (a) 1 and 2 (b) 2 and 3
    (c) 3 and 4 (d) 2 and 4

11. Consider the following statements and select the correct answer from the code given below:
    Assertion (A): The circum-pacific belt is the most vulnerable zone of Tsunamis.
    Reason (R): It is tectonically most active area and generates world's major earthquakes.
    Codes:
    (a) Both A and R are true and R is the correct explanation of A.
    (b) Both A and R are true, but R is not the correct explanation of A.
    (c) A is true, but R is false.
    (d) A is false, but R is true.

12. Consider the following statements and select the correct answer from the codes given below:
    Assertion (A): New folded mountains are also called Tertiary Mountains.
    Reason (R): They are mainly formed along the constructive plate margins.
    Codes:
    (a) Both A and R are true and R is the correct explanation of A.
    (b) Both A and R are true, but R is not the correct explanation of A.
    (c) A is true, but R is false.
    (d) A is false, but R is true.

13. The horizontal distribution of temperature of ocean water is largely affected by
    1. Depth of water in the ocean
    2. Ocean current
    3. Prevailing winds
    4. Latitudes
    Which of the following is correct?
    (a) 1, 2 and 3 (b) 1, 2 and 4
    (c) 2, 3 and 4 (d) 1, 2, 3 and 4

14. Match List-I with List-II and select the correct answer using the codes given below:

	List-I (Original)		**List-II (Metamorphic)**
A.	Basalt	1.	Slate
B.	Coal	2.	Schist
C.	Limestone	3.	Marble
D.	Shale	4.	Diamond

Codes:

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

15. Consider the following statements and select the correct answer using the codes given below:

Assertion (A): The length of the day at the equator is always 12 hours.

Reason (R): The angle of incidence of the Sun's rays at the equator is constant.

Codes:

(a) Both A and R are true and R is the correct explanation of A.
(b) Both A and R are true, but R is not the correct explanation of A.
(c) A is true, but R is false.
(d) A is false, but R is true.

16. Consider the following statements

1. Igneous rocks are rich in natural gas.
2. Igneous rocks are rich in metallic minerals.
3. Igneous rocks are not fossiferous.
4. Igneous rocks consist of silicate minerals.

Which of the statements given above are correct?

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

17. Match the following two lists and choose the correct answer from the codes given below:

	List-I (Oceans)		**List-II (Ridges)**
A.	Atlantic Ocean	1.	Cocos ridge
B.	Pacific Ocean	2.	Lomonosov ridge
C.	Indian Ocean	3.	Dolphin ridge and challenge ridge
D.	Arctic Ocean	4.	East Indian ridge

Codes:

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

18. Match List-I and List-II and select the correct answer from the codes given below:

	List-I (Processes)		**List-II (Land forms)**
A.	Permafrost	1.	Flood plain
B.	Diastrophism	2.	Pingo
C.	Running water	3.	Stack
D.	Sea waves	4.	Horst

Codes:

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

19. Select the correct chronological order of the following organic cycles from the codes given below:

1. Alpine 2. Torridonian
3. Caledonian 4. Hercynian

Codes:

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

20. Match List-I with List-II and select the correct answer from the codes given below:

	List-I (Concept)		**List-II (Propounder)**
A.	Peneplain	1.	Powel
B.	Base level	2.	Wegener
C.	Continental drift	3.	Hary Hess
D.	Plate tectonics	4.	Davis

Codes:

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

21. Which one of the following is the correct sequence of the terrigenous deposits from the coast to the deeper part of the sea? Use the codes given below to select the correct answer:

1. Clay 2. Mud
3. Sand 4. Silt

Codes:

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

22. Select the correct chronological order of the following geological periods, from the codes given below:

1. Oligocene 2. Eocene
3. Pliocene 4. Miocene

Codes:

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

23. Consider the following statements:
    1. The axis of the Earth's magnetic field is inclined at $23\frac{1}{2}^{\circ}$ and half to the geographic axis of the Earth.
    2. The Earth's magnetic pole in the Northern hemisphere is located on a peninsula in northern Canada.
    3. Earth's magnetic equator passes through Thumba in South India.

    Which of the statement(s) given above is/are correct?
    (a) 2 only (b) 1 and 2 only
    (c) 2 and 3 only (d) 1, 2, and 3
24. Which one of the following is the correct sequence of the descending order of the latitudinal zones of ocean salinity? Use the codes given below to select the correct answer:
    1. 10°N — 15°N
    2. 15°N — 40°N
    3. 40°N — 50°N
    4. 50°N — 70°N

    Codes:
    (a) 1, 3, 2, 4 (b) 2, 1, 3, 4
    (c) 2, 1, 4, 3 (d) 1, 4, 3, 2
25. The correct chronological order of the following geological epochs is
    (a) Pleistocene, Pliocene, Holocene, Miocene.
    (b) Miocene, Pliocene, Pleistocene, Holocene.
    (c) Holocene, Miocene, Pleistocene, Pliocene.
    (d) Pliocene, Pleistocene, Holocene, Miocene.
26. The formation of the Mid-Atlantic Ridge is a typical example of the process of
    1. Convergence 2. Divergence
    3. Shear 4. Sea floor spreading

    Select the correct answer from the following codes:
    Codes:
    (a) 1 and 2 (b) 2 and 3
    (c) 2 and 4 (d) 1 and 3
27. Study the following statements about the interior of the earth and select the correct answer from the codes given below:
    (a) The average density of the outer crust is 2.8.
    (b) The crust is separated from the mantle by the Gutenberg discontinuity.
    (c) There is sudden increase in the velocity of P waves along the mantle core boundary.
    (d) The inner core of the earth is in molten state.

    Codes:
    (a) 1 and 2 (b) 2 and 3
    (c) 1 and 3 (d) 3 and 4
28. Which one of the following characteristics of the earth is not explained by the tetrahedral hypothesis?
    (a) Drifting of the continents.
    (b) Location of chain of Fold Mountains around the Pacific Ocean.
    (c) Antipodal arrangement of the continents and oceans.
    (d) Triangular shape of the continents and the oceans.
29. Which of the following is the correct order of current of the South Atlantic Ocean from Equator and back?
    1. Benguela
    2. Brazil
    3. South Atlantic Drift
    4. South Equatorial

    Codes:
    (a) 1, 4, 2, 3 (b) 3, 2, 1, 4
    (c) 4, 2, 3, 1 (d) 3, 2, 4, 1
30. Which one of the following is not a correct statement about Coriolis force?
    (a) It affects wind direction.
    (b) It is an effect of the rotational movement of the earth.
    (c) It becomes minimum at the poles and maximum at the equator.
    (d) The magnitude of Coriolis Effect is determined by the wind speed, mass of the moving body and sine of latitude.
31. Consider the following statements and select the correct answer from codes given below:
    Assertion (A): Tropical areas get more insolation than the temperate area.
    Reason (R): Tropical areas have larger length of day than the temperate areas.

Codes:

(a) Both A and R are true and R is the correct explanation of A.
(b) Both A and R are true, but R is not the correct explanation of A.
(c) A is true, but R is false.
(d) A is false, but R is true.

32. Consider the following statements regarding the Tidal hypothesis:
1. It is a monistic hypothesis.
2. It was propounded by the British scientist James Jeans.
3. It holds filament responsible for the origin of the solar system.

Which of the statements given above are correct?

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

33. With reference to Kober's Theory of Geosyncline, consider the following:

	Term		Meaning
1.	Orogen	:	Geosyncline
2.	Kratogen	:	Foreland
3.	Randketten	:	Marginal ranges

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

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

34. Consider the following statements and select the correct answer using the codes given below:

Assertion (A): Basalt is a dark coloured and fine grained igneous rock formed by magma.

Reason (R): Magma inside of the earth are cooled very slowly because of higher temperature prevailing there.

Codes:

(a) Both A and R are true and R is the correct explanation of A
(b) Both A and R are true, but R is not the correct explanation of A.
(c) A is true, but R is false.
(d) A is false, but R is true.

35. In an Anticyclone
(a) Barometric pressure is high towards centre of the system.
(b) Winds blow in clockwise direction in southern hemisphere.
(c) Weather remains moist and sky is cloudy.
(d) Situation of calm prevails and weather changes rapidly.

36. Match List-I with List-II and choose the correct answer with the help of the codes:

	List-I (Land forms)		**List-II (Agents of formation)**
A.	Faults	1.	Glacial activity
B.	Flood plains	2.	Fluvial effects
C.	Coral reefs	3.	Organic activity
D.	Moraines	4.	Earth movement

Codes:

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

37. Study the following statements and select the correct answer from the codes given below:
1. The average density of rocks in the lower crust of the earth is 3.
2. There is a gradual decrease in the velocity of the seismic waves through the lower crust.
3. The mantle-core boundary is marked by Moho-discontinuity.
4. The outer core of the earth is in molten form.

Codes:

(a) 1 and 2 are correct
(b) 2 and 3 are correct
(c) 3 and 4 are correct
(d) 1 and 4 are correct

38. Match List-I with List-II and select the correct answer from the codes given below:

	List-I (Era)		**List-II (Epoch)**
A.	Palaeozoic	1.	Jurassic
B.	Mesozoic	2.	Archean
C.	Pre Cambrian	3.	Oligocene
D.	Cainozoic	4.	Silurian

Codes:

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

39. Match the List-I with List-II and select the correct answer from the codes given below:

	List-I		**List-II**
A.	Agulhas current	1.	North Atlantic
B.	Kuroshio current	2.	South Atlantic
C.	Florida current	3.	Indian Ocean
D.	Falkland current	4.	North Pacific

Codes:

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

40. Consider the following statements and select the correct answer with the help of codes given below:

Assertion (A): In southern hemisphere westerlies are called roaring forties between the latitudes of 40°– 50°S, furious fifties at 50°S latitude and shrieking sixties at 60°S latitude.

Reason (R): The westerlies become more vigorous in the southern hemisphere because of lack of land and dominance of oceans. Their velocity increases and they become stormy. They are also associated with boisterous gales.

Codes:

(a) Both A and R are true and R is the correct explanation of A.
(b) Both A and R are true, but R is not the correct explanation of A.
(c) A is true, but R is false.
(d) A is false, but R is true.

41. The correct sequence of different layers of the atmosphere from the surface of the Earth upwards is
(a) Troposphere, Stratosphere, Ionosphere, Mesosphere.
(b) Stratosphere, Troposphere, Ionosphere, Mesosphere.
(c) Troposphere, Stratosphere, Mesosphere, Ionosphere.
(d) Stratosphere, Troposphere, Mesosphere, Ionosphere.

42. Consider the following statements:
1. Either of the two belts over the oceans at about 30° to 35° N and S latitudes is known as Horse Latitude.
2. Horse latitude are low pressure belts.

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

43. Consider the following factors
1. Rotation of the Earth
2. Air Pressure and Wind
3. Density of Ocean Water
4. Revolution of the Earth

Which of the above factors influence the ocean currents?
(a) 1 and 2 only (b) 1 and 4 only
(c) 1, 2 and 3 (d) 2, 3 and 4

44. Normally, the temperature decreases with the increase in height from the Earth's surface because
1. The atmosphere can be heated upwards only from the Earth's surface.
2. There is more moisture in the upper atmosphere.
3. The air is less dense in the upper atmosphere.

Select the correct answer using the codes given below:
(a) 1 only (b) 2 and 3 only
(c) 1 and 3 only (d) 1, 2 and 3

45. Consider the following atmospheric conditions with reference to Tropical cyclones.
1. High relative humidity.
2. Warm oceanic temperature.

3. Region lying between the tropics of cancer and Capricorn.

Which of the above motivate the development of cyclone?

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

46. Which of the following elements exhibit the following properties?
1. It is the third most abundant element in the earth crust.
2. It exists in a stable combination with other materials mainly silicates and oxides.
3. It has high strength-to-weight ratio.

(a) Magnesium (b) Iron
(c) Aluminium (d) Calcium

47. Match List-I with List-II and select the correct answer using the codes given below:

List-I (Soils)		**List-II (Climatic region)**
A. Podzol	1.	Temperate steppe cool
B. Chernozem	2.	Cool temperate
C. Spodsols	3.	Hot and humid
D. Laterite	4.	Humid cool temperate

Codes:

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

48. Examine the following statements and select the correct answer using the codes given below:
1. The atmospheric air is never completely dry.
2. Water vapour can occupy as much as 4 per cent of the atmospheric volume.
3. Water vapour in the atmosphere is always invisible.

Codes:

(a) 1 and 2 are correct
(b) 2 and 3 are correct
(c) 1 and 3 are correct
(d) 1, 2 and 3 are correct

49. Consider the following statements and select the correct answer with the help of codes given below:

Assertion (A): The work of wind as an agent of gradation is not as widespread as that of water.

Reason (R): It is effective only in the desert regions of the world where rainfall is scanty and soil particles are loose.

(a) Both (A) and (R) are true and (R) is the correct explanation of (A).
(b) Both (A) and (R) are true, but (R) is not the correct explanation of (A).
(c) (A) is true, but (R) is false.
(d) (A) is false, but (R) is true.

50. Consider the following statements and select the correct answer with the help of codes given below:

Assertion (A): Hurricane cannot develop in the vicinity of equator.

Reason (R): Coriolis force is maximum over the equator.

(a) Both (A) and (R) are true and (R) is the correct explanation of A.
(b) Both (A) and (R) are true, but (R) is not correct explanation of A.
(c) (A) is true, but (R) is false.
(d) (A) is false, but (R) is true.

51. Match List-I with List-II and select the correct answer from the codes given below

List-I		**List-II**
A. Sublimation	1.	The energy absorbed is used to give the motion needed the escape the surface.
B. Freezing	2.	Energy is released.
C. Evaporation	3.	Releases 80 cal/gm
D. Condensation	4.	Absorb 680 cal/gm to change the state.

Codes:

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

52. Match the following:

List-I (*Mountain Types*)	List-II (*Mountains*)
A. Block Mountain	1. Appalachian
B. Old fold mountain	2. Rocky
C. Young fold mountain	3. Black Forest
D. Volcanic mountain	4. Socottish Highlands
E. Relict mountain	5. Vesuvious

Codes:

	A	B	C	D	E
(a)	1	3	2	5	4
(b)	3	1	4	2	5
(c)	3	1	2	5	4
(d)	4	1	2	3	5

53. What is not true of igneous rocks?
1. they are crystalline
2. they have a layered structure
3. they contain metals
4. they contain fossils

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

54. What is true of sedimentary rocks?
1. they are layered.
2. they contain fossils.
3. they are transported rocks.
4. many of these are formed in water bodies.

(a) 1, 2 and 3 (b) 1, 2 and 4
(c) 1 and 4 (d) all the above

55. Match the following

List-I	List-II
A. Plucking	1. Wind
B. Deflation	2. Stream
C. Abrasion	3. Glacier
D. Attrition	4. Mutual friction of rock fragments

Codes:

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

56. The factor that determines the water holding capacity of rock debris is its
1. porosity 3. texture
2. structure 4. permeability

(a) 1 and 3 (b) 1, 2 and 3
(c) 1, 2 and 4 (d) All of these

57. A study of the nature of the old sedimentary rocks gives an indication about the
1. age of the earth
2. past environmental conditions
3. old civilizations
4. direction of plate movements

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

58. Match the following:

List I	List II
A. Temperature falls with height	1. Ionosphere
B. Reflects radio waves back to earth	2. Stratosphere
C. Contains most of the ozone	3. Tropopause
D. Fall in temperature stops	4. Troposphere

Codes:

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

59. Match the following

List I (*Winds*)	List II (*Plane of occurence*)
A. Santa Ana	1. Argentina
B. Chinook	2. Alps
C. Foehn	3. Rockies
D. Zonda	4. California

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

60. Match the following

List I	List II
A. Isobars	1. Temperature
B. Isohyets	2. Pressure
C. Isotherms	3. Rainfall
D. Isohel	4. Snowfall
	5. Sunshine

	A	B	C	D
(a)	2	4	1	3
(b)	2	3	1	5
(c)	2	3	5	1
(d)	2	1	3	5

61. Which of the following are wrongly matched?
1. Typhoons — China Sea
2. Cyclones — West Indies
3. Hurricanes — Indian Ocean
4. Tornadoes — Australia

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

62. The chief characteristics of shifting cultivation are
1. High dependence on manual labour
2. Low level of technology
3. Utilization of poor soils through fallowing
4. Use of chemical fertilizers

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

63. Double cropping is a common practice in areas having
1. a lot of rainfall.
2. good irrigation facilities.
3. a long growing period.
4. alluvial soils.

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

64. What are the conditions favourable for tea cultivation?
1. Warm temperature
2. High rainfall
3. High altitude
4. Sloping land

(a) 1, 2 and 3 (b) 2, 3 and 4
(c) 1, 2 and 4 (d) All the four

65. Match the following

List-I *Ore*	**List-II** *Metal*
A. Limonite	1. Copper
B. Pyrite	2. Uranium
C. Bauxite	3. Iron
D. Monazite	4. Aluminium

Codes:

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

66. Match the following

List I (*Wind types*)	**List II** (*Regions where they occur*)
A. Brick fielders	1. N. California
B. Sirocco	2. Australia
C. Bergs	3. Mediterranean
D. Northers	4. Africa

Codes:

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

67. What is true about Nile?
1. Forms the largest delta of the world
2. The longest river of the world
3. Provides fertile soils and water for irrigation in a desert region
4. The most voluminous river

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

68. Match the following

List-I (*Peaks*)	**List-II** (*Range*)
A. Gurushikhar	1. Annamalai
B. Dodabeta	2. Aravalli
C. Annaimudi	3. Nilgiri
D. Dhupgarh	4. Satpura

Codes:

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

69. What is the chief cause of low yields of crops in India?
1. Small size of holdings
2. Traditional methods of farming
3. Mass illiteracy among farmers
4. Low level of farm mechanization

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

70. Match the following

List-I	List-II
A. SAIL	1. Chemicals
B. BALCO	2. Iron and Steel
C. BPCL	3. Electronics
D. BEL	4. Aluminium

Codes:

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

71. Match the following

List-I (*Tribes*)	List-II (*Area of occurence*)
A. Adivasis	1. Kerala
B. Moplahs	2. Nilgiri Hills
C. Todas	3. Manipur
D. Angamis	4. Madhya Pradesh

Codes:

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

72. Which factors influence the density distribution of population in India most profoundly?
1. Amount of rainfall
2. Fertility of soils
3. Distribution of minerals
4. Cultural factors

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

73. Match column I with column II and select the correct answer using the code given below the columns:

Column I	Column II
(A) Tropic of cancer	(i) $23\frac{1}{2}°N$
(B) Tropic of Capricorn	(ii) $23\frac{1}{2}°S$
(C) Arctic circle	(iii) $66\frac{1}{2}°N$
(D) Antarctic circle	(iv) $66\frac{1}{2}°S$

(a) A-i, B-ii, C-iii, D-iv
(b) A-ii, B-iii, C-iv, D-i
(c) A-iv, B-i, C-iii, D-ii
(d) A-ii, B-i, C-iv, D-iii

74. Match list I with list II and select the correct answer using the codes given below the list.

List I	List II
(A) 0° latitude	(i) Standard meridian of India
(B) $88\frac{1}{2}°E$	(ii) Arctic Circle
(C) $23\frac{1}{2}°S$	(iii) Equator
(D) $66\frac{1}{2}°N$	(iv) Tropic of Capricorn

Codes :
(a) A - (iii), B - (i), C - (iv), D - (ii)
(b) A - (ii), B - (iii), C - (iv), D - (i)
(c) A - (iii), B - (ii), C - (i), D - (iv)
(d) A - (iii), B - (i), C - (ii), D - (iv)

75. Consider the following statements about our country India:
I. India has an area of about 3.28 million sq. km.
II. India is located in the south-eastern hemisphere.
III. The latitudinal extent of India is 8°4'N and 37° 6'N latitudes.
IV. The longitudinal extent of India is 68°7'E and 97° 25' E longitudes.

Of these statements:
(a) Only I is correct
(b) I, II and III are correct
(c) Only III and IV are correct
(d) I, III and IV are correct

76. Which the following is/are the characteristic(s) of Tropical Deciduous Forests?
(i) Trees shed their leaves in the dry season to conserve water
(ii) The hardwood trees found in these forests are sal, teak and shisham
(iii) Tigers, lions, elephants and monkeys are common animals

(a) only (i) (b) (ii) and (iii)
(c) only (iii) (d) All of them

77. Match column I with column II and select the correct answer using the code given below the columns:

	Column I		Column II
A.	Argentina	(i)	Down
B.	Australia	(ii)	Pampas
C.	North America	(iii)	Veld
D.	South Africa	(iv)	Prairie

(a) A(ii), B(i),C(iv),D(iii)
(b) A(iii), B(i),C(iii),D(iv)
(c) A(i), B(ii),C(iii),D(iv)
(d) A(iv), B(i),C(ii),D(iii)

78. Match column I with column II and select the correct answer using the code given below the columns:

	Column A		Column B
A.	Oasis	(i)	Glacier
B.	Oil	(ii)	Depressions with water
C.	Gangri	(iii)	Sahara
D.	Bedouins	(iv)	Libya

(a) A-(i); B-(ii); C-(iii); D-(iv)
(b) A-(iii); B-(ii); C-(i); D-(iv)
(c) A-(iii); B-(iv); C-(ii); D-(i)
(d) A-(ii); B-(iv); C-(i); D-(iii)

79. Match column I with column II and select the correct answer using the code given below the columns:

	Column I (Types of Forests)		Column II (Areas Associated)
A.	Tropical rainforests	(i)	Sunderbans
B.	Monsoon forests	(ii)	Andaman and Nicobar islands
C.	Thorny bushes	(iii)	Uttar Pradesh and Bihar
D.	Tidal forests	(iv)	Rajasthan and Gujarat

Codes:
(a) A - (ii); B - (iii); D - (iv); D - (i)
(b) A - (i); B - (ii); C - (iii); D - (iv)
(c) A - (ii); B - (iv); C - (iii); D - (i)
(d) A - (iv); B - (iii); C - (ii); D - (i)

80. Match the two columns and select the correct alternative

	Column I Types of Forest		Column II Important Trees
(A)	Tropical Rain Forest	(i)	Pine, Deodar and Spruce
(B)	Tropical Deciduous	(ii)	Bamboo, Cinchona and Forest Mahogany
(C)	Mountain Forest	(iii)	Kikar, Babul, Date and Palm
(D)	Thorn Forest	(iv)	Neem, Teak, Shisham and Sal

(a) A – (iv), B – (iii), C – (ii), D - (i)
(b) A – (ii), B – (iii), C – (i), D - (iv)
(c) A – (ii), B – (iv), C – (i), D - (iii)
(d) A – (i), B – (ii), C – (iii), D - (iv)

81. Match the animal with its habitat and accordingly select the correct alternative:

	Column I Animal		Column II Habitat
(A)	Elephant	(i)	Coniferous Forest or Taiga
(B)	Silver Fox	(ii)	Mediterranean
(C)	Wild buffalo or Bison	(iii)	Tropical Deciduous Forest
(D)	Horse	(iv)	Temperate Grasslands

(a) A – (iv), B – (iii), C – (ii), D - (i)
(b) A – (iii), B – (ii), C – (iv), D - (i)
(c) A – (ii), B – (iv), C – (i), D - (iii)
(d) A – (iii), B – (i), C – (iv), D - (ii)

82. Match the deserts with their locations and select the correct alternative:

	Column I Desert		Column II Location
(A)	Gobi	(i)	Chile
(B)	Kalahari	(ii)	Sudan and Egypt
(C)	Atacama	(iii)	China and Mongolia
(D)	Nubian	(iv)	Namibia and Botswana

(a) A – (iii), B – (i), C – (iv), D - (ii)
(b) A – (iii), B – (iv), C – (i), D - (ii)
(c) A – (ii), B – (iv), C – (i), D - (iii)
(d) A – (iv), B – (ii), C – (iii), D - (i)

83. Temperate Grasslands in different regions of the world are known by different names. Match the name with the region and accordingly select the correct alternative:

Column I	Column II
Name	Region
(A) Veldt	(i) North America
(B) Downs	(ii) Central Asia
(C) Steppes	(iii) Australia
(D) Prairies	(iv) South Africa

(a) A – iv, B – iii, C – ii, D - i
(b) A – iii, B – ii, C – iv, D - i
(c) A – iv, B – ii, C – i, D - iii
(d) A – iii, B – i, C – iv, D - ii

84. Which of the following pairs are correctly matched?

(I) Ranches – Large cattle farms
(II) Bison – American buffalo
(III) Alfa– Alfa – Medicines
(IV) Combine – A machine that can sow, plough and work as thresher all by itself.

(a) I and II only (b) I, II and IV only
(c) I and IV only (d) All the above

85. Consider the following pairs

I. Savannah – East Africa
II. Prairies – North America
III. Veld – Europe
IV. Down – Australia

Which of the above pairs are correct?

(a) I, II, III and IV (b) I, II and IV
(c) I and II (d) III and IV

86. Choose the correct statement(s)?

(1) The movement of interior plates of earth causes change in surface of earth.
(2) Sea waves comes under exogenic force.
(3) Sudden movement of interior of earth causes earthquakes.

(a) Only 1 (b) 1 and 2
(c) 1 and 3 (d) All are true

87. Match column I with column II and select the correct answer using the code given below the columns:

Column I	Column II
(A) Sial	(i) Remains of the dead plants and animals trapped in rocks
(B) Sima	(ii) Layer lies between crust and core
(C) Nife	(iii) Uppermost layer of the earth.
(D) Fossils	(iv) Innermost layer of the earth.

Codes :
(a) A – iii, B – ii, C – iv, D – i
(b) A – ii, B – i, C – iii, D – iv
(c) A – iii, B – i, C – iv, D – ii
(d) A – iv, B – i, C – ii, D – iii

88. Match column I with column II and select the correct answer using the code given below the columns:

Column I	Column II
(A) Basalt	(i) Intrusive igneous rock
(B) Granite	(ii) Metamorphic rock
(C) Sandstone	(iii) Extrusive igneous rock
(D) Marble	(iv) Sedimentary rock

Codes :
(a) A – iii, B – iv, C – i, D – ii
(b) A – iii, B – i, C – iv, D – ii
(c) A – iv, B – iii, C – ii, D – i
(d) A – i, B – iii, C – iv, D – ii

89. Match column I with column II and select the correct answer using the code given below the columns:

Column I (Water falls)	Column II (Countries)
(A) Angel falls	(i) Africa
(B) Niagara falls	(ii) India
(C) Victoria falls	(iii) South America
(D) Jog falls	(iv) North America

Codes:
(a) (A) – i, (B) – iv, (C) – i, (D) – ii
(b) (A) – ii, (B) – iii, (C) – iv, (D) – i
(c) (A) – i, (B) – ii, (C) – iii, (D) – iv
(d) (A) – iii, (B) – ii, (C) – i, (D) – iv

90. Match column I with column II and select the correct answer using the code given below the columns:

	Column I (Land forms)		Column II (Exogenic forces)
(A)	Flood plain	(i)	Sea waves
(B)	Sea cliff	(ii)	Glaciers
(C)	Moraines	(iii)	Wind
(D)	Sand dunes	(iv)	River

(a) (A) – iv, (B) – iii, (C) – ii, (D) – i
(b) (A) – iii, (B) – ii, (C) – i, (D) – iv
(c) (A) – iv, (B) – i, (C) – ii, (D) – iii
(d) (A) – iii, (B) – iv, (C) – i, (D) – ii

91. Consider the following statements regarding the climate of Sahara desert?
I. The climate of the Sahara desert is scorching hot and dry.
II. The sky is cloudless and clear.
III. It receives plenty of rainfall.
IV. The nights may be freezing cold with temperatures nearing zero degrees.
Of the above statements, which are correct.
(a) I only (b) I, III and IV
(c) I, II and III (d) All of above

92. Consider the following statements?
I. The oasis in the Sahara and the Nile Valley in Egypt supports settled population.
II. Trucks are replacing camels in the salt trade.
III. The discovery of oil in Algeria, Libya and Egypt is constantly transforming the Sahara desert.
Of these statements:
(a) I and II are correct
(b) I, II and III are correct
(c) Only III is correct
(d) II and III are correct

93. Match column I with column II and select the correct answer using the code given below the columns:

	Column A		Column B
A.	Coal	(i)	Southern California
B.	Petroleum	(ii)	Norway
C.	Water Energy	(iii)	Russia
D.	Wind Energy	(iv)	Persian Gulf

(a) A(iii), B(i), C(ii), D(iv)
(b) A(iii), B(iv), C(ii), D(i)
(c) A(i), B(ii), C(iii), D(iv)
(d) A(i), B(ii), C(iv), D(iii)

94. Match the River Valley Projects with the states benefited by them and accordingly select the correct alternative:

	Types of Industries		Examples
(A)	Damodar Valley	(i)	Gujarat and Rajasthan
(B)	Chambal	(ii)	Madhya Pradesh and Rajasthan
(C)	Sardar Sarovar	(iii)	Andhra Pradesh and Karnataka
(D)	Tungabhadra	(iv)	Bengal, Bihar and Jharkhand

(a) A - iv, B - iii, C - ii, D - i
(b) A - ii, B - iii, C - iv, D - i
(c) A - ii, B - iv, C - i, D - iii
(d) A - iv, B - ii, C - i, D - iii

95. Match the two columns and select the correct alternative

	Mineral		Information related to that mineral
(A)	Bauxite	(i)	Non-Metallic mineral
(B)	Haematite	(ii)	Aluminium
(C)	Mica	(iii)	Found in Malaysia
(D)	Tin	(iv)	Best quality Iron Ore

(a) A - iv, B - iii, C - ii, D - i
(b) A - ii, B - iii, C- i, D - iv
(c) A - ii, B - iv, C - i, D - iii
(d) A - i, B- ii, C - iii, D - iv

96. Match the Crops with the Soil required by them and accordingly select the correct alternative:

	Crop		Soil Required
(A)	Tea	(i)	Alluvial soil with clayey sub-soil
(B)	Millets	(ii)	Well drained loamy soil
(C)	Rice	(iii)	Less fertile and sandy Soil
(D)	Coffee	(iv)	Hill slopes with alluvial soil

(a) A - iv, B - iii, C - i, D - ii
(b) A - ii, B - iii, C - iv, D - i
(c) A - ii, B - iv, C - i, D - iii
(d) A - iv, B - ii, C - i, D - iii

97. Match list I with list II and select the correct answer using the codes given below the lists:

List I (Minerals)		List II (Distribution)
(A) Iron-ore	(i)	South Africa
(B) Manganese	(ii)	France
(C) Limestone	(iii)	North Sweden
(D) Platinum	(iv)	Georgia

Codes:
(a) A - iii, B - iv, C - ii, D - i
(b) A - i, B - ii, C - iii, D - iv
(c) A - ii, B - iii, C - iv, D - i
(d) A - i, B - iii, C - ii, D - i

98. Which of the following pairs is not correct?
I. Kalpakkam – Tamil Nadu
II. Tarapur – Uttar Pradesh
III. Rana Pratap Sagar– Rajasthan
IV. Kaiga – Karnataka
Select the correct answer using the codes given below:
(a) I, II and III (b) I, III and IV
(c) I and IV (d) Only IV

99. Match list I with list II and select the correct answer using the codes given below the lists:

List I (water bodies)		List II (Distribution of water in %)
(A) Oceans	(i)	0.0001
(B) Ice caps	(ii)	0.0019
(C) Atmosphere	(iii)	97.3
(D) Rivers	(iv)	2.0

Codes:
(a) A - (iii), B - (iv), C - (ii), D - (i)
(b) A - (i), B - (ii), C - (iii), D - (iv)
(c) A - (iii), B -(i), C - (ii), D - (iv)
(d) A - (iv), B - (iii), C - (ii), D - (i)

100. Which of the following is/are West flowing river(s) of India?
1. Mahanadi 2. Krishna
3. Narmada 4. Kavery
Select the correct answer using the codes given below
(a) 1, 2 and 4 (b) 2 and 3
(c) Only 3 (d) 1 and 3

101. Which of the following statements relating to Earthquakes is/are correct?
1. The point of origin of Earthquake is called epicenter.
2. The lines joining the places which were affected Earthquake at the same point of time are called homoseismal lines.
Select the correct answer using the codes given below
(a) Only 1 (b) Only 2
(c) Both 1 and 2 (d) Neither 1 nor 2

102. What would be the influence on the weather conditions when in mid-winter a feeble high pressure develops over the North-Western part of India?
1. High and dry winds would blow outward from this high pressure area.
2. The Northern plain would become cold.
3. Scorching winds (locally called loo) would blow during the day time.
4. There would be torrential rains brought by thunderstorms.
Select the correct answer using the codes given below
(a) 1 and 2 (b) 2 and 3
(c) 3 and 4 (d) All of these

103. Which of the following gases in the atmosphere is/are responsible for acid rains ?
1. Oxides of sulphur
2. Oxides of nitrogen
3. Oxides of carbon
Select the correct answer using the codes given below
(a) 1 and 2 (b) 1 and 3
(c) Only 2 (d) 1, 2 and 3

104. Which among the following phenomenas can occur when very warm and humid air is rising over a mass of a very cold air?
1. Calm weather
2. Snowfall
3. Storms and cyclonic storms
4. Intense rain and hail
Select the correct answer using the codes given below
(a) 1 and 2 (b) 2 and 3
(c) 3 and 4 (d) 1 and 4

105. Consider the following statements
1. Ozone is mostly found in the stratosphere
2. Ozone layer lies 25 to 30 km above the surface of the Earth
3. Ozone absorbs ultraviolet radiation from the Sun.
4. Ozone layer has no significance for life on the Earth

Which of the statements given above is/are correct?
(a) 1 and 2 (b) 1 and 3
(c) 2 and 3 (d) 3 and 4

106. Which of the following statement regarding ozone layer within the atmosphere is/are correct?
1. It absorbs most of the ultraviolet radiation found in the Sun's rays.
2. Chlorofluorocarbons are serious threat to the ozone layer.

Select the correct answer using the codes given below
(a) Only 1 (b) Only 2
(c) Both 1 and 2 (d) Neither 1 nor 2

107. Which of the following statements regarding red soils of India is/are correct?
1. The colour of the soil is red due to ferric oxide content.
2. Red soils are rich in lime, humous and potash.
3. They are porous and have friable structure.

Select the correct answer using the codes given below
(a) Only 1 (b) 1 and 3
(c) 2 and 3 (d) 1, 2 and 3

108. Which of the following best explain why the lower course of a river is sometimes chocked with sediments?
1. The valley of a river is widest in its lower course.
2. The velocity of a river in its lower course is low.
3. The delta sometimes develops in a river's lower course.
4. Much of the river water is drawn for irrigation in the lower course.

Select the correct answer using the codes given below
(a) 1, 2, 3 and 4 (b) 1, 3 and 4
(c) 1, 2 and 3 (d) 2 and 4

109. Consider the following statements
1. National parks are a special category of protected areas of land and sea coasts where people are an integral part of the system.
2. Sanctuaries are concerned with conservation of particular species.
3. Biosphere reserves are connected with the habitat of a particular wild animal.

Which of the statement given above is/are correct?
(a) 1, 2 and 3 (b) Only 2
(c) 1 and 2 (d) 1 and 3

110. Consider the following statements :
1. Half the water vapour in the air in atmosphere lies below an altitude of 1000 m.
2. The amount of precipitable water in the atmosphere increases from the equator to the poles.

Which of the statements given above is/are correct?
(a) Only 1 (b) Only 2
(c) Both 1 and 2 (d) Neither 1 nor 2

111. Consider the following statements :
1. Coal is a sedimentary rock.
2. Basalt is an igneous rock.
(a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2

112. Which of the following statements characterize the anticyclones?
1. Anticyclones are low pressure systems.
2. They are characterized by divergent wind circulation.
3. They are indicative of dry weather conditions.

Select the correct answer using the code given below?
(a) 2 and 3 only (b) 1 and 3 only
(c) 1, 2 and 3 (d) 1 only

113. Consider the following statements related to stratification of atmospheric layers
1. All storms and cloudiness are restricted to stratosphere.
2. Cirrus clouds are formed on the top layers of troposphere.
3. Stratosphere is also an 'isoclinal layer'.

Which of the statements given above are correct?

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

114. Which among the following statements characterized EI Nino?
I. It occurs at irregular intervals
II. It carriers warmer water
III. It carries less saline water
IV. Its atmospheric equivalent is southern oscillation.
Select the correct, answer using the code given below
(a) I and II only (b) II and III only
(c) III and IV only (d) I, II, III and IV

115. Consider the following statements regarding Andaman and Nicobar Islands
I. It enjoys equatorial climate
II. This is the only place in India where a volcano is located
III. This is the only place in India where coral bed is found
Which of the statements given above is/are correct?
(a) I, II and III (b) I and II only
(c) II and III only (d) I only

116. Match list I with list II and select the correct answer using the code given below the lists :

List I (Agents of erosion)	List II (Topographical feature)
(A) Running water	1. Cirque
(B) Glacier	2. Barchan
(C) Wind	3. Rift Valley
(D) Underground Water	4. Doline
	5. Gorge

Codes :
(a) A-5; B-1; C-2; D-4
(b) A-5; B-2; C-1; D-3
(c) A-4; B-2; C-1; D-5
(d) A-3; B-4; C-1; D-2

117. The Earth's surface receives maximum energy at 12 noon but the maximum temperature never occurs at 12 noon. State which of the following reasons are correct.
1. Transformation of solar energy into heat requires some time.
2. The loss of energy through long-wave radiations from the Earth's surface exceeds the energy received from the Sun at 4:00 p.m.
3. Energy received by the Earth from solar radiations continues to exceed the energy lost by outgoing long-wave radiations from the Earth's surface up to 4:00 p.m.
Select the correct answer using the code given below :
Code :
(a) 1 and 2 only (b) 2 and 3 only
(c) 1 and 3 only (d) 1, 2 and 3

118. Arrange the following tropical forest groups in the correct order of sequence based on area covered in India beginning from the largest covered area:
1. Moist deciduous 2. Dry deciduous
3. Wet evergreen 4. Semi-evergreen
Select the correct answer using the code given below :
Code :
(a) 1-2-3-4 (b) 3-4-2-1
(c) 1-3-2-4 (d) 4-3-2-1

119. Which of the following statements is/are true ?
1. The angle of the axis in relation to the plane in which the earth revolves around the sun is not constant.
2. The amount of energy given off by the sun changes with the transparency of the atmosphere. Select the correct answer using the code given below.
(a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2

120. Which of the following statements relating to tsunami is/are correct?
As the tsunamis leave the deep water of the open sea and travel towards shallow water
1. the speed considerably
2. they attain enormous height is reduced
3. they appear as a gentle rise and fall of the sea
Select the correct answer using the code given below.
(a) 1 and 2 only (b) 2 and 3 only
(c) 1 only (d) 1, 2 and 3

121. Consider the following statements :
1. In the coastal regions, the land breeze blows over to the sea during night.

2. In the coastal regions, during night, the air over the sea is warmer than the air over land.

Which of the statements given above is/are correct?

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

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

1. Inter-Tropical Convergence Zone is a low pressure belt which forms an important zone of contact over Northern India and Pakistan.
2. Inter-Tropical Convergence Zone invites inflow of winds from different directions.

Select the correct answer using the code given below :

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

123. Match list I with list II and select the correct answer using the codes given below the lists:

List I	List II
(A) Mahogany	(i) Tropical Deciduous forests
(B) Shisham	(ii) Mediterranean vegetation
(C) Eucalyptus	(iii) Tropical Evergreen forests
(D) Citrus fruits	(iv) Temperate Evergree forests

Codes:

(a) A-(iii), B- (i), C- (iv), D- (ii)
(b) A - (i), B - (ii), C- (iii), D- (iv)
(c) A- (ii), B- (iii), C- (iv), D- (i)
(d) A- (iii), B- (iv), C- (ii), D- (i)

DIRECTIONS (Qs. 124-131): Consider the following statements and select the correct answer with the help of codes given below:

(a) Both A and R are true and R Explains A
(b) Both A and R are true but R does not explain A
(c) A is true but R is false
(d) A is false but R is true

124. **Assertion (A) :** Granite has larger crystals than basalt.
Reason (R) : Basalt has larger content of metallic minerals.

125. **Assertion (A) :** Most of the weather changes are confined to troposphere.
Reason (R) : Most of the atmospheric mass is contained in this layer.

126. **Assertion (A):** Trees in Mediterranean region have thick bark.
Reason (R) : It is an adaptation to long summer drought.

127. **Assertion (A) :** Within the equatorial regions the highlands have experienced the maximum economic development.
Reason (R) : These have been the areas settle by Europeans.

128. **Assertion (A) :** USA grows sugarcane in the Gulf coast region.
Reason (R) : The climate of this region is warm and moist.

129. **Assertion (A) :** Yak is an important animal of Tibetan Highlands.
Reason (R) : This is a small animal requiring less grazing.

130. **Assertion (A) :** China is a leading producer of Rice but does not export rice.
Reason (R) : Chinese rice is of inferior quality and there is no demand for it in the international market.

131. **Assertion(A) :** Mercator's projection has been used for making navigational charts.
Reason (R) : Loxodromes are shown as straight lines on this.

ANSWER KEY																			
1.	(b)	**15.**	(a)	**29.**	(c)	**43.**	(c)	**57.**	(d)	**71.**	(b)	**85.**	(b)	**99.**	(a)	**113.**	(d)	**127.**	(a)
2.	(d)	**16.**	(a)	**30.**	(c)	**44.**	(c)	**58.**	(c)	**72.**	(c)	**86.**	(d)	**100.**	(c)	**114.**	(d)	**128.**	(a)
3.	(a)	**17.**	(b)	**31.**	(c)	**45.**	(d)	**59.**	(a)	**73.**	(a)	**87.**	(a)	**101.**	(b)	**115.**	(c)	**129.**	(c)
4.	(c)	**18.**	(a)	**32.**	(c)	**46.**	(c)	**60.**	(b)	**74.**	(a)	**88.**	(b)	**102.**	(a)	**116.**	(a)	**130.**	(c)
5.	(c)	**19.**	(b)	**33.**	(d)	**47.**	(a)	**61.**	(c)	**75.**	(d)	**89.**	(a)	**103.**	(a)	**117.**	(c)	**131.**	(a)
6.	(b)	**20.**	(c)	**34.**	(a)	**48.**	(a)	**62.**	(d)	**76.**	(d)	**90.**	(c)	**104.**	(d)	**118.**	(a)		
7.	(a)	**21.**	(d)	**35.**	(a)	**49.**	(a)	**63.**	(c)	**77.**	(a)	**91.**	(c)	**105.**	(b)	**119.**	(a)		
8.	(d)	**22.**	(d)	**36.**	(b)	**50.**	(c)	**64.**	(c)	**78.**	(d)	**92.**	(b)	**106.**	(c)	**120.**	(b)		
9.	(a)	**23.**	(c)	**37.**	(d)	**51.**	(c)	**65.**	(b)	**79.**	(a)	**93.**	(b)	**107.**	(b)	**121.**	(c)		
10.	(a)	**24.**	(b)	**38.**	(b)	**52.**	(c)	**66.**	(b)	**80.**	(c)	**94.**	(d)	**108.**	(c)	**122.**	(b)		
11.	(a)	**25.**	(b)	**39.**	(b)	**53.**	(d)	**67.**	(c)	**81.**	(b)	**95.**	(c)	**109.**	(b)	**123.**	(a)		
12.	(c)	**26.**	(c)	**40.**	(a)	**54.**	(d)	**68.**	(b)	**82.**	(c)	**96.**	(a)	**110.**	(d)	**124.**	(b)		
13.	(c)	**27.**	(c)	**41.**	(c)	**55.**	(b)	**69.**	(b)	**83.**	(a)	**97.**	(a)	**111.**	(c)	**125.**	(b)		
14.	(b)	**28.**	(a)	**42.**	(a)	**56.**	(b)	**70.**	(a)	**84.**	(b)	**98.**	(b)	**112.**	(a)	**126.**	(a)		

Hints & Solutions

1. (b) The polar front theory states that masses of relatively warm and cold air are brought into contact. These masses are known after their source regions. In meteorology, the polar front is the boundary between the polar cell and the Ferrel cell in each hemisphere. At this boundary a sharp gradient in temperature occurs between these two air masses, each at very different temperatures.
2. (d) Continuous fall of tiny marine sediments on ocean floors is called marine snowfall. In the deep ocean, marine snow is a continuous shower of mostly organic detritus falling from the upper layers of the water column. It is a significant means of exporting energy from the light-rich photic zone to the aphotic zone below.
3. (a) Jet stream is Rossby waves. Jet streams are fast flowing, narrow air currents found in the atmospheres of some planets, including Earth. The main jet streams are located near the tropopause, the transition between the troposphere (where temperature decreases with altitude) and the stratosphere (where temperature increases with altitude). The major jet streams on Earth are westerly winds (flowing west to east).
4. (c) There has been equatorial counter current in every ocean of the world. The Equatorial Counter Current is an eastward moving, wind-driven flowing 10-15m deep current found in the Atlantic, Indian, and Pacific Oceans. This current flows west-to-east at about 3-10°N in the Atlantic and Pacific basins, between the North Equatorial Current (NEC) and the South Equatorial Current (SEC).
5. (c) The concepts of continental drift and pole-wandering form the basis for the plate Tectonic theory. Plate tectonics is the theory that the outer rigid layer of the earth (the lithosphere) is divided into a couple of dozen "plates" that move around across the earth's surface relative to each other, like slabs of ice on a lake. A plate may be an ocean basin alone, or a continent alone, or a combination of ocean basin+continent (common).
6. (b) The coral polyps grow both in shallow and deep oceanic waters is not true. A coral polyp is an invertebrate meaning an animal with no backbone,

examples of this are anemones and jellyfish. It is also the single living unit of a coral and the creature responsible for our coral reefs.

7. (a) Aridity is the distinctive characteristics of the deserts. They receive low rainfall and have high evaporation.
8. (d) The temperature at its top is lowest over the equator and relatively higher over the poles.
9. (a) Equatorial counter current is not found in the Indian Ocean during summer season because during summer season south-west monsoon current is dominant in northern Indian ocean.
10. (a) Corals are mainly found in the tropical oceans. Corals need clean sediment free water. A coral polyp has a sack like body and an opening encircled by stinging tentacles called cnidae. The coral polyp uses calcium carbonate from seawater to build itself a hard skeleton and it is this limestone skeleton that protects the soft coral polyp.
11. (a) The circum-pacific belt is the most vulnerable zone of Tsunamis. It is tectonically most active area and generates world's major earthquakes. Ring of Fire, also called Circum-Pacific Belt or Pacific Ring of Fire, long horseshoe-shaped seismically active belt of earthquake epicentres, volcanoes, and tectonic plate boundaries that fringes the Pacific basin.
12. (c) New folded mountains are also called tertiary mountains. During the Tertiary, the last phase of the breakup of Pangea was accompanied by several continental collisions, multiple small terranes and continents collided, resulting in several mountain chains that we know today, such as the Pyrenees, Alps, and Zagros Mountains.
13. (c) The horizontal distribution of temperature of ocean water is largely affected by ocean current, prevailing winds and latitudes.
14. (b) Schist is a metamorph of Basalt. Diamond is a meta-morph of coal. Marble is a metamorph of limestone. State is a metamorph of shale.
15. (a) The length of the day at the equator is always 12 hours. The angle of incidence of the sun's rays at the equator is constant.
16. (a) Igneous rocks are rich in natural gas. They are rich in metallic minerals. They are not fossiferous. Igneous rocks are called fire rocks and are formed either underground or above ground. Underground, they are formed when the melted rock, called magma, deep within the earth becomes trapped in small pockets. As they cool slowly underground, the magma becomes igneous rocks.
17. (b) Dolphin and challenger ridge are located in Atlantic ocean. The Dolphin ridge is in the North Atlantic Ocean and the Challenger ridge is in the South Atlantic Ocean. Cocos ridge is located in Pacific Ocean. To the east of longitude 150° W, the relief of the ocean floor is considerably less pronounced than it is to the west. In the eastern Pacific the Cocos Ridge extends southwestward from the Central American isthmus to the Galapagos Islands. East Indian ridge is located in Indian Ocean. The Southeast Indian Ridge (SEIR) is a divergent tectonic plate boundary located along the seafloor of the southern Indian Ocean. It separates the Indo-Australian Plate to the north from the Antarctic Plate to the south. Lomonosov ridge is located in Arctic ocean. The Lomonosov Ridge is a 1,800 km long ridge, which divides the Arctic Ocean into two major basins: the Eurasia Basin and the Amerasia Basin.
18. (a) Permafrost forms Pingo lands. A "pingo" is a mound or hill, consisting of an outer layer of soil covering a core of solid ice. It's sort of like a big Earth pimple on the Arctic landscape. Diastrophism forms Horst land which is the raised fault block bounded by normal faults or graben. A horst is formed from extension of the Earth's crust. The raised block is a portion of the crust that generally remains stationary or is uplifted while the land has dropped on either side. Running water forms flood plain type of land. A floodplain or flood plain is an area of land adjacent to a stream or river that stretches from the banks of its channel to the base of the enclosing valley walls and experiences flooding during periods of high discharge.
19. (b) The correct order of the orogenic cycles are: Torridonian — Caledonian — Heranian — Alpine.
20. (c) The concept of peneplain is propounded by Davis. A peneplain is a low-relief plain representing the final stage of fluvial erosion during times of extended tectonic stability. The concepts of base level and widespread erosion of great mountain ranges to low elevation and relief are the cornerstones of Powell's work. The continental drift concept propounded by in Wegener 1912. He proposed that the continents we know today were once all attached in a single landmass he called Pangaea. They were surrounded by one global ocean, but then broke apart and somehow "drifted" to their separate places on the

globe. The concept of plate tectonics propounded by Hary Hess. Hess described how hot magma would rise from under the crust at the Great Global Rift. When the magma cooled, it would expand and push the tectonic plates apart.

21. (d) The correct sequence of terrigenous deposits are: sand, silt, clay and mud.
22. (d) The correct order of the geological periods are: pliocene, miocene, oligocene, ecocene.
23. (c) The Earth's magnetic pole in the northern hemisphere is located on a peninsula in northern Canada. Earth's magnetic equator passes through Thumba in South India.
24. (b) (15°N – 40° N > 10° N – 15° N > 40° N – 50° N > 50° N – 70° N)
25. (b) The correct order of the geological epochs is: (miocene, pliocene, pleistocene, pliocene).
26. (c) The formation of mid-Atlantic ridge is a typical example of the process of Divergence and sea floor spreading.
27. (c) The average density of the outer crust is 2.8. There is sudden increase in the velocity of P waves along the mantle core boundary.
28. (a) Drifting of the continents is not explained by the tetrahedral hypothesis. The Tetrahedral hypothesis is an obsolete scientific theory attempting to explain the arrangement of the Earth's continents and oceans by referring to the geometry of a tetrahedron.
29. (c) The correct order is: (South Equatorial — Brazil — South Atlantic drift — Benguela)
30. (c) It becomes minimum at the poles and maximum at the equator.
31. (c) Tropical areas get more insolation than the temperature area. The intensity of albedo temperature effects depend on the amount of albedo and the level of local insolation; high albedo areas in the arctic and antarctic regions are cold due to low insolation, where areas such as the Sahara Desert, which also have a relatively high albedo, will be hotter due to high insolation. Tropical and sub-tropical rain forest areas have low albedo, and are much hotter than their temperate forest counterparts, which have lower insolation.
32. (c) It was propounded by the British Scientist James Jeans. It holds filament responsible for the origin of the solar system. The tidal or near-collision hypothesis was put forward by James Jeans in 1917, in which the planets were considered to have been formed due to the approach of some other star to the Sun.
33. (d) Orogen means geosyncline, Kratogen means foreland, Randkettan means marginal ranges. Leopold Kober (21 September 1883 – 6. September 1970) was an influential Austrian geologist responsible for a number of now largely discredited theories of orogeny and for coining the term kraton to describe stable continental platforms. Kober, developing geosyncline theory, posited that stable blocks known as forelands move toward each other, forcing the sediments of the intervening geosynclinal region to move over the forelands, forming marginal mountain ranges known as Randketten, while leaving an intervening median mass known as the Zwischengebirge.
34. (a) Both the given statements are correct and R is the true explanation of A.
35. (a) In an anticyclone barometric pressure is high towards centre of the system. An anti-cyclone -- also known as a high pressure area -- is a large atmospheric circulation system with the wind flowing clockwise around it in the Northern Hemisphere, and counter-clockwise in the Southern Hemisphere.
36. (b) Earth movements create faults. Fluvial effects create flood plains. Organic activity creates coral reefs. Earth movements create moraines.
37. (d) The average density of rocks in the lower crust of the earth is 3. The outer core of the earth is in molten form.
38. (b)

Palaeozoic	Silurian
Mesozoic	Jurassic
Pre cambrian	Archean
Cainozoic	Oligocene

39. (b)

Agulhas current	Indian ocean
Kuroshio current	North Pacific
Florida current	North Atlantic
Falkland current	South Atlantic

40. (a) Both the given statements are correct and R is the correct explanation of A.
41. (c) (Troposphere, Stratosphere, Mesosphere, Ionosphere)
42. (a) Either of the two belts over the oceans of about 30° to 35° N and S latitudes is known as Horse Latitude. This region, under a ridge of high pressure called the subtropical high, is an area which receives little precipitation and has variable winds mixed with calm. The horse latitudes are associated with the subtropical anticyclone and the large-scale descent of air from high-altitude currents moving toward the poles.

43. (c) Rotation of the earth, air pressure and wind, density of ocean water are the factors which influence the ocean currents.

44. (c) The atmosphere can be heated upwards only from the earth's surface. The air is less dense in the upper atmosphere.

45. (d) The atmospheric conditions should be high in relative humidity, warm oceanic temperature and region lying between the Tropics of Cancer and Capricorn. A tropical cyclone is a rapidly-rotating storm system characterized by a low-pressure center, strong winds, and a spiral arrangement of thunderstorms that produce heavy rain. Tropical cyclones typically form over large bodies of relatively warm water. They derive their energy from the evaporation of water from the ocean surface, which ultimately recondenses into clouds and rain when moist air rises and cools to saturation.

46. (c) Aluminium is the third most abundant element in the earth crust after oxygen and silicon.

53. (d) Igneous rock is formed through the cooling and solidification of magma or lava. Igneous rock may form with or without crystallization, either below the surface as intrusive (plutonic) rocks or on the surface as extrusive (volcanic) rocks.

Rock that has formed through the deposition and solidification of sediment, especially sediment transported by water (rivers, lakes, and oceans), ice (glaciers), and wind. Sedimentary rocks are often deposited in layers, and frequently contain fossils.

Note: Limestone and shale are common sedimentary rocks.

58. (c) Stratosphere is an atmospheric layer lying between the troposphere and themesosphere, in which temperature generally increases with height.
Troposphere is the lowest atmospheric layer, about 18 kilometres (11 miles) thick atthe equator to about 6 km (4 miles) at the Poles, in which airtemperature decreases normally with height at about 6.5°C per km.
Tropopause is the boundary, or transitional layer, between the troposphere and the stratosphere.
Ionosphere is a region of the earth's atmosphere, extending from about 60kilometres to 1000 km above the earth's surface, in which there is ahigh concentration of free electrons formed as a result of ionizingradiation entering the atmosphere from space.

59. (a) The Santa Ana winds are strong, very dry offshore winds that impact Southern California and northern Baja California from late fall through early winter.
Along the eastern slopes of the Rockies, the Chinook wind provides a welcome respite from the long winter chill
A warm dry wind coming off the lee slopes of a mountain range, especially off the northern slopes of the Alps.
Zonda wind (in Spanish, *viento zonda*) is a regional term for the foehn wind that often occurs on the eastern slope of the Andes, in Argentina. The Zonda is a dry wind (often carrying dust) which comes from the polar maritime air, warmed by descent from the crest, which is approximately 6,000 m (20,000 ft) above sea level. It may exceed a velocity of 40 km/h (25 mph)

60. (b) Isobar is a line drawn on a weather map or chart that connectspoints at which the barometric pressure is the same.
Isotherms are lines connecting areas of the same temperature, Isohyet is a line drawn on a map connecting points having equal rainfall at acertain time or for a stated period.
Isohel is a line on a weather map connecting points that receive equal amountsof sunshine.

61. (c) Cyclone is a large-scale, atmospheric wind-and-pressure system characterized bylow pressure at its center and by circular wind motion, counterclockwise in the Northern Hemisphere, clockwise in the Southern Hemisphere.
Tornado is a localized, violently destructive windstorm occurring over land,especially in the Middle West, and characterized by a long, funnel-shaped cloud extending toward the ground and made visible by condensation and debris.

62. (d) Shifting cultivation is a land-use system, esp in tropical Africa, in which a tract of land is cultivated until its fertility diminishes, when it is abandoned until this is restored naturally.It is often used by tropical-forest root-crop farmers in various parts of the world and by dry-rice cultivators of the forested hill country of Southeast Asia. Areas of the forest are burned and cleared for planting; the ash provides some fertilization, and the plot is relatively free of weeds. After several years of cultivation, fertility declines and weeds increase. Traditionally, the area was left fallow and reverted to a secondary forest

of bush. Cultivation would then shift to a new plot; after about a decade the old site could be reused.

63. (c) Double cropping is to raise two consecutive crops on the same land within a singlegrowing season. An example of double cropping might be to harvest a wheat crop by early summer and then plant corn or soybeans on that acreage for harvest in the fall. This practice is only possible in regions with long growing seasons.

64. (c) Tea grows only in a warm environment. For this reason this plant is mainly found in regions between 16 degrees south latitude and 20 degrees north latitude. India is the largest producer and exporter of tea in the world. The ideal climatic conditions for the production and growing of tea are as follows:
- Temperature: 21°C to 29°C is ideal for the production of tea. High temperature is required in summer. The lowest temperature for the growth of tea is 16°C.
- Rainfall: 150-250 cm of rainfall is required for tea cultivation.
- Soil: Tea shrubs require fertile mountain soil mixed with lime and iron. The soil should be rich in humus.
- Land: Tea cultivation needs well drained land. Stagnation of water is not good for tea plants. Heavy rainfall but no stagnancy of water, such mountain slopes are good for tea cultivation.

67. (c)
- The length of the Nile River is approximately 6650 kilometres (4132 miles). It is believed to be the longest river in the world.
- Located in Africa, the Nile River lies in the following countries: Kenya, Eritrea, Congo, Burundi, Uganda, Tanzania, Rwanda, Egypt, Sudan and Ethiopia.
- The Nile River has huge significance in regards to Ancient Egypt. Most of Ancient Egypt's historical sites are located along the banks of the Nile River including cities such as Luxor and Cairo.
- In 2004, the White Nile Expedition became the first to navigate the entire length of the Nile River. The expedition began in Uganda and finished in Rosetta, taking four months and two weeks to complete.
- The Nile Delta in Northern Egypt is where the Nile River drains in to the Mediterranean Sea. It is around 160 kilometres (100 miles) in length and spreads out over 240 kilometres (149 miles) of coastline. It is rich in agriculture and has been farmed for thousands of years.
- Around 40 million people (half of Egypt's population) live in the Nile Delta region.
- In 1787, the famous Rosetta stone was found in the Nile Delta in the city of Rosetta. This Ancient Egyptian artifact played a key role in modern understanding of Egyptian hieroglyphics.
- The Aswan High Dam was built in 1970 to help regulate flooding of the Nile River. Before the Aswan Dam was built, years that featured high levels of water could wipe out crops while years of low level water could produce famines and drought. The dam helps control these water levels.

69. (b) The low productivity in India is a result of the following factors:
- The average size of land holdings is very small (less than 2 hectares) and is subject to fragmentation due to land ceiling acts, and in some cases, family disputes
- Adoption of modern agricultural practices and use of technology is inadequate
- India has inadequate infrastructure and services.
- lliteracy, general socio-economic backwardness, slow progress in implementing land reforms and inadequate or inefficient finance and marketing services.
- nconsistent government policy.
- Irrigation facilities are inadequate,

72. (c) In an agricultural country, the fertility of soil and rainfall are the most important determinants of density of population. In case of industrial country the density of population may be influenced by such factors as the availability of minerals, industrial development and levels of urbanization etc.

75. (d) India lies in the Northern hemisphere.

84. (b) Alfa-Alfa is a grass, not medicine

85. (b) Veld tropical grasslands are found in south Africa.

91. (c) The Sahara desert has scanty rainfall.

93. (b) Russia has about 1/3rd of coal reserves and 2/3rd of the world's reserves of petroleum. Water

energy has been harnessed by Norway. Wind energy has been utilized in Southern California.

98. (b) Tarapur power plant is located in Maharashtra, whereas Narora in Uttar Pradesh.

100. (c) Mahanadi, Krishna and Kavery are East flowing rivers. While Narmada, Tapi, Luni and Payaswani are West flowing rivers.

101. (b) The point of origin of an Earthquake is called focus or hypocenter. Epicenter is the point at ground level directly above the hypocenter.

The line on Earth's surface connecting points which are affected by Earthquake at same time are called homoseismal lines.

103. (a) Acid rain is caused by emissions of sulphur dioxide and nitrogen oxide, which react with the water molecules in the atmosphere to produce acids.

104. (d) Calm weather and intense rain and hail phenomena can occur when very warm and humid air is rising over a mass of a very cold air.

105. (b) The ozone layer is a layer in Earth's atmosphere which contains relatively high concentration of ozone. This layer absorbs 97.99% of the sun's high frequency ultraviolet light, which potentially damages the life forms on Earth. It is mainly located the lower portion of stratosphere from approximately 20 to 30 km above Earth.

106. (c) The ozone layer contains 97–99% of the Sun's high frequency ultraviolet light, which is potentially damaging to the life on Earth. Chlorofluorocarbons, along with nitric oxide, nitrous oxide, hydroxyl, chlorine, bomotenorocarbon etc. are serious treat to the ozone layer.

107. (b) The presence of good concentration of iron (ferric) oxide is responsible for giving this soil its redish colour. These soils are found in Chhotanagpur Plateau, Telangana, Nilgiris, Tamil Nadu, Karnataka, Andhra Pradesh and periophering area of Deccan Plateau. Red soils have traces of time and humous but they can't be rich of the same.

108. (c) The river is chocked because the valley of a river is widest in its lower course and the velocity of a river in its lower course is low.

109. (b) National parks are large areas of public land set aside for native plants, animals and places where they live. Sanctuaries are concerned with conservation of particular species.

110. (d) Half the water vapour in the air in atmosphere lies below an altitude of 2 kilometer and 90 per cent of water vapour lies below an altitude of 5 kilometer. Amount of precipitable water in atmosphere increases from the poles to the equator.

111. (c) Sedimentary rocks are formed from sediments that have been pressed together. Sediments may come from plant or animal remains, from minerals that were once dissolved in water, or form large rocks that have been broken up into smaller pieces by water, wind or ice.

Igneous rocks are rocks formed from molten rock material as it cools and hardens.

112. (a) Areas that have higher air pressure than the surrounding area are called anticyclones.

113. (d) All the given statements are correct.

114. (d) El Nino, an unusual warning of surface ocean waters in the eastern tropical Pacific is the part of southern oscillation. Scientists do not know exactly how El Nino forms. It is said that El Nino may have contributed to the 1993 Mississipi and 1995 California floods. The average period length of EL Nino is 5 years.

115. (c) Barren Island (Andaman sea) is the only active volcano Island in even south Asia. It is the part of Indian Union Territory of Andaman and Nicobar Islands.

116. (a)

Agents of erosion		Topographical features
Running water	-	Gorge
Glacier	-	Cirque
Wind	-	Barchan
Underground water	-	Delive

117. (c) Transformation of solar energy into heat requires some time, energy received by the earth from solar radiations continues to exceed the energy lost by outgoing long-wave radiations from the earth's surface from 4.00p.m.

118. (a) The main areas of tropical forest are found in the Andaman and Nicobar Islands; the Western Ghats, which fringe the Arabian Sea coastline of peninsular India; and the greater Assam region in the north-east. Small remnants of rain forest are found in Orissa state. Semi-evergreen rain forest is more extensive than the evergreen formation partly because evergreen forests tend to degrade to semi-evergreen with human interference. There are substantial

differences in both the flora and fauna between the three major rain forest regions.

119. (a) For the poles latitude = 90° and for equator latitude = 0°. Latitude at a point on the surface of the earth is defined as the angle, which the line joining that point to the centre of earth makes with equatorial plane.

120. (b) Tsunami waves do not resemble normal sea waves, because their wavelength is far longer. Rather than appearing as a breaking wave, a tsunami may instead initially resemble a rapidly rising tide, and for this reason they are often referred to as tidal waves. Tsunamis generally consist of a series of waves with periods ranging from minutes to hours, arriving in a so-called "wave train".[4] Wave heights of tens of metres can be generated by large events. Although the impact of tsunamis is limited to coastal areas, their destructive power can be enormous and they can affect entire ocean basins.

121. (c) Land heats and cools more rapidly than the sea. During the day the land gets heated and the air over the land being hotter and lighter than that over the sea, a low pressure area is created over the land. The hot air rises and cool air from the see ruches in towards the land, which is referred as sea breeze.At night the land rapidly loses its heat faster than the sea. The air over the sea is therefore warmer and lighter than over the land and a breeze blows but from the land towards the sea.

122. (b) The Intertropical Convergence Zone (ITCZ), known by sailors as the doldrums, is the area encircling the earth near the equator where the northeast and southeast trade winds come together. The ITCZ appears as a band of clouds, usually thunderstorms that circle the globe near the equator. In the Northern Hemisphere, the trade winds move in a south-western direction from the northeast, while in the Southern Hemisphere, they move north-westward from the southeast.

124. (b) The crystal size in the igneous rocks is more a function of the quickness of the process of cooling rather than of the mineral content. The mineral content determines the melting point of the rocks and the basaltic lava having a higher content of metallic minerals solidifies rapidly once it reaches the surface.

125. (b) There is no relationship between the mass of the atmosphere accounted for by the troposphere and the weather changes here. Most of the weather changes are associated with the presence of moisture in the troposphere. Also most of the influence of the solar energy entering the earth's atmosphere is felt in this layer itself.

126. (a) Long roots, thick bark and small sized thick leaves are some of the adaptations among the plants to withstand a long dry season. Thick bark and small sized leaves reduce the rate of transpiration. Long roots enable the plants to obtain moisture from greater depth. The Mediterranean regions do not receive rainfall during the summer as the pole-ward shift of the pressure belts during the respective summer, brings these regions under the influence of the trade winds which blow from east to west thus causing no rainfall in these western margins of the continents. During winter when the pressure and wind belts shift towards the equator, these regions come under the influence of the westerlies which blowing from oceans to land, cause rainfall along these western margins.

127. (a) For the purpose of settlement in the tropical regions, the Europeans always selected the highlands as these areas offered comparatively cooler and less humid climatic conditions. In the tropical lowlands the hot and humid climate was a deterring factor to the European settlements.

128. (a) The warm Gulf Stream keeps the temperatures higher than the normal temperature of the latitude.

129. (c) Yak is a rather large bodies animal. It is reared in the cold regions as it can withstand cold climate.

130. (c) China does not export rice as the country has a large population and consequently a large domestic consumption of rice. There is no relation between the quality of rice produced in China and the country not being an exporter of rice.

131. (a) Mercator's projection is used for political maps due to its property of orthomorphism and not due to the fact that it shows loxodromes as straight lines.

3 Economic Geography

1. Consider the following statements and select the correct answer from the codes given below:

   Assertion (A): The W.T.O. aims to promote free trade.

   Reason (R): It does not manage the global economy impartially.

   Codes:

   (a) Both A and R are true and R is the correct explanation of A.

   (b) Both A and R are true, but R is not the correct explanation of A.

   (c) A is true, but R is false.

   (d) A is false, but R is true.

2. The main features of the commercial dairy farming are

   1. It is capital intensive.
   2. It is labour intensive.
   3. It is highly productive.
   4. It is highly commercial.

   Select the correct answer from the codes given below:

   Codes:

   (a) 1 and 3 only (b) 2 and 3 only

   (c) 1, 3 and 4 only (d) 1, 2, 3 and 4

3. Match List-I with List-II and select the correct answer from the codes given below:

	List-I (Oil refineries)		**List-II (Country)**
A.	Abadan	1.	Saudi Arabia
B.	Haifa	2.	Iran
C.	Kirkuk	3.	Israel
D.	Ras Tanavra	4.	Iraq

Codes:

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

4. Match List-I with List-II and select the correct answer from the codes given below:

	List-I (Mineral)		**List-II (Area of production)**
A.	Coal	1.	Highveld
B.	Gold	2.	Karaganda Basin
C.	Iron ore	3.	Krivoi Rog
D.	Petroleum	4.	San Joaquin valley

Codes:

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

5. Match List-I with List-II and select the correct answer from the codes given below:

	List-I (Mineral)		**List-II (Occurrence)**
A.	Coal	1.	Bisbee
B.	Copper ore	2.	Baku
C.	Iron ore	3.	Mesabi
D.	Petroleum	4.	Westphalia

Codes:

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

6. Match List-I with List-II and select the correct answer by using the codes given below:

	List-I (Country)		**List-II (Coal fields)**
A.	China	1.	Pennsylvania
B.	Germany	2.	Saar
C.	Ukraine	3.	Shensi
D.	U.S.A.	4.	Donetz Basin

Codes:

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

7. Match List-I with List-II and select the correct answer from the codes given below:

	List-I (Mineral)		**List-II (Leading producer)**
A.	Tin	1.	Zambia
B.	Thorium	2.	India
C.	Uranium	3.	Malaysia
D.	Copper	4.	Canada

Codes:

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

8. Consider the following statements and select the correct answer from the codes given below:

Assertion (A): New economic geography deals with the spatial economy of 21st century.

Reason (R): It attempts to meet the new economic challenges.

Codes:

(a) Both A and R are true and R is the correct explanation of A.

(b) Both A and R are true, but R is not the correct explanation of A.

(c) A is true, but R is false.

(d) A is false, but R is true.

9. Consider the following statements and select the correct answer from the codes given below:

Assertion (A): Commercial fishing industry has developed in temperate zones.

Reason (R): These temperate areas have wide extension of continental shelf areas and favourable climate.

Codes:

(a) Both A and R are true and R is the correct explanation of A.

(b) Both A and R are true, but R is not the correct explanation of A.

(c) A is true, but R is false.

(d) A is false, but R is true.

10. Match List-I with List-II and select the correct answer from the codes given below:

	List-I		**List-II**
A.	Tin	1.	Mexico
B.	Silver	2.	Zambia
C.	Mica	3.	Malaysia
D.	Copper	4.	India

Codes:

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

11. Which of the following are not the examples of shifting cultivation?
Select the correct answer from the codes given below:

1.	Ladang	2.	Hacienda
3.	Fazenda	4.	Pondu

Codes:

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

12. Match List-I with List-II and select the correct answer from the codes given below:

	List-I (Crops)		**List-II (Main producing area)**
A.	Coconut	1.	Kenya
B.	Banana	2.	Papua New Guinea
C.	Groundnut	3.	Ecuador
D.	Tea	4.	Senegal

Codes:

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

13. Match List-I with List-II and select the correct answer from the codes given below:

	List-I (Country)		**List-II (Oil field)**
A.	Iran	1.	Bargan
B.	Iraq	2.	Damam
C.	Kuwait	3.	Kirkuk
D.	Saudi Arabia	4.	Masjid Sulaiman

Codes:

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

14. Consider the following statements and select the correct answer from the codes given below:

Assertion (A): The growth rate of population in developing countries is higher than that of developed countries.

Reason (R): Low level of economic development leads to high total fertility rate.

Codes:

(a) Both A and R are ture and R is the correct explanation of A.
(b) Both A and R are true, but R is not the correct explanation of A.
(c) A is true, but R is false.
(d) A is false, but R is true.

15. Consider the following statements and select the correct answer from the codes given below:

Assertion (A): The south east Asian countries export timber on a large scale.

Reason (R): These countries have large ports.

Codes:

(a) Both A and R are true and R is the correct explanation of A.
(b) Both A and R are true, but R is not the correct explanation of A.
(c) A is true, but R is false.
(d) A is false, but R is true.

16. Match List-I with List-II and select the correct answer from the codes given below:

	List-I (Industrial region)		**List-II (Country)**
A.	Kinki	1.	France
B.	Lorraine	2.	U.S.A.
C.	Midlands	3.	Japan
D.	New England	4.	U.K.

Codes:

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

17. Consider the following statements and select the correct answer from the codes given below:

Assertion (A): Brazil is a leading producer of ethanol.

Reason (R): It is the largest producer of sugarcane in the world.

Codes:

(a) Both A and R are true and R is the correct explanation of A.
(b) Both A and R are true, but R is not the correct explanation of A.
(c) A is true, but R is false.
(d) A is false, but R is true.

18. Match List-I with List-II and select the correct answer from the codes given below:

	List-I (Industry)		**List-II (Centre)**
A.	Iron and steel	1.	Turin
B.	Ship building	2.	Taipei
C.	Electronics	3.	Montreal
D.	Automobile	4.	Pittsburgh

Codes:

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

19. Consider the following statements and select the correct answer from the codes given below:

Assertion (A): There are disparities in regional development on a global scale and within each country too.

Reason (R): Such disparities are mainly due to the lack of adequate skilled labour.

Codes:

(a) Both A and R are true and R is the correct explanation of A.

(b) Both A and R are true, but R is not the correct explanation of A.

(c) A is true, but R is false.

(d) A is false, but R is true.

20. Match List-I with List-II and select the correct answer from the codes given below:

	List-I (Iron and steel centre)		**List-II (Country)**
A.	Cleveland	1.	Canada
B.	Essen	2.	Russia
C.	Hamilton	3.	U.S.A.
D.	Tula	4.	Germany

Codes:

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

21. Match List-I with List-II and select the correct answer from the codes given below the lists:

	List-I (City)		**List-II (Important industry)**
A.	Shanghai	1.	Ship building
B.	Chicago	2.	Iron and steel
C.	Shefield	3.	Cotton textile
D.	Yokohama	4.	Engineering

Codes:

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

22. Match List-I with List-II and select the correct answer from the codes given below:

	List-I		**List-II**
A.	Saar Industrial Region	1.	China
B.	New England Industrial Region	2.	Germany
C.	South Transvaal Industrial Region	3.	U.S.A.
D.	Canton Industrial Region	4.	South Africa

Codes:

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

23. Match List-I with List-II and select the correct answer from the codes given below:

	List-I (Mineral)		**List-II (Mine)**
A.	Diamond	1.	Butte
B.	Coal	2.	Kimberley
C.	Cobalt	3.	Katanga
D.	Silver	4.	Saar

Codes:

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

24. Match List-I with List-II and select the correct answer from the codes given below:

	List-I		**List-II**
A.	Detroit	1.	Cutlery
B.	Pittsburgh	2.	Ship building
C.	Plymouth	3.	Iron and steel
D.	Sheffield	4.	Automobile

Codes:

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

25. Match List-I with List-II and select the correct answer from the codes given below:

List-I (Crops)		**List-II (Largest producer)**
A.	Wheat	1. Brazil
B.	Cotton	2. China
C.	Sugarcane	3. U.S.A.
D.	Tea	4. India

Codes:

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

26. Which of the following are fund resources?

1. Coal 2. Copper
3. Petroleum 4. Forest

Select the correct answer from the codes given below:

Codes:

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

27. Match List-I and List-II and select the correct answer from the codes given below;

List-I		**List-II**
A.	Shifting cultivation	1. Mongolia
B.	Nomadic herding	2. Australia
C.	Livestock ranching	3. Tundra Region
D.	Fishing and hunting	4. Amazon Basin

Codes:

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

28. Match List-I with List-II and select the correct answer from the codes given below:

List-I		**List-II**
A.	Largest producer of wheat in the world	1. U.S.A.
B.	Largest producer of milk in the world	2. China
C.	Largest producer of sugarcane in the world	3. India
D.	Largest producer of maize in the world	4. Brazil

Codes:

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

29. Match List-I with List-II and select the correct answer from the codes given below:

List-I		**List-II**
A.	Iron and steel	1. Atlanta
B.	Ship building	2. Bradford
C.	Automobile	3. Cleveland
D.	Woollen textile	4. Yakohama

Codes:

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

30. Match List-I with List-II and select the correct answer from the codes given below:

List-I		**List-II**
A.	Hydropower	1. France
B.	Coal	2. Congo Democratic Republic
C.	Petroleum	3. Poland
D.	Nuclear power	4. Iraq

Codes:

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

31. Match List-I with List-II and select the correct answer from the codes given below:

List-I (Industrial region)		**List-II (Name of country)**
A.	Ruhr	1. U.S.A.
B.	New England	2. Brazil
C.	Kinki	3. Germany
D.	Belo Horizontal	4. Japan

Codes:

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

32. Match List-I with List-II and select the correct answer using the codes given below the lists:

	List-I (Coal field)		**List-II (Country)**
A.	Donetz	1.	Germany
B.	Kuznatsk	2.	U.K.
C.	Lancashire	3.	Russia
D.	Saar	4.	Ukrain

Codes:

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

33. Match List-I with List-II and select the correct answer by using the codes given below the lists:

	List-I (Minerals)		**List-II (Important centres)**
A.	Copper	1.	Butte
B.	Diamond	2.	Katanga
C.	Gold	3.	Kimberley
D.	Silver	4.	Witwatersrand

Codes:

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

34. Arrange the following countries in the descending order of their wheat production and select the correct answer from the codes given below:

1. China 2. India
3. Russia 4. U.S.A.

Codes:

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

35. Match List-I with List-II and select the correct answer using the codes given below the lists:

	List-I (Minerals)		**List-II (Major producer)**
A.	Mineral oil	1.	Zambia
B.	Copper	2.	Guyana
C.	Manganese	3.	Venezuela
D.	Bauxite	4.	Gabon

Codes:

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

36. Which of the following is accredited with the Geographical Indication (GI) mark?

1. Handwoven Pashmina shawls of Kashmir.
2. Bhagalpur Silk, Bihar.
3. Madurai Idly, Tamil Nadu.
4. Darjeeling Tea, West Bengal.

Select the answer from the codes given below:

(a) 1, 2, and 3
(b) 2, 3, and 4
(c) 1, 3, and 4
(d) All of the above

37. Match List-I with List-II and select the correct answer using the codes given below.

	List-I (Iron ore areas)		**List-II (States)**
A.	Dhalli Rajhara	1.	Odisha
B.	Kudremukh	2.	Jharkhand
C.	Badam Pahar	3.	Karnataka
D.	Noamundi	4.	Chhattisgarh

Codes:

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

38. Match List-I with List-II and select the correct answer using the codes given below.

	List-I (Industrial production)		**List-II (Place of production)**
A.	Brassware	1.	Kanchipuram
B.	Silk Sarees	2.	Lucknow
C.	Chikkan Embroidery	3.	Moradabad
D.	Sports Goods	4.	Jalandhar

Codes:

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

39. Match List-I with List-II and select the correct answer from the codes given below:

List-I (Sectors)		List-II (Economic activities)
A.	Primary sector	1. Business organisation
B.	Secondary sector	2. Cultivation
C.	Tertiary sector	3. Handloom textiles
D.	Quarternary	4. Transport services

Codes:

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

40. Match List-I with List-II and select the correct answer from the codes given below:

List-I (Industrial activities)		List-II (Explanations)
A.	Processing activities	1. Inputs are processed goods
B.	Fabricating activities	2. Major inputs are raw material
C.	Integrative activities	3. Involve neither inputs nor outputs
D.	Administrative activities	4. Inputs are processed goods undergoing little change

Codes:

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

41. Match column I with column II and select the correct answer using the code given below the columns:

Column I		Column II
A.	Rice	(i) 30-40ºC
B.	Tea	(ii) 15-25ºC
C.	Cotton	(iii) 20ºC
D.	Coffee	(iv) 25ºC

(a) A (i), B (ii), C (iii), D (iv)
(b) A (iii), B (iv), C (i), D (ii)
(c) A (ii), B (i), C (iv), D (iii)
(d) A (i), B (iii), C (iv), D (ii)

42. Match column I with column II and select the correct answer using the code given below the columns:

Column I		Column II
(A)	Sericulture	(i) Breeding of fish
(B)	Pisciculture	(ii) Commercial rearing of silk worms
(C)	Viticulture	(iii) Growing vegetables, flowers and fruits
(D)	Horticulture	(iv) Cultivation of grapes

Codes:

(a) (A) – (ii), (B) – (i), (C) – (iv), (D) – (iii)
(b) (A) – (i), (B) – (ii), (C) – (iii), (D) – (iv)
(c) (A) – (iv), (B) – (iii), (C) – (ii), (D) – (i)
(d) (A) – (iii), (B) – (ii), (C) – (i), (D) – (iv)

43. Match column I with column II and select the correct answer using the code given below the columns:

Column I (Names of shifting Cultivation)		Column II (Areas Associated)
(A)	Ladang	(i) Mexico
(B)	Milpa	(ii) North-East India
(C)	Roca	(iii) Malaysia
(D)	Jhumming	(iv) Brazil

Codes:

(a) (A) – (iv), (B) – (iii), (C) – (ii), (D) – (i)
(b) (A) – (iii), (B) – (i), (C) – (iv), (D) – (ii)
(c) (A) – (ii), (B) – (iii), (C) – (iv), (D) – (i)
(d) (A) – (i), (B) – (ii), (C) – (iii), (D) – (iv)

44. In which countries is the shipbuilding industry concentrated?

1. Japan 2. Hong Kong
3. Russia 4. South Korea

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

45. Consider the following statements:
Industry refers to an economic activity that is concerned with the
I. Production of goods
II. Extraction of minerals
III. Provision of services
Of these statements
(a) II and III are correct
(b) I and II are correct
(c) I, II and III are correct
(d) Only I is correct

46. Consider the following statements:
The factors affecting the location of industries are the availability of :
(i) raw material (ii) labour
(iii) transport (iv) market
(a) (i) and (ii) are correct
(b) (iii) and (i) are correct
(c) only (iv) is correct
(d) All the above are correct

47. Which of following methods is/are suitable for soil conservation in hilly region?
1. Terracing and contour bunding
2. Shifting cultivation
3. Contour ploughing
Select the correct answer using the codes given below :
(a) 1 and 3 (b) Only 2
(c) Only 3 (d) All of these

48. Which one of the following is the example of subsistence farming?
(a) Shifting cultivation
(b) Commercial farming
(c) Extensive and intensive farming
(d) Organic farming

49. Arrange the locations of four oil refineries of India from west to East.
(a) Koyali, Kochi, Panipat, Mathura
(b) Kochi, Koyali, Panipat, Mathura
(c) Koyali, Panipat, Kochi, Mathura
(d) Koyali, Panipat, Mathura, Kochi

50. Tank irrigation is practised mainly in Peninsular India because
1. undulating relief and hard rocks make it difficult to dig canals and wells
2. rives are rainfed
3. of compact nature of population and agricultural field
Select the correct answer using the codes given below :
(a) 1 and 2 (b) 2 and 3
(c) 1 and 3 (d) All of these

51. Consider the following statements
1. Rural forestry aims to raise the trees on community land and on privately owned land.
2. Farm forestry encourages individual farmers to plant trees on their own farmland to meet the domestic need of the family.
Which of the statement(s) given above is/are correct?
(a) Only 1 (b) Only 2
(c) Both 1 and 2 (d) Neither 1 nor 2

52. Which of the following are responsible for the decrease of per capita holding of cultivated land in India ?
1. Low per capita income.
2. Rapid rate of increase of population
3. Practice of dividing land equally among the heirs.
4. Use of traditional techniques of ploughing.
Select the correct answer using the codes given below :
(a) 1 and 2 (b) 2 and 3
(c) 1 and 4 (d) 2, 3 and 4

53. Consider the following statements about black soil of India
1. Black soil becomes sticky when it is wet.
2. Black soil contains adequate nitrogen as well as phosphorus required for the growth of plants
Which of the statements given above is/are correct?
(a) Only 1 (b) Only 2
(c) Both 1 and 2 (d) Neither 1 nor 2

54. Consider the following statements with regard to the mining industry of India
1. The spatial distribution of minerals is uneven.
2. The mining industry since colonial days has been export-oriented.
Which of the statements given above is/are correct?
(a) Only 1 (b) Only 2
(c) Both 1 and 2 (d) Neither 1 nor 2

55. Which of the following is/are the chief characteristics of commercial grain farming of the middle latitude grasslands?
1. The size of farms are generally large.
2. Cultivation is highly mechanized.
3. It is a type of extensive farming.
Select the correct answer using the code given below:
(a) 1 and 2 only (b) 2 only
(c) 1, 2 and 3 (d) 1 and 3 only

ANSWER KEY															
1.	(b)	**8.**	(a)	**15.**	(c)	**22.**	(a)	**29.**	(a)	**36.**	(d)	**43.**	(b)	**50.**	(a)
2.	(d)	**9.**	(a)	**16.**	(b)	**23.**	(b)	**30.**	(a)	**37.**	(c)	**44.**	(d)	**51.**	(c)
3.	(b)	**10.**	(c)	**17.**	(a)	**24.**	(a)	**31.**	(a)	**38.**	(a)	**45.**	(c)	**52.**	(b)
4.	(b)	**11.**	(c)	**18.**	(b)	**25.**	(b)	**32.**	(b)	**39.**	(b)	**46.**	(d)	**53.**	(a)
5.	(b)	**12.**	(a)	**19.**	(c)	**26.**	(b)	**33.**	(b)	**40.**	(b)	**47.**	(a)	**54.**	(c)
6.	(b)	**13.**	(d)	**20.**	(b)	**27.**	(b)	**34.**	(b)	41.	(b)	**48.**	(a)	**55.**	(c)
7.	(c)	**14.**	(a)	**21.**	(d)	**28.**	(b)	**35.**	(a)	42.	(a)	**49.**	(b)		

Hints & Solutions

1. (b) The WTO established in 1995. It aims to promote free trade, but it does not manage the global economy impartially. The organization deals with regulation of trade between participating countries; it provides a framework for negotiating and formalizing trade agreements, and a dispute resolution process aimed at enforcing participant's adherence to WTO agreements, which are signed by representatives of member governments and ratified by their parliaments.
2. (d) The main features of the commercial dairy farming are capital intensive, labour intensive, highly productive and highly commercial.
3. (b) The oil refineries of Iran are located in Abadan. Abadan is a city in and the capital of Abadan County, Khuzestan province, Iran. It lies on Abadan Island, 53 kilometres from the Persian Gulf, near the Iraq-Iran border. The oil refinery of Israel is located in Haifa. Haifa is the largest city in northern Israel, and the third-largest city in the country, with a population of over 291,000. The oil refinery of Iraq is located in Kirkuk. Kirkuk is a city in Iraq and the capital of Kirkuk Governorate. It is located in the Iraqi governorate of Kirkuk, 236 kilometres north of the capital, Baghdad. The oil refinery of Saudi Arabia is located in Ras Tanura. Ras Tanura is a city in the eastern province of Saudi Arabia located on a peninsula extending into the Persian Gulf.
4. (b) Karaganda Basin is known for coal production. Karagandy, more commonly known by its Russian name Karaganda, is the capital of Karagandy province in Kazakhstan. Highveld is known for gold production. The Highveld is the portion of the South African inland plateau. Krivoi Rog is known for iron ore production. It is a city in central Ukraine. It is situated in Dnipropetrovsk Oblast, to the southwest of the Oblast's administrative centre. San Joaquin valley is known for petroleum exploration. The San Joaquin Valley is the area of the central valley of the U.S. state of California that lies south of the Sacramento – San Joaquin river delta in Stockton.
5. (b) Coal mining occurs in Westphalia. It is a region in Germany. Copper ore occurs in Bisbee. Bisbee is a city in Cochise County, Arizona, United States, 82 miles southeast of Tucson. Iron ore occurs in Mesabi.The Mesabi Iron Range is a vast deposit of iron ore and the largest of four major iron ranges in the region collectively known as the Iron Range of Minnesota. Discovered in 1866, it is the chief deposit of iron ore in the United States. Baku is famous for petroleum exploration. Baku is the capital and largest city of Azerbaijan, as well as the largest city on the Caspian Sea and of the Caucasus region.
6. (b) Shensi is the coal field of China. It is a province of the People's Republic of China, officially part of the northwest China region. Saar is known as the coal mining in Germany. The Saarland is one of Germany's sixteen federal states. Its capital is at Saarbrücken. Donetz Basin is the coal field of Ukraine. It comprises the Donbas Foldbelt, which is the uplifted and compressionally deformed part of the Pripyat–Dniepr–Donets (PDD) Basin. Pennsylvania is known for coal mining in U.S.A. Pennsylvania, officially the Commonwealth of Pennsylvania, is a U.S. state that is located in the northeastern and mid-Atlantic regions of the United States, and the Great Lakes region.

7. (c) Malaysia is the leading producer of tin. India is the leading producer of thorium. Canada is the leading producer of uranium. Zambia is the leading producer of copper.
8. (a) New Economic Geography deals with the spatial economy of 21st century because it attempts to meet the new economic challenges.
9. (a) Commercial fishing industry has developed in temperature zones because these temperate areas have wide extension of continental shelf areas and favourable climate.
10. (c) Malaysia is known for tin production. Mexico is known for silver production. India is known for mica production. Zambia is known for copper production.
11. (c) Hacienda and Pondu are not the examples of shifting cultivation. Shifting cultivation is known as ladang cultivation in south east Asia. Fazendas (meaning "farms") were plantations found throughout Brazil; during the colonial period (16th - 18th centuries), they were concentrated primarily in the northeastern region, where sugar was produced.
12. (a) The main producing country of coconut is Papua New Guinea. The main producing country of banana is Ecuador. The main producing country of groundnut is Senegal. The main producing country of tea is Kenya.
13. (d) Masjid-e-Suleiman is the oil field of Iran. Kirkuk is the oil field of Iraq. Bargan is the oil field of Kuwait. Deman is the oil field of Saudi Arabia.
14. (a) The growth rate of population in developing countries is higher than that of developed countries because law level of economic development leads to high total fertility rate.
15. (c) The south east Asia countries export timber on a large scale but these countries have no large ports.
16. (b) Kinki is the industrial region of Japan. The Kansai region or the Kinki region lies in the southern-central region of Japan's main island Honshu. Lorraine is the industrial region of France. Lorraine is one of the 27 regions of France. The administrative region has two cities of equal importance: Metz, the regional prefecture and Nancy. Midlands is the industrial region of U.K. The Midlands is an area comprising central England that broadly corresponds to the early medieval Kingdom of Mercia. It borders southern England, northern England, East Anglia and Wales. New England is the industrial region of U.S.A. New England is a region in the northeastern corner of the United States consisting of the six states of Maine, Massachusetts, New Hampshire, Vermont, Rhode Island, and Connecticut.
17. (a) Brazil is the leading producer of ethanol because it is the largest producer of sugarcane in the world. Sugarcane ethanol is an alcohol-based fuel produced by the fermentation of sugarcane juice and molasses. Because it is a clean, affordable and low-carbon biofuel, sugarcane ethanol has emerged as a leading renewable fuel for the transportation sector. Brazil is the world's largest sugarcane ethanol producer and a pioneer in using ethanol as a motor fuel. In 2012/13, Brazilian ethanol production reached 23.2 billion litres (6.1 billion gallons).
18. (b) Turin is the centre of automobile industry.Turin is a city and an important business and cultural centre in northern Italy, capital of the Piedmont region. Pittsburgh is the centre of iron and steel industry. Pittsburgh is the seat of Allegheny County and with a population of 306,211 is the second-largest city in the U.S. state of Pennsylvania. Montreal is the centre of ship-building. Montreal is a city in the Canadian province of Quebec. It is the largest city in the province. Taipai is the centre of electronics. Taipei, officially known as Taipei City, is the capital of Taiwan. Situated at the northern tip of Taiwan, Taipei is located on the Tamsui river.
19. (c) Disparities in regional development on a global scale are not mainly due to the lack of adequate skilled labour.
20. (b) Regarding to the Iron and steel centre, Cleveland is located in U.S.A. Essen is located in Germany. Hamilton is located in Canada. Tula is located in Russia.
21. (d) Cotton textile industry belongs to Shanghai. Iron and steel industry belongs to Chicago. Engineering industry belongs to Shefield. Ship building industry belongs to Tokohama.
22. (a) Saar industrial region is located in Germany. New England industrial region is located in U.S.A. South Transval industrial region is located in South Africa. Canton industrial region is located in China.
23. (b) Diamond extracts from the Kimberley mines. The first diamond found in South Africa, was discovered less than 30 miles away and within a few years, the mining town of Kimberley. Coal founded in Saar region. In the past, a coal mining was an important branch of industry. Cobalt founded in

Katanga region. Katanga is one of the provinces of the Democratic Republic of the Congo. The eastern part of the province is a rich mining region, which supplies cobalt, copper, tin, radium, uranium, and diamonds. The region's capital, Lubumbashi, is the second largest city in the Congo. Silver founded in Butte. Butte is a census-designated place (CDP) in Matanuska-Susitna Borough, Alaska, United States.

24. (a) Cutlery industry located in Plymouth. Ship building industry located in Shefield. Iron and steel industry located in Pittsburgh. Automobile industry located in Detroit.

25. (b) China is the largest producer of wheat. Roughly two-thirds of the total wheat production came from the north China plain and nearly another third from the central provinces. Winter wheat accounts for about 94% of China's total wheat output. U.S.A. is the largest producer of cotton. In its January report, USDA estimated a '13-14 US crop of 13.19 million bales. Upland production was estimated at 12.55 million bales and extra-long staple production at 636,000 bales. Brazil is the largest producer of sugarcane. Brazil's sugarcane industry association UNICA estimates Brazil's sugar cane production in 2012/13 at 531.4 million ton which is 8% up from the 493.2 million ton produced in 2011/12. India is the largest producer of tea. Tea Board of India shows that during January to August, tea production has risen by 6.2% to 705 million kg in 2013.

26. (b) Coal and petroleum are the fund resource minerals. Because they are of the highest value in the foreign world market due to demand and also for scarcity.

27. (b) Shifting cultivation practices in Amazon Basin. Nomadic herding practices in Mangolia. Live stock ranching belongs to Australia. Fishing and hunting belongs to Tundra region.

28. (b) Largest producer of wheat in the world is China. Largest producer of milk in the world is India. Largest producer of sugarcane in the world is Brazil. Largest producer of maize in the world is U.S.A.

29. (a) Iron and steel industry belongs to Cleveland. Ship building industry belongs to Yakohama. Automobile industry belongs to Atlanta. Woollen textile industry belongs to Bradford.

30. (a) Hydropower associated with Congo Democratic Republic. The Democratic Republic of the Congo has reserves of petroleum, natural gas, coal, and a potential hydroelectric power generating capacity of around 100,000 MW. The Inga Dam, alone on the Congo River, has the potential capacity to generate 40,000 to 45,000 MW of electric power, sufficient to supply the electricity needs of the whole southern Africa region. Coal associated with Poland. Today Poland's coal industry is among the most competitive in Europe, providing jobs to over 100,000 people in the country. Poland is now the 9th largest hard coal producer in the world and the largest coal producer in the EU. It is also the 8th largest coking coal exporter in the world. Petroleum associated with Iraq. In 2006, Iraq's oil production averaged 2.0 million barrels per day (320×10^3 m^3/d), down from around 2.6 Mbbl/d (410×10^3 m^3/d) of production prior to the coalition invasion in 2003. Iraq's reserve to production ratio is 158 years. Nuclear power associated with France. France derives over 75% of its electricity from nuclear energy. This is due to a long-standing policy based on energy security.

31. (a) Ruhr industrial region belongs to Germany. New England industrial region belongs to U.S.A. Kinki industrial region belongs to Japan. Belo Horizonte industrial region belongs to Brazil.

32. (b) Donetz coal field belongs to Ukrain. Kuznatsk coal field belongs to Russia. Lancashire coal field belongs to U.K. Saar coal field belongs to Germany.

33. (b) Copper mineral located in Katanga. Diamond mineral located in Kimberley. Gold mineral located in Wit watersrand. The Witwatersrand Gold Rush was a gold rush in 1886 that led to the establishment of Johannesburg, South Africa. It was part of the Mineral Revolution. Silver located in Butte.

34. (b) The countries in the descending order of their wheat production are; China, India, U.S.A. and Russia.

35. (a) Venezuela is the major producer of mineral oil.With 77,800,000,000 barrels (1.237×10^{10} m^3)

of proven oil reserves in 2004 Venezuela has the largest proven oil reserves in South America and the sixth largest in the world. Zambia is the major producer of Copper. Zambia's copper output is expected to hit 1.5 million tonnes by 2017 as foreign companies pour $3 billion into sector. Gabon is the major producer of Manganese. The high-grade manganese deposits at Moanda, near Franceville, are among the world's richest. Reserves were estimated at 250 million tons with a metal content of 48–52%. Guyana is the major producer of Bauxite. Linden is the second largest town in Guyana after Georgetown. It is primarily a bauxite mining town, containing many mines 60–90 metres deep.

36. (d) Geographical Indications of Goods are defined as that aspect of industrial property which refer to the geographical indication referring to a country or to a place situated therein as being the country or place of origin of that product. Typically, such a name conveys an assurance of quality and distinctiveness which is essentially attributable to the fact of its origin in that defined geographical locality, region or country. Under Articles 1 (2) and 10 of the Paris Convention for the Protection of Industrial Property, geographical indications are covered as an element of IPRs. They are also covered under Articles 22 to 24 of the Trade Related Aspects of Intellectual Property Rights (TRIPS) Agreement, which was part of the Agreements concluding the Uruguay Round of GATT negotiations. India, as a member of the World Trade Organization (WTO), enacted the Geographical Indications of Goods (Registration & Protection) Act, 1999 has come into force with effect from 15th September 2003.

45. (c) Industry refers to an economic activity that is concerned with the production of goods, extraction of minerals or the provision of services.

47. (a) Level terrace or contour bunding involves construction of bind passing through the points having same elevation ploughing and/or planting across a slope following its elevation contour lines.

48. (a) Subsistance farming is self-sufficiency farming in which the farmers grow enough food to feed themselves and families. It is mostly practised in developing countries.
Shifting cultivation is a type/example of subsistence farming in which the farmers clear a patch of forest land by feeling and burning of trees and then crops are grown.

49. (b) Kochi is the Western most while Mathura is Eastern most. Also among these Panipat is most North while Koyali is most South.

50. (a) The tank irrigation is practised mainly in the peninsular India due to the following reasons
1. The undulating relief and hard rocks makes it difficult to dig canals and wells.
2. There is little percolation of rain water due to hard rock structure and ground water is not available in large quantity.
3. Most of the rivers of this region are seasonal and dry up in summer season. Therefore, they cannot supply water to canals throughout the year.
4. The scattered nature of population and agricultural fields also favours tank irrigation.

51. (c) Rural forestry (also known as community forestry) aims to raise the trees on community land and on privately owned land as in farm forestry.
Farm forestry encouraged individual farmers to plant trees on their own farmland to meet the domestic needs of the family.
All these schemes are taken up under the social forestry programme.

52. (b) The factors responsible for the decrease of per capita holding of cultivated land in India are
1. Rapid rate of increase of population.
2. Practice of dividing land equally among the heirs.

53. (a) Black soils retain moisture, so they becomes sticky and getting wet. They contain iron, lime, magnesium, alumina and potosh but lack phoshorous and nitrogen.

54. (c) Mining is removal of valuable raw material from the Earth, this terms includes removal of soil. India adds very little value to the minerals, it exports most of the mined minerals.
Indian Mining Industry has been a major mineral producer in Asia and globally as well.

55. (c) Middle latitude grassland farming have very large farms, are mechanised and fall in the category of extensive cultivation. Grassland are found all across the globe.

4 World Geography

1. Match List-I with List-II and select the correct answer from the codes given below:

	List-I		List-II
A.	Detroit	1.	Cutlery
B.	Pittsburgh	2.	Ship building
C.	Plymouth	3.	Iron and steel
D.	Sheffield	4.	Automobile

Codes:

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

2. Consider the following statements and select the correct answer from the codes given below:

Assertion (A): China is the most populous country of the world.

Reason (R): Its density of population is much lower than that of India.

Codes:

(a) Both A and R are true and R is the correct explanation of A.
(b) Both A and R are true, but R is not the correct explanation of A
(c) A is true, but R is false.
(d) A is false, but R is true.

3. Which one of the following is correctly matched?

(a) Gulf of Carpentaria — Italy
(b) Gulf of Sidra — Libya
(c) Gulf of Po hai — Thailand
(d) Gulf of Tonking — Malaysia

4. Arrange the following countries of South Asia in descending order of their population density and use the codes to select the correct answer:

1. India 2. Bangladesh
3. Pakistan 4. Srilanka

Codes:

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

5. Match List-I with List-II and select the correct answer from the code given below:

	List-I (Country)		List-II (Capital)
A.	Brunei	1.	Bander Seri Begawan
B.	Indonesia	2.	Phnom Penh
C.	Laos	3.	Vientiane
D.	Combodia	4.	Jakarta

Codes:

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

6. The correct sequence of languages in descending order in terms of their number of speakers in the world is

(a) Spanish, English, Chinese, Hindi
(b) English, Chinese, Hindi, Spanish
(c) Hindi, Chinese, Spanish, English
(d) Chinese, English, Hindi, Spanish

7. Which of the following pairs are correctly matched?

	(River)		(Countries)
1.	Niger	—	Guinea
2.	Orange	—	S. Africa
3.	Karai	—	Egypt
4.	Nile	—	Mali

Select the correct answer using the codes given below:

Codes:

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

8. Consider the following statements and select the correct answer from the codes given below:
Assertion (A): Japan is known for its fisheries in the world.
Reason (R): The continental shelf is wide all around Japan.
Select the correct answer from the codes given below:
Codes:
(a) Both A and R are true and R is the correct explanation of A.
(b) Both A and R are true, but R is not the correct explanation of A.
(c) A is true, but R is false.
(d) A is false, but R is true.

9. Which one of the following pairs is not correctly matched?
(a) Davis strait — Baffin Sea and Atlantic Ocean
(b) Dover strait — Arctic Sea and N. Atlantic Ocean
(c) Palk strait — Mannar Gulf and Bay of Bengal
(d) Sunda strait — Java Sea and Indian Ocean

10. Match List-I and List-II and select the correct answer from the codes given below:

	List-I (Type of winds)		**List-II (Region)**
A.	Blizzard	1.	Pairie Plains
B.	Chinook	2.	Siberian Plains
C.	Bora	3.	Greenland
D.	Khamsin	4.	Egypt

Codes:

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

11. Arrange the following continents in the ascending order of their areal size and select the correct answer from the codes given below:
1. Antarctica 2. Australia
3. Europe 4. South America
Codes:
(a) 1, 2, 3, 4 (b) 2, 4, 1, 3
(c) 2, 3, 1, 4 (d) 1, 3, 4, 2

12. Which one of the followiing pairs correctly matched?
(a) Black forest — Germany
(b) Pennines — France
(c) Sierra Nevada — Canada
(d) Vorges — Haly

13. Match List-I with List-II and select the correct answer from the codes:

	List-I		**List-II**
A.	Cape Horn	1.	India
B.	Cape Comorin	2.	Australia
C.	Cape of Good Hope	3.	Argentina
D.	Cape Yark	4.	South Africa

Codes:

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

14. Which one of the following is not correctly matched?
(a) Blizzard — Canada
(b) Brickfielder — France
(c) Harmattan — Niger
(d) Pampers — Argentina

15. Consider the following statements:
1. A desert is a barren area of land where little precipitation occurs.
2. The Sahara desert is the largest singles stretch desert.
3. The next biggest desert is the Great Australian desert.
Which of the statement(s) given is/are correct?
(a) 1 only (b) 1 and 2
(c) 2 and 3 (d) 1, 2 and 3

16. Match List-I with List-II and select the correct answer using the code given below:

	List-I (Current)		**List-II (Feature)**
A.	Kuroshio current	1.	Warm current in Atlantic Ocean
B.	Peru current	2.	Cold current in the Atlantic Ocean
C.	Labrador current	3.	Warm current in the Pacific Ocean
D.	Florida current	4.	Cold current in the Pacific Ocean

Codes:

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

17. Match List-I with List-II. Select the correct answer from the codes given below:

	List-I (Tribe)		**List-II (Region)**
A.	Semang	1.	Congo Basin
B.	Kirghiz	2.	Malaysia
C.	Bushman	3.	Central Asia
D.	Pygmies	4.	Kalahari desert

Codes:

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

18. Japan is one of the leading industrial countries in the world because it has:
    1. developed hydel power
    2. large deposits of metallic mineral
    3. high technological capability
    4. insular location

    Of these statements:
    (a) 1, 2 and 4 are correct
    (b) 1, 2 and 3 are correct
    (c) 1 and 3 are correct
    (d) 2 and 4 are correct

19. The correct decreasing order of the population of the various continents is
    (a) Asia, Europe, America, Africa, Australia.
    (b) Asia, America, Europe, Africa, Australia.
    (c) Asia, Eruope, Africa, America, Australia.
    (d) Asia, America, Africa, Europe, Australia.

20. Examine the following statements and select the correct answer using the codes given below:
    1. The greater part of Russia is having cold climate.
    2. Development of Russia is largely concentrated west of Ural mountains.
    3. Siberia is an important agricultural region of Russia.
    4. In Russia, Ural mountains separate the two extensive plains.

    Codes:
    (a) 1, 2 and 3 are correct.
    (b) 1, 3 and 4 are correct.
    (c) 1, 2 and 4 are correct.
    (d) 2, 3 and 4 are correct.

21. Match List-I with List-II and select the correct answer using the codes given below:

	List-I (Continent)		**List-II (Desert)**
A.	Asia	1.	Atacama
B.	Africa	2.	Great Sandy Desert
C.	Australia	3.	Kalahari
D.	South America	4.	Gobi

Codes:

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

22. Which of the following are temperate grasslands? Select the correct answer from the codes given below:
    1. Campos
    2. Llanoes
    3. Downs
    4. Pampas

    Codes:
    (a) 1 and 2 (b) 2 and 3
    (c) 3 and 4 (d) 1 and 4

23. Match List-I with List-II and select the correct answer from the codes given below:

	List-I	**List-II**
A.	Tin	1. Mexico
B.	Silver	2. Zambia
C.	Mica	3. Malaysia
D.	Copper	4. India

Codes:

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

24. Match List-I with List-II and select the correct answer from the codes given below:

	List-I (Crops)		List-II (Main producing area)
A.	Coconut	1.	Kenya
B.	Banana	2.	Papua New Guinea
C.	Groundnut	3.	Ecuador
D.	Tea	4.	Senegal

Codes:

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

25. Arrange the following islands of Japan in ascending order of their areal size and select the correct answer from the codes:
1. Hokkaido
2. Honshu
3. Shikoku
4. Kyushu

Codes:

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

26. Match List-I with List-II and select the correct answer from the codes:

	List-I (City)		List-II (River)
A.	St. Paul-Minneapolis	1.	Danube
B.	Khartoum	2.	Mekong
C.	Budapest	3.	Mississippi
D.	Phnom Penh	4.	Nile

Codes:

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

27. Which one of the following is not correctly matched?
(a) Duluth — Lake Superior
(b) Detroit — Lake Huron
(c) Chicago — Lake Michigan
(d) Ottawa — Lake Ontario

28. Match List-I and List-II and select the correct answer from the codes given below:

	List-I (Country)		List-II (River)
A.	Brazil	1.	Orinoco
B.	Argentina	2.	Maranon
C.	Peru	3.	Araguaia
D.	Venezuela	4.	Colorado

Codes:

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

29. Consider the following statements and select the correct answer from the codes given below:
Assertion (A): Japan has developed hydro-electric power on a large-scale.
Reason (R): Japan lacks adequate coal and oil deposits.

Codes:
(a) Both A and R are true and R is the correct explanation of A.
(b) Both A and R are true, but R is not the correct explanation of A.
(c) A is true, but R is false.
(d) A is false, but R is true.

30. Which of the following pairs of straights and the countries they separate is wrongly matched?
(a) Gibraltar strait — Spain and Morocoo
(b) Bering strait — Sumatra and Malaysia
(c) Magellan strait — Chile and Tiera del fuego
(d) Bass strait — Australia and Tasmania

31. Consider the following areas:
1. Central Africa
2. Borneo and Papua New Guinea
3. Amazon Basin

In which of the above areas is the primitive agriculture, such as shifting cultivation or bush-fallow type of cultivation, found?
(a) 1 only (b) 1 and 2
(c) 2 and 3 (d) 1, 2 and 3

32. Currently half of the world's population lives in just six countries. Identify them from the following.
(a) India, China, Pakistan, Brazil, Bangladesh, Indonesia.
(b) India, China, Brazil, Pakistan, Bhutan, United State.
(c) China, India, United State, Indonesia, Brazil, Pakistan.
(d) China, India, Bangladesh, United State, Pakistan, Brazil.

33. The expression 'South Asia' usually includes:
(a) Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka
(b) Nepal, Bhutan, India, Afghanistan, China and Pakistan
(c) Bangladesh, Bhutan, China, Maldives, Nepal and Pakistan
(d) Sri Lanka, Afghanistan, Bhutan, India, China, Nepal and Bangladesh

34. Consider the following countries:
1. Australia
2. Namibia
3. Brazil
4. Chile
Through which of the above does the tropic of Capricorn pass?
(a) 1 only (b) 2, 3 and 4
(c) 1, 2 and 3 (d) 1, 2, 3 and 4

35. Which of the following is not correctly matched?
(a) Indonesia — Jakarta
(b) Maldives — Male
(c) North Korea — Seoul
(d) Zimbabwe — Harare

36. Which of the following countries are landlocked countries?
1. Afghanistan
2. Hungary
3. Malaysia
4. Switzerland
Select the correct answer from the codes given below:
(a) 1 and 2 (b) 1, 2 and 3
(c) 2, 3 and 4 (d) 1, 2 and 4

37. Which one of the following pairs is not correctly matched?

	Tribes		**Countries**
(a)	Berber	—	Morocco
(b)	Inuits	—	Canada
(c)	Semangs	—	Indonesia
(d)	Veddas	—	Sri Lanka

38. Match List-I with List-II. Select the correct answer from the codes:

	List-I (Minerals)		**List-II (Important centres)**
A.	Copper	1.	Butte
B.	Diamond	2.	Katanga
C.	Gold	3.	Kimberley
D.	Silver	4.	Witwatersrand

Codes:

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

39. Which one of the following pairs is not correctly matched?

	Countries		**Capital**
(a)	Hungary	—	Budapest
(b)	Zaire	—	Kinshasa
(c)	Kenya	—	Nairobi
(d)	New Zealand	—	Christ Church

40. Consider the following statements and select the correct answer from the codes given below:
Assertion (A): The production of rubber is decreasing in the Amazon.
Reason (R): Equatorial climate is favourable for rubber plantation.
Codes:
(a) Both A and R are true and R is the correct explanation of A.
(b) Both A and R are true, but R is not a correct explanation of A.
(c) A is true, but R is false.
(d) A is false, but R is true.

41. Consider the following pairs:
1. St. Petersburg — Gulf of Finland
2. Stockholm — Baltic Sea
3. Washington D.C. — Colorado

Which of the pairs above is/are correctly matched?
(a) 1 only
(b) 1 and 2 only
(c) 2 and 3
(d) 1, 2 and 3

42. Which one of the following 'City River' pairs is not correctly matched?
(a) Berlin — Rhine
(b) London — Thames
(c) New York — Hudson
(d) Vienna — Danube

43. Match List-I with List-II and select the correct answer from the codes given below.

List-I (Mountains peak)		List-II (Country)
A.	Mt. Everest	1. India
B.	K2	2. Nepal
C.	Mt. McKinley	3. North America (USA)
D.	Mt. Aconcagua	4. South America

Codes:

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

44. Which one of the following is not correctly matched?

	Islands		Ocean
(a)	Greenlands	—	Arctic Ocean
(b)	Madagaskar	—	Indian Ocean
(c)	Tasmaniya	—	S. Pacific Ocean
(d)	Bafin	—	North Pacific Ocean

45. Match List-I with List-II and select the correct answer from the codes given below:

List-I (Countries new name)		List-II (Countries old name)
A.	Thailand	1. Nippon
B.	Ghana	2. Gold Coast
C.	Zambia	3. Siam
D.	Japan	4. Northern Rhodesia

Codes:

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

46. Which one of the following matches in case of shifting cultivation is not correct?
(a) Ladang – Indonesia
(b) Ray – Vietnam
(c) Milpa – Mexico
(d) Tamrai – Brazil

47. Which of the following is/are the stage(s) of demographic transition ?
1. High death rate and birthrate, low growth rate.
2. Rapid decline in death rate, continued low birthrate, very low growth rate.
3. Rapid decline in birthrate, continued decline in death rate
4. Low death rate and birthrate, low growth rate.

Select the correct answer using the codes given below
(a) Only 1 (b) 1, 2 and 3
(c) 3 and 4 (d) 1 and 4

48. Match the following

List-I (Local wind)		List-II (Area of Prevalence)
A.	Chinook	1. North African desert
B.	Foehn	2. Rocky mountain slopes of the USA
C.	Sirocco	3. Northern slopes of Alps
D.	Mistral	4. Sourthern slopes of Alps

Codes :

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

49. Match the following

List-I (Natural Vegetation of India)		List-II (Annual Rainfall Received)
A.	Tropical evergreen forests	1. 100-200 cm

B. Tropical deciduous forests	2.	Above 200 cm
C. Tropical dry forests	3.	Less than 50 cm
D. Arid forests	4.	Above 300 cm
	5.	50-100 cm

Codes :

	A	B	C	D
(a)	1	2	5	3
(b)	4	3	1	5
(c)	2	1	5	3
(d)	2	1	3	4

50. Which one of the following pairs is not correctly matched?
(a) Kuroshio : Warm ocean current
(b) Labrador : Warm ocean current
(c) Benguela : Cold ocean current
(d) Oyashio : Cold ocean current

51. Which one among the following is the idealised global pattern of surface wind from the Equator to Pole ?
(a) Doldrum-Westerlies-Trade Wind-Easterlies
(b) Easterlies-Westerlies-Trade Wind-Easterlies
(c) Doldrum-Trade wind-Westerlies-Easterlies
(d) Westerlies-Trade Wind-Doldrum-Easterlies

52. Consider the following statements
1. A hurricane acquires its spin from the coriolis effect.
2. The diameter of the hurricane decreases as it moves away form low latitudes.
3. The diameter of a hurricane is never below 150 km.

Which of the statements given above is/are correct?
(a) Only 1 (b) 2 and 3
(c) 1 and 3 (d) All of these

53. Which of the following seas are enclosed?
1. Andaman Sea 2. Arab Sea
3. Sea of Azov 4. Bering Sea

Select the correct answer using the codes given below
(a) 1 and 2 (b) 3 and 4
(c) 2 and 3 (d) 1 and 4

54. Consider the following statements
1. Suez Canal is an important link between developed countries and developing countries.
2. It joins the Mediterranean Sea with the Gulf of Suez
3. It is not a sea level canal.

Which of the statement given above is/are correct?
(a) 1 and 2 (b) 1 and 3
(c) 2 and 3 (d) Only 1

55. Match List-I (*Volcano*) with List-II (*Country*) and select the correct answer using the code given below the Lists:

List-I (Volcano)	**List-II (Country)**
A. Semeru	1. Indonesia
B. Cotopaxi	2. Equador
C. Etna	3. Italy
D. Kilimanjaro	4. Kenya
	5. India

Codes :

	A	B	C	D		A	B	C	D
(a)	1	2	3	4	(b)	3	4	5	2
(c)	1	4	3	2	(d)	3	2	5	4

56. Consider the following statements in respect of temperate cyclones:
1. They rise in the belt of trade winds.
2. They move from west to east.

Which of the statements given above is/are correct?
(a) Only 1 (b) Only 2
(c) Both 1 and 2 (d) Neither 1 nor 2

57. Consider the following statements :
1. The Labrador current is a cold current in the North Atlantic Ocean.
2. The Falkland current is a warm current that flows along the Chile coast of South Pacific Ocean.

Which of the statements given above is/are correct?
(a) Only 1 (b) Only 2
(c) Both 1 and 2 (d) Neither 1 nor 2

58. Consider the following statements:
1. All cyclones develop an eye at the centre.
2. The temperature inside the eye is nearly 10°C lesser than that of the surroundings.

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

59. Consider the following statements:
1. The approach of a cyclone is characterised by a rise in baromenic reading.
2. In the cyclones of the nonthern hemisphere, the winds circulate in anticlockwise direction.

Which of the statements given above is/are correct?
(a) 1 only (b) 2 only
(c) Both1 and 2 (d) Neither 1 nor 2

60. Consider the following statements:
1. International Date Line lies on the Greenwich Meridian.
2. The date of Alaska is ahead of the date of Siberia.
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

61. Consider the following statements:
1. In tropical grassland regions, rainfall mainly occurs in the short summer season with a long dry season.
2. In Mediterranean region, the winter rainfall is caused by the passage of cyclones in the westerly wind belt which lies over this area.
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

62. Match List I with List II and select the correct answer using the codes given below the lists:

	List I (Volcano)		List II (Country)
A.	Mount Etna	1.	India
B.	Kilinanajaro	2.	U S A
C.	Katmai	3.	Tanzania
D.	Barren Island	4.	Italy

Codes:

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

63. Consider the following statements
1. International Date Line is drawn zigzag to avoid landmass.
2. International Date Line is 180° W as well as 180° E of Greenwich.
3. A ship sailing westward from Greenwich when crossing International Date Line would put back the date by a day.
Which of the statements given above is/are correct?
(a) 1 and 2 (b) 1 and 3
(c) 1, 2 and 3 (d) 3 only

64. Which of the following statements are correct?
1. In a cyclone, the area of low pressure is at the centre surrounded by the areas of high pressure
2. In a cyclone, the areas of low pressure surround the area of high pressure
3. In an anti-cyclone, the area of high pressure is surrounded by the areas of low pressure
4. In an anti-cyclone, the area of low pressure is surrounded by the areas of high pressure
Select the correct answer using the code given below:
Code:
(a) 1 and 2 (b) 1and 3
(c) 1 and 4 (d) 2 and 4

65. Which among the following statements about the North Atlantic Drift is/are correct?
I. It keeps the west coast of Northern Europe ice free
II. It is responsible for the warm air mass which interacts with the cold air mass from the Polar region and causes rainfall in Western Europe
III. It meets the Labrador current near Vancouver Island and causes dense fog
Select the correct answer using the code given below
(a) I, II and III (b) I and II only
(c) II only (d) I and III only

66. Match List I with List II and select the correct answer using the code given below the lists:

	List I (Desert)		List II (Country)
A.	Kalahari	1.	Angola
B.	Namib	2.	Sudan
C.	Nubian	3.	Botswana
D.	Atacama	4.	Chile

Code:
(a) A-4; B-2; C-1; D-3
(b) A-3; B-2; C-1; D-4
(c) A-4; B-1; C-2; D-3
(d) A-3; B-1; C-2; D-4

67. Match List I with List II and select the correct answer using the code given below the lists:

List I (Current)		List II (Feature)
A.	Kuroshio current	1. Warm current in Atlantic Ocean
B.	Peru current	2. Cold current in the Atlantic Ocean
C.	Labrador current	3. Warm current in the Pacific Ocean
D.	Florida current	4. Cold current in the Pacific Ocean

Code:

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

68. Which of the following statements regarding hurricanes is/are correct?

1. They develop over the ocean between 8° – 15° N.
2. They are almost absent in the South Atlantic Ocean.
3. They do not develop close to the equator.

Select the correct answer using the code given below.

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

69. Consider the following statements regarding El Nino effect on Indian Monsoon :

1. The surface temperature goes up in the Southern Pacific Ocean and there is deficient rainfall in India.
2. The Walker Circulation shifts eastward from its normal position and reduces monsoon rainfall in India.

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

ANSWER KEY															
1.	(d)	**10.**	(c)	**19.**	(c)	**28.**	(d)	**37.**	(c)	**46.**	(d)	**55.**	(a)	**64.**	(b)
2.	(b)	**11.**	(c)	**20.**	(c)	**29.**	(a)	**38.**	(b)	**47.**	(d)	**56.**	(b)	**65.**	(b)
3.	(b)	**12.**	(a)	**21.**	(b)	**30.**	(b)	**39.**	(d)	**48.**	(a)	**57.**	(a)	**66.**	(d)
4.	(d)	**13.**	(d)	**22.**	(c)	**31.**	(d)	**40.**	(b)	**49.**	(c)	**58.**	(a)	**67.**	(a)
5.	(a)	**14.**	(b)	**23.**	(c)	**32.**	(c)	**41.**	(b)	**50.**	(b)	**59.**	(c)	**68.**	(a)
6.	(d)	**15.**	(d)	**24.**	(a)	**33.**	(a)	**42.**	(a)	**51.**	(c)	**60.**	(d)	**69.**	(c)
7.	(a)	**16.**	(a)	**25.**	(d)	**34.**	(d)	**43.**	(a)	**52.**	(d)	**61.**	(c)		
8.	(c)	**17.**	(d)	**26.**	(d)	**35.**	(c)	**44.**	(d)	**53.**	(c)	**62.**	(d)		
9.	(b)	**18.**	(c)	**27.**	(b)	**36.**	(d)	**45.**	(a)	**54.**	(b)	**63.**	(c)		

Hints & Solutions

1. (d) Detroit – Automobile
   Pittsburgh – Iron and steel
   Plymouth – Ship building
   Sheffield – Cutlery
   All these industrial cities are located in different provinces of the United States of America.

2. (b) The population density (people per sq. km) in China was last reported at 143.43 in 2010, according to a World Bank report published in 2012.
   As per the provisional population totals of Census 2011, the population density of India has gone up to 382 persons per square kilometre.

3. (b) Gulf of Carpentaria – Australia
   Gulf of Sidra – Libya
   Gulf of Po hai – China
   Gulf of Tonking – Vietnam
   All these are names of gulfs associated with the following countries.

5. (a) Brunei – Bander seri begawan
   Indonesia – Jakarta
   Laos – Vientiane
   Combodia – Phnom Penh
   All these are names of south-Asian countries with the names of their capitals.

7. (a) The Niger river is the principal river of western Africa, extending about 4,180 km. Its drainage basin is 2,117,700 km^2 in area. Its source is in the Guinea Highlands in southeastern Guinea. The Orange river, Gariep river, Groote river or Senqu river is the longest river in South Africa. It rises in the Drakensberg mountains in Lesotho, flowing westwards through South Africa to the Atlantic Ocean.

8. (c) The continental shelf is narrow all around Japan. Around the Japanese Islands, the continental shelf is 20 to 30 km wide, narrower than its world average, with shelf-slope breaks of the average depth of 140 metres. Narrow shelves are located offshore the western coast of the Oshima Peninsula, around Toyama Bay, and offshore from the Boso Peninsula to the Kii Peninsula. The selves in Toyama Bay, Sagami Bay, and Suruga Bay are extremely narrow, less than 1 km in width in closed-off sections of the bays. Continental shelf slopes are not flat from shorelines through outer edges, but terrace-like topography (submarine terraces) and submarine valleys are found. Submarine valleys are often filled up with sediments derived from land.

9. (b) Dover strait – English Channel and North Sea. The Strait of Dover or Dover Strait is the strait at the narrowest part of the English Channel, marking the boundary between the Channel and North Sea, separating Great Britain from continental Europe.

10. (c) Blizzard – Siberian Plains. A blizzard is a severe snowstorm caused by strong sustained winds of at least 56 km/h (35 mph) and lasting for a prolonged period of time – typically three hours or more.
Chinook – Prairie Plains. Chinook winds blows in the interior west of North America, where the Canadian Prairies and Great Plains meet various mountain ranges, although the original usage is in reference to wet, warm coastal winds in the Pacific Northwest of the United States of America.
Bora – Green land. Cold and usually dry katabatic winds, like the Bora, result from the downslope gravity flow of cold, dense air. Katabatic flows slumping down from uplands or mountains may be funneled and strengthened by the landscape and are then known as mountain gap wind.
Khamsin – Egypt. Khamsin can be triggered by depressions that move eastwards along the southern parts of the Mediterranean or along the North African coast from February to June. In Egypt, Khamsin usually arrives in April but occasionally occurs between March to May, carrying great quantities of sand and dust from the deserts, with a speed up to 140 kilometres per hour, and a rise of temperatures as much as 20°C in two hours.
11. (c) 2, 3, 1, 4 – Australia – Europe – Antarctica – South America.
12. (a) Black forest – Germany. The Black Forest is a wooded mountain range in Baden-Württemberg, southwestern Germany. It is bordered by the Rhine valley to the west and south. The highest peak is the Feldberg with an elevation of 1,493 metres.
13. (d) Cape Horn – Argentina
Cape Comorin – India
Cape of Good Hope – South Africa
Cape Yark – Australia
14. (b) Brickfielder – Australia. The Brickfielder is a hot and dry wind in the desert of southern Australia that occurs in the summer season. It blows in the coastal regions of the south from the outback, where the sandy wastes, bare of vegetation in summer, are intensely heated by the sun.
15. (d) A desert is a barren area of land where little precipitation occurs and consequently living conditions are hostile for plant and animal life. Deserts take up about-one third of the Earth's land surface. Both hot and cold deserts play a part in moderating the Earth's temperature. Across the world, around 20% of desert is sand, varying from only 2% in North America to 30% in Australia and over 45% in central Asia and Africa.
16. (a) A. Kuroshio current- warm Pacific current
B. Peru current - cold current in Pacific ocean
C. Labrador current - cold current in Atlantic ocean
D. Florida current - Warm current in Atlantic ocean
17. (d) Semang – Malaysia
Kirghiz – Central Asia
Bushman – Kalahari desert
Pygmies – Congo Basin
All these names are of the tribal communities belonging to the countries respectively.
21. (b) Asia – Gobi
Africa – Kalahari
Australia – Great Sandy Desert
South America – Atacama
All these are names of deserts located in the continents respectively.
22. (c) Downs – grassy plains called downs are located in New Zealand's South Island and southeast Australia.
Pampas – South America's largest grassland, called pampas, which means plain, covers most east-central areas of Argentina.
23. (c) Tin – Malaysia
Silver – Mexico
Mica – India
Copper – Zambia
All these are names of minerals found in the given countries respectively.
24. (a) Coconut – Papua New Guinea
Banana – Ecuador
Groundnut – Senegal
Tea – Kenya
All these are names of commercial crops found in the countries respectively.
25. (d) Shikoku – Kyushu – Hokkaido – Honshu
Honshu – Honshu has a total area of 88,017 square miles (227,962 sq km) and it is the world's seventh largest island.

Hokkaido – Hokkaido is the second largest island of Japan with a total area of 32,221 square miles (83,453 sq km).

Kyushu – It has a total area of 13,761 square miles (35,640 sq km).

Shikoku – Shikoku is the smallest of Japan's main islands with a total area of 7,260 square miles (18,800 sq km).

26. (d) St. Paul-Minneapolis – Mississippi. The Mississippi river is the chief river of the largest drainage system in North America. Flowing entirely in the United States (though its drainage basin reaches into Canada), it rises in northern Minnesota and meanders slowly southwards for 2,320 miles (3,730 km) to the Mississippi river delta at the Gulf of Mexico.

Khartoum – Nile. The Nile is a major north-flowing river in northeastern Africa, generally regarded as the longest river in the world. It is 6,853 km long.

Budapest – Danube. The Danube is a river in central Europe, the European Union's longest and the continent's second longest.

Phnom Penh – Mekong. The Mekong is a trans-boundary river in south east Asia. It is the world's 12th longest river and the 7th longest in Asia. Its estimated length is 4,350 km, and it drains an area of 795,000 km^2, discharging 457 km^3 of water annually.

27. (b) Detroit is situated lake Erie. Detroit is the most populous city in the U.S. state of Michigan, and is the seat of Wayne County, the most populous county in the state and the largest city on the United States – Canada border.

28. (d) Brazil – Araguaia. The Araguaia river is one of the major rivers of Brazil, and the principal tributary of the Tocantins, though it is almost equal in volume at its confluence with the Tocantins. It has a total length of approximately 2,627 km.

Argentina – Colorado. The Colorado river is the principal river of the southwestern United States and northwest Mexico. The 1,450-mile river drains an expansive, arid watershed that encompasses parts of seven U.S. and two Mexican states.

Peru – Maranon. The Marañón river is the principal or mainstem source of the Amazon river, arising about 160 km to the northeast of Lima, Peru, and flowing through a deeply eroded Andean valley.

Venezuela – Orinoco. The Orinoco is one of the longest rivers in South America at 2,140 km. Its drainage basin, sometimes called the Orinoquia, covers 880,000 square kilometres, with 76.3% of it in Venezuela and the remainder in Colombia.

29. (a) Hydroelectricity is Japan's main renewable energy source, with an installed capacity of about 27 GW and a production of 69.2 TWh of electricity in 2009, making Japan one of the biggest hydroelectricity producers in the world.

30. (b) Bering strait divides Alaska and Russia.

32. (c) China – India – United State – Indonesia – Brazil – Pakistan

33. (a) South Asia or southern Asia is the southern region of the Asian continent, which comprises the sub-Himalayan countries and for some authorities, also includes the adjoining countries to the west and the east. South Asia includes 10 countries and 2 territories:

Afghanistan, Bangladesh, Bhutan, India, Iran, Maldives, Myanmar, Nepal, Pakistan and Sri Lanka.

Two territories: British Indian Ocean Territory and Tibet (China).

35. (c) North Korea – Pyong-Yong (It is the capital of North Korea.)

37. (c) Semang – Malaysia

38. (b) A. Copper – Katanga
B. Diamond – Kimberley
C. Gold – Witwatersrand
D. Silver – Butte

40. (b) Cultivation of rubber in Brazil, its native habitat, was severely hindered by blight in the early 20th century. At present, most of the world's natural rubber is produced by rubber trees descended from rubber seedlings transplanted from South America to south and south east Asia. The most severe disease is South American Leaf Blight (SALB). This disease is endemic throughout the rubber growing areas in the Americas. It also poses a major global threat. The

fungus can be controlled by a number of fungicides. Some species are not susceptible to the disease, and some strains of susceptible species are resistant. Crown budding or grafting of resistant plants onto productive trees can be used to control spread.

43. (a) Mt. Everest – Nepal
K2 – India
Mt. McKinley – USA
Mt. Aconcagua – South America
All these are the names of highest mountain peaks located in the countries respectively.

44. (d) Baffin – North Atlantic Ocean. Baffin Island, in the Canadian territory of Nunavut, is the largest island in Canada and the fifth largest island in the world. Its area is 507,451 km^2 and its population is about 11,000.

45. (a) 1. Thailand – Siam
2. Ghana – Gold Coast
3. Zambia – Northern Rhodesia
4. Japan – Nippon.

47. (d) Demographic transition refers to the transition from high death rate and high birth rate to low death and birth rates, as a country develops from a pre-industrial to industrialised economic system.

48. (a)

Local Wind	Area of Prevalence
1. Chinook	Rocky mountain slopes of the USA
2. Foehn	Northern slopes of Alps
3. Sirocco	North African desert
4. Mistral	Sourthern slops of Alps

49. (c)

List-I (Natural Vegetation of India)	List-II (Annual Rainfall Received)
A. Tropical evergreen forests	1. Above 200 cm
B. Tropical deciduous forests	2. 100-200 cm
C. Tropical dry forests	3. 50-100 cm
D. Arid forests	4. Less than 50 cm

50. (b) The labrador current is a cold current in the North Atlantic ocean which flows form the Arctic ocean South along with the coast of labrador and passes around New Foundland continuing South along the East coast of Nova Satia.

51. (c) From the Equator to Pole the idealised global pattern of surface wind is
Doldrum > Trade wind > Westerlies > Easterlies

52. (d) A hurricane is a tropical cyclone, occurring in the North Atlantic ocean or the North-East Pacific ocean, East of International Date Line.

53. (c) Arab sea is a sea that lay between Kazakhstan in North and Uzbekistan in South. The sea of Azov is a sea on the South of Eastern Europe.

54. (b) The suez canal joins the mediterrahean sea with the Red sea, it is an artificial sea level waterway in Egypt also known as 'The highway to India'. It was opened in 1869.

55. (a) A. Semeru Volcano is situated in Indonesia.
B. Cotopaxi Volcano is situated in Equador.
C. Etma Voplcano is situated in Italy.
D. Kilomanjaro Vaolcano is situated in Kenya.

56. (b) Temperatre cyclone rises in middle latitude between 35° and 65° latitudes. This region is the belt of western winds.

57. (a) The Falkand current is a cold current. It flows along the Argentina's coast in South Atlantic Ocean.

58. (a) At the centre of a cyclone is an area of calm called the eye. The eye is usually about 40 km in diameter.
Air in the centre of a cyclone is less dense than air around it because the temperature inside the eye is greater than that of the surroundings.

59. (c) Cyclone is a mass of air whose isobars form an oval or circular shape, with low pressure at the centre. The air converge at the centre and rises to disposed off. In a dipression, the winds rotate anticlockwise in northern hemisphere. While in the southern hemisphere, the circular movement of winds is in clockwise direction.

60. (d) Meridian is 0° longitude and international date line is 180° longitude. A person travelling wastwards of the Prime Meridian up to 180° W will put his watch back by 12 hours and the other person eastwards upto 180° will have to put his watch 12 hours forward. Alaska is in west and Siberia is in East. So, the date of Siberia is head of the date of Alaska.

61. (c) Tropical grassland located mainly in the continental areas of tropical latitudes where rains fall during the summer season which lasts for about five months. In Mediterranean region, the winter rainfall due to middle latitude fronts and cyclones.

62. (d) Mount Etna (Italy), Kilimanjaro (Tanzania), Katmai (USA) and Barren Island (India-Andaman & Nicobar island)

63. (c) International date line lies between 180°W and 180ºE of Greenwitch. It is drawn zigzag to avoid landmass. There is a difference in 1 day if a ship sails westward from Greenwitch by crossing the date line.

64. (b) In a cyclone, the area of low pressure is at the centre surrounded by the areas of high pressure. In an anti-cyclone, the area of high pressure is surrounded by the areas of high pressure.

65. (b) The North Atlantic current or Drift or sea movement is a powerful warm ocean current that continues the gulf stream northeast, which stretches from Florida to north- western Europe. It moderates the chilled climate of western Europe.

66. (d) A. Kalahari – Botswana
B. Namib – Angola
C. Nubian – Sudan
D. Atacama – Chile.

67. (a) a. Kuroshio current - warm Pacific current
b. Peru current - cold current in Pacific ocean
c. Labrador current - cold current in Atlantic ocean
d. Florida current - Warm current in Atlantic ocean

68. (a) Hurricanes develop over the oceans between 8°-15° N. The term "tropical" refers to the geographical origin of these systems, which usually form over the tropical oceans. The term "cyclone" refers to their cyclonic nature, with wind blowing counterclockwise in the Northern Hemisphere and clockwise in the Southern Hemisphere. The opposite direction of circulation is due to the Coriolis force. Depending on its location and strength, a tropical cyclone is referred to by names such as hurricane, typhoon, tropical storm, cyclonic storm, tropical depression and simply cyclone.

69. (c) El Nino is a shift in ocean temperatures and atmospheric conditions in the tropical Pacific that disrupts weather around the world. It is a poorly understood recurrent climatic phenomenon that primarily affects the Pacific coast of South America, but has dramatic impacts on weather patterns all over the world. In the Indian Ocean, it affects the movement of the monsoon winds.

5 Geography of India

1. Which of the following statements are correct?
   1. Assam shares a border with Bangladesh and Bhutan.
   2. West Bengal shares a border with Bhutan and Nepal.
   3. Meghalaya shares a border with Bangladesh and Myanmar.

   (a) 1, 2 and 3 (b) 1 and 2
   (c) 2 and 3 (d) 1 and 3
2. The Himalayan range is very rich in species diversity. Which one among the following is most appropriate reason for this phenomenon?
   (a) It has high rainfall that supports luxuriant vegetative growth
   (b) It is a confluence of different bio-geographical zones.
   (c) Exotic and invasive species have not been introduced in this region.
   (d) It has less human interference.
3. Which one of the following is correctly matched?
   (a) Bauxite – Rajasthan
   (b) Copper – Madhya Pradesh
   (c) Iron ore – Uttar Pradesh
   (d) Mica – Jharkhand
4. Which of the following factors are responsible for the rapid growth of sugar production in south India as compared to north India?
   1. Higher per acre field of sugarcane
   2. Higher sucrose content of sugarcane
   3. Lower labour cost
   4. Longer crushing period

   (a) 1 and 2 (b) 1, 2 and 3
   (c) 1, 3 and 4 (d) 1, 2 and 4
5. Which one of the following is the correct descending order of the three most populous states of India (2011)?
   (a) Uttar Pradesh, Maharashtra, Bihar
   (b) Maharashtra, Bihar, West Bengal
   (c) Uttar Pradesh, Bihar, West Bengal
   (d) Uttar Pradesh, West Bengal, Bihar
6. Match List-I with List-II and select the correct answer from the codes given below:

List-I (Tribe)	**List-II (State)**
A. Lepcha	1. Madhya Pradesh
B. Malpaharia	2. Rajasthan
C. Gond	3. Sikkim
D. Bhill	4. Jharkhand

Codes :

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

7. Which one of the following statements is true?
   (a) The Tungabhadra Project serves the states of Kerla and Tamil Nadu.
   (b) The Kundoh Project lies in Karnataka.
   (c) The Salal Project serves the states of Himachal Pradesh.
   (d) The Sharavathy Project is located at the Jog falls.
8. Consider the following statements and select the correct answer by using the codes given below:

   Assertion (A): There has been some decline in the growth rate of India's population in recent years.

   Reason (R): According to 2011 census, about 3/4 of Indian's population is literate.

Codes:

(a) Both A and R are true and R is the correct explanation of A.

(b) Both A and R are true, but R is not the correct explanation of A.

(c) A is true, but R is false.

(d) A is false, but R is true.

9. Match List-I with List-II and select the correct answer from the codes given below:

List-I (Atomic power plant)	**List-II (State)**
A. Kalpakkam	1. Gujarat
B. Kakrapar	2. Karnataka
C. Kaiga	3. Rajasthan
D. Rawatbhata	4. Tamil Nadu

Codes:

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

10. Which of the following pairs is not correctly matched?

	(Soil)		**(State)**
(a)	Alluvial	—	Uttar Pradesh
(b)	Regur	—	Maharashtra
(c)	Laterite	—	Punjab
(d)	Red and yellow	—	Chhattisgarh

11. Golden Quadrilateral Project is

(a) Conversion of meter gauge into broad gauge.

(b) Construction of four lane highways joining four metropolises of India.

(c) Joining of four important rivers of north India and south India.

(d) Joining of four important cities of India with air transport.

12. Which one of the following statements is not correct about laterite soils in India?

(a) These soils were first studied by Buchanan.

(b) These are the typical soils of the tropical areas with reasonal rainfall.

(c) These soils are poor in iron but rich in nitrogen.

(d) These are well developed on the summits of the Sahyadris and Eastern Ghats.

13. Which one of following statements is not correct?

(a) Konyak language is the language of Nagaland.

(b) The largest river island is the world is in Assam.

(c) Arunachal Pradesh has the least density of population in India.

(d) The biggest desert of the world is in India.

14. Match List-I with List-II and select the correct answer from the codes given below:

List-I (Biosphere reserve)	**List-II (State)**
A. Agasthyamalai	1. Arunachal Pradesh
B. Dibru-Saikhowa	2. Meghalaya
C. Dihong Dibang	3. Kerala
D. Nokrek	4. Assam

Codes:

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

15. Consider the following statements and select the correct answer by using the codes given below:

Assertion (A): In South India, semi arid steppe climate is found in parts of Karnataka plateau.

Reason (R): It lies in rain shadow area of Sahyadris.

Codes:

(a) Both A and R are correct and R is the correct explanation of A.

(b) Both A and R are correct, but R is not the correct explanation of A.

(c) A is true, but R is false.

(d) A is false, but R is true.

16. Which of the following are not the examples of shifting cultivation?

Select the correct answer from the codes given below:

1. Ladang
2. Jhum
3. Pondu
4. Fazenda

Codes:

(a) 1 and 4 (b) 3 and 4

(c) 1, 2, and 3 (d) 2 and 4

17. Match List-I with List-II and select the correct answer using the codes given below:

List-I (Tributary)		List-II (Rivers)
A.	Chambal	1. Narmada
B.	Sone	2. Yamuna
C.	Manas	3. Brahmaputra

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

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

18. Consider the following areas of forests:
1. Andaman and Nicobar Islands forests.
2. Ilambur tract of Kerala.
3. Low outorop of Garo and Khasi hills.
4. Mikir hills upto 1000 metres.

Which of the above areas have tropical wet evergreen forests?

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

19. Which one of the following pairs is not correctly matched?

National Park		State
(a) Kanha National Park	—	Madhya Pradesh
(b) Sultanpur National park	—	Haryana
(c) Ranthambore National park	—	Gujarat
(d) Bandipur National Park	—	Karnataka

20. Match List-I with List-II and select the correct answer from the codes given below:

List-I (Hill resorts)		List-II (State)
A.	Dalhousie	1. Jammu and Kashmir
B.	Darjeeling	2. Himachal Pradesh
C.	Mussoorie	3. West Bengal
D.	Pahalgam	4. Uttarakhand

Codes:

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

21. Consider the following statements and select the correct answer by using the codes given below:

Assertion (A): Assam is the largest producer of tea in India.

Reason (R): Cheap tribal labour is available in abundance in Assam

Codes:
(a) Both A and R are true and R is the correct explanation of A.
(b) Both A and R are true, but R is not the correct explanation of A.
(c) A is true, but R is false.
(d) A is false, but R is true.

22. Arrange the following states of India in ascending order of their areal size and select the correct answer from the codes given below:
1. Andhra Pradesh 2. Madhya Pradesh
3. Maharashtra 4. Uttar Pradesh

Codes:
(a) 4, 1, 3, 2 (b) 4, 3, 1, 2
(c) 1, 2, 3, 4 (d) 3, 1, 2, 4

23. Consider the following statements about south-west monsoon.
1. It occurs from June to September
2. Its direction is north-east to south-west.
3. It gives maximum rainfall as compared to other monsoon.
4. It has no branch.

Of these statement(s) is/are correct?

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

24. Interior of the Deccan plateau receives an annual rainfall of less than 60 cm, mainly because
(a) It is a rain shadow zone/region.
(b) It is located parallel to wind direction.
(c) It is away from the coast.
(d) Rain-bearing clouds are absent.

25. Match the following two lists and select the codes given below:

List-I		List-II
A.	Coal	1. Bhandera
B.	Gold	2. Karanpura
C.	Mica	3. Hutti
D.	Manganese	4. Nellore

Codes:

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

26. Consider the following statements:
    1. As per census 2011, the population growth rate of Nagaland during 2001–2011 was the lowest among the states of India.
    2. As per census 2011, the population growth rate of Dadra and Nagar Haveli was the highest among the states of India/Union territory.

    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

27. Arrange the following states in the descending order of literacy as per census report of 2011 and select the correct answer from the codes given at the end.
    1. Kerala 2. Manipur
    3. Tamil Nadu 4. Himachal Pradesh

    Codes:
    (a) 1, 4, 3, 2 (b) 4, 1, 3, 2
    (c) 2, 4, 1, 3 (d) 1, 2, 3, 4

28. A state in India has the following characteristics:
    1. It northern part is arid and semiarid.
    2. Its central part produces cotton.
    3. Cultivation of cash crops is predominant over food crops.

    Which one of the following states has all of the above characteristics?
    (a) Andhra Pradesh (b) Gujarat
    (c) Karnataka (d) Tamil Nadu

29. As per geological periods the correct sequence of order of the following is
    1. Aravalli 2. Himalayas
    3. Deccan plateau 4. Eastern Ghat

    Codes:
    (a) 1, 2, 3, 4 (b) 4, 3, 2, 1
    (c) 1, 4, 3, 2 (d) 2, 1, 4, 3

30. Which of the following reasons is responsible for the protests against the Tehri Dam Project?
    (a) The vulnerability of the dam region to earthquakes.
    (b) The environmental distance caused by the project.
    (c) The problem of displacement of the local people.
    (d) All of the above

31. Arrange the following languages in decreasing order of their speakers in India.
    (a) Hindi, Bengali, Telugu, Marathi, Tamil, Urdu.
    (b) Urdu, Tamil, Marathi, Telugu, Bengali, Hindi.
    (c) Hindi, Marathi, Bengali, Urdu, Telugu, Tamil.
    (d) Hindi, Tamil Telugu, Marathi, Bengali, Urdu.

32. Which one of the following statements is not correct regarding tank irrigation in peninsular India?
    (a) Percolation of rainwater is less due to hard rock.
    (b) Most of the rivers are seasonal and dry up in summer reason.
    (c) Underground water level is higher
    (d) Rainwater can be easily stored by constructing tanks.

33. Examine the following statements and select the correct answer using the codes given below:
    1. Rihand Dam is on a tributary of the Son river.
    2. Hirakund Dam is on the Mahanadi river.
    3. Tungabhadra Project is a joint venture of the Andhra Pradesh and Karnataka states.
    4. Kosi is known as the 'Sorrow of Bihar'.

    Codes:
    (a) 1, 2 and 3 are correct.
    (b) 2, 3, and 4 are correct.
    (c) 1, 3 and 4 are correct.
    (d) 1, 2, 3 and 4 are correct.

34. Consider the following statements and select the correct answer by using the codes given below:
    Assertion (A): India enjoys tropical monsoon climate.
    Reason (R): India is located within the tropics.

    Select the correct answer from the following codes:
    Codes:
    (a) Both A and R are true and R is the correct explanation of A.
    (b) Both A and R are true, but R is not the correct explanation of A.
    (c) A is true, but R is false.
    (d) A is false, but R is true.

35. Arrange the following mountain ranges from north to south order and select the correct answer from the codes:
1. Dholadhar
2. Ladakh
3. Pirpanjal
4. Zaskar

Codes:
(a) 2, 4, 1, 3 (b) 4, 2, 1, 3
(c) 2, 4, 3, 1 (d) 4, 2, 3, 1

36. Match List-I with List-II and select the correct answer from the codes given below:

	List-I		**List-II**
A.	Valley town	1.	Mussoorie
B.	Confluence town	2.	Rishikesh
C.	Gate town	3.	Tehri
D.	Ridge town	4.	Dehradun

Codes:

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

37. Consider the following specific stages of demographic transition associated with economic development:
1. Low birth rate with low death rate.
2. High birth rate with high death rate.
3. High birth rate with low death rate.

Select the correct order of the above stages using the codes given below:

Codes:
(a) 1, 2, 3 (b) 2, 1, 3
(c) 2, 3, 1 (d) 3, 2, 1

38. Which one of the following years is known as the 'Year of the Great Divide' with regard to population, after which there has been a continuous and rapid growth in India's population?
(a) 1911
(b) 1921
(c) 1941
(d) 1951

39. Match List-I with List-II and select the correct answer using the codes given below:

	List-I		**List-II**
A.	Vikram Sarabhai Space Centre	1.	Bangalore
B.	SHAR Centre	2.	Thumba
C.	Space Application Centre	3.	Sri Harikota
D.	ISRO Satellite Centre	4.	Ahmedabad

Codes:

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

40. Consider the following statements:
1. In India, natural rubber is produced in southern India only.
2. Among the coffee growing states of India, the lowest average yield per hectare of plucked coffee is in Kerala.

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

41. Among the following states, which one has the most suitable climatic conditions for the cultivation of a large variety of orchids with minimum cost of production and can develop an export oriented industry in this field?
(a) Goa
(b) U.P.
(c) M.P
(d) Arunachal Pradesh

42. Which of the following shows the correct geographical spread of the plateaus?
1. Chota Nagpur Plateau – much of Jharkhand, West Bengal and adjacent parts of Orissa, Bihar and Chhattisgarh.

2. Deccan Plateau – Vindhyas to the north and flanked by the Eastern and Western Ghats.
3. Malwa Plateau – Rajasthan, Madhya Pradesh and Gujarat.
4. Malwa Plateau – Rajasthan, Maharashtra and Gujarat.

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

43. Which of the following shows the correct match of India's natural resource with their world-wide production rank?
(a) Rank 1 - barites and chromites; Rank 2 - iron ore; Rank 3 - mica blocks and mica splitting; Rank 4 - coal; Rank 5 - bauxite and crude steel
(b) Rank 1 - bauxite and crude steel; Rank 2 - mica blocks and mica splitting; Rank 3 - coal; Rank 4 - barites and chromites; Rank 5 - iron ore
(c) Rank 1 - coal; Rank 2 - mica blocks and mica splitting; Rank 3 - iron ore; Rank 4 - bauxite and crude steel; Rank 5 - barites and chromites
(d) Rank 1 - mica blocks and mica splitting; Rank 2 - barites and chromites; Rank 3 - coal; Rank 4 - iron ore; Rank 5 - bauxite and crude steel

44. Which of the following statements about alluvial soils of India are correct?
1. These are mostly clay soils and form deep cracks during dry season.
2. Usually they are very productive soils.
3. These soils occur at high elevations as well as at low elevations.
4. Many of these soils are deficient in nitrogen, humus and phosphorus.

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

45. Which of the following are aims of scientific deep drilling project in the Koyna intra-plate seismic zone?
1. To provide an opportunity to understand the mechanism of reservoir-triggered earthquakes.
2. To develop measures to prevent earthquake in a stable continental region.
3. To give insights into Deccan volcanism.
4. To provide insights into the mass extinction, thermal structure and state of stress in the lithosphere and geothermal potential of the West Coast Belt as well as the geothermal record of climate change in the region.

Select the answer from the codes given below:
(a) 1, 2, and 3 (b) 2, 3, and 4
(c) 1, 3, and 4 (d) All of the above

46. Which of the following National Park's uniqueness lies in its man-made lakes and ancient reservoirs, which have merged into the natural system as vital sources of water? It also has a large populaton of panthers, the second largest predators of the forest.
(a) Ranthambore National Park
(b) Bandavgarh National Park
(c) Bharatpur National Park
(d) Kanha National Park

47. Match List-I with List-II and select the correct answer using the codes given below.

List-I (Lakes)		**List-II (States)**
A.	Loktak	1. Maharashtra
B.	Pulicut	2. Jammu-Kashmir
C.	Lonar	3. Tamil Nadu
D.	Wular	4. Manipur

Codes:

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

48. Match List-I with List-II and select the correct answer using the codes given below the Lists:

List-I (Tribes)		**List-II (States)**
A.	Oraon	1. Kerala
B.	Khond	2. Gujarat
C.	Chenchu	3. Jharkhand
D.	Todai	4. Odisha

Codes:

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

49. Consider the following statements and choose the correct codes given below:
    1. Jhum cultivation is adopted in North-Eastern State of India.
    2. Jhum cultivation is a process of afforestation.
    (a) 1 only
    (b) 2 only
    (c) Both 1 and 2
    (d) Neither 1 nor 2

50. Which one among the following is the correct sequence of the rivers from north to south?
    (a) Damodar-Brahmani-Mahanadi-Tungabhadra
    (b) Damodar-Mahanadi-Brahmani- Tungabhadra
    (c) Brahmani-Tungabhadra-Damodar- Mahanadi
    (d) Damodar-Brahmani-Tungabhadra- Mahanadi

51. Consider the following sanctuaries of India:
    1. Periyar
    2. Dachigam
    3. Sariska
    4. Kanha
    Which one among the following is the correct sequence of locations of the above sanctuaries from south to north?
    (a) 1, 4, 2, 3 (b) 4, 1, 3, 2
    (c) 1, 4, 3, 2 (d) 3, 1, 4, 2

52. Match List-I with List-II and select the correct answer using the codes given below.

List-I (Hydroelectric power station)	**List-II (Location in map)**
A. Nagarjuna Sagar	
B. Mettur	
C. Hirakud	
D. Sileru	

Codes:

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

53. Match List-I with List-II and select the correct answer using the codes given below:

List-I		**List-II**
A.	Gulf Stream	1. Pacific Ocean
B.	West Wind Drift	2. A slow eastward movement of water over the zone of westerly wind
C.	Peru Current	3. Indian Ocean
D.	West Australian Current	4. Warm current

Codes:

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

54. Match List-I with List-II and select the correct answer from the codes given below:

List-I (Times of climate)		**List-II (Region)**
A.	A_w	1. Rain shadow zone of Karnataka
B.	Am_w	2. Thar Desert
C.	BSh_w	3. W. Bengal and Bihar
D.	BWh_w	4. Malabar Coast

Codes:

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

55. Match List-I with List-II and select the correct answer from the codes given below:

List-I (Rivers)		**List-II (Their Tributaries)**
A.	Krishna	1. Chambal
B.	Brahamaputra	2. Indravati
C.	Godavari	3. Tista
D.	Yamuna	4. Bhima

Codes:

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

56. Match List-I with List-II and select the correct answer from the codes given below:

List-I (Soils)		**List-II (State)**
A.	Alluvial	1. Rajasthan
B.	Black soil (Regur)	2. Uttar Pradesh
C.	Desert	3. Maharashtra
D.	Red	4. Meghalaya

Codes:

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

57. Match List-I with List-II and select the correct answer from the codes given below:

List-I (Pass)		**List-II (State)**
A.	Shipki La	1. Arunachal Pradesh
B.	Niti pass	2. Himachal Pradesh
C.	Nathula	3. Uttarakhand
D.	Bomdi La	4. Sikkim

Codes:

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

58. Which of the following are UNESCO recognised world heritage sites ?
1. Caves of Ajanta
2. Temple and Caves at Ellora
3. Mandapas of Mahabalipuram
4. Caves of Kanheri

Select the correct answer using the codes given below

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

59. Consider the following sanctuaries of India
1. Periyar 2. Dachigam
2. Sariska 4. Kanha

Which one among the following is the correct sequence of location of the above sanctuaries from South to North?

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

60. Which of the following statements about Nathu La Pass are correct ?
1. It links Sikkim with Tibet
2. It was the main artery of the ancient Silk Route
3. It was reopened in the year 2006

Select the correct answer using the codes given below

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

61. Match the following

List-I (Dam)		**List-II (River)**
A.	Ukai dam	1. Beas
B.	Bhakra dam	2. Krishan
C.	Nagarjuna Sagar dam	3. Sutlej
D.	Pandoh dam	4. Tapi (Tapi)

Codes :

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

62. Arrange the following tributaries of river Brahmaputra from West to East.
1. Lohit 2. Dibang
3. Subansiri 4. Tista

Select the correct answer using the codes given below

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

63. Match the following

List-I (River)		**List-II (Tributary)**
A.	Ganga	1. Chambal and Ken
B.	Indus	2. Wainganga and Indravati
C.	Yamuna	3. Chenab and Sutlej
D.	Godavari	4. Gomti and Kosi

Codes :

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

64. Match the following

List-I (Tribal Group)	List-II (State where Predominantly Located)
A. Reang	1. Arunachal Pradesh
B. Dimasa	2. Nagaland
C. Konyak	3. Tripura
D. Mishmi	4. Asom

Codes :

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

65. Arrange the following oil refineries of India from West to East

1. Koyali
2. Bongaigaon
3. Mathura
4. Haldia

Select the correct answer using the codes given below

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

66. Match the following

List-I (Biosphere Reserve)	List-II (Places)
A. Manas	1. Meghalaya
B. Pachmarhi	2. Asom
C. Nokrek	3. Madhya Pradesh
D. Achanakmar Amarkantak	4. Chhattisgarh

Codes :

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

67. Which among the following monoculture crops provide(s) immediate cash to the farmers?

1. Tea in Asom
2. Rubber in Africa
3. Sugarcane in Malaysia
4. Coffee in Brazil

(a) Only 1 (b) 2 and 3
(c) 3 and 4 (d) 1 and 4

68. Which one of the following is the correct sequence of the given tiger reserves of India from North to South?

(a) Dudwa-Kanha-Indravti-Bandipur
(b) Kanha-Bandipu-Dudwa-Indravati
(c) Idravati-Kanha-Dudwa-Bandipur
(d) Dudwa-Kanha-Bandipur-Indravati

69. Which of the following statements with regard to the expansion of the desert in Rajasthan is/are correct?

1. The predominant wind direction in Rajasthan in North-East to South-West, so the tendency for desertification has been more in that direction.
2. The Thar desert is dominantly a monsoon driven sand desert where wind erosion is a major problem during the summer months. While the Aravalli range is a major barrier in the spread of the desert, rampant mining creating cuts in the range is leading to the spread of the desert.

Select the correct answer using the codes given below

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

70. Consider the following places of Kashmir region

1. Sri Nagar
2. Gilgit
3. Kargil
4. Banihal

Arrange the above place from North to South using the code given below

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

71. Which of the following statements with regard to rainfall in India is/are correct?

1. Most of the rainfall in India is due to the South-West monsoon.
2. In South India, rainfall decreases away from the Eastern Ghats.

Select the correct answer using the codes given below

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

72. Consider the following statements
1. Jim Corbett National Park is the oldest national park of India.
2. It was one of the nine tiger reserves created at the launch of the Project Tiger in 1973.
3. Initially it was named as 'Hailey National Park'.

Which of the statement given above are correct?
(a) 1 and 2 (b) All of these
(c) 2 and 3 (d) 1 and 3

73. Consider the following statements
1. In the month of July, the Inter Tropical Convergence Zone is located in the Indo Gangetic plain.
2. Northen Inter Tropical Convergence Zone is the zone of clouds and heavy rainfall.

Which of the statement given above is/are correct?
(a) Only 1 (b) Only 2
(c) Both 2 and 2 (d) Neither 1 nor 2

74. Which of the following factors is/are responsible for high concentration of jute mills in the Hugli basin?
1. Nearness to coal fields.
2. Convenient dry climate for spinning and weaving.

Select the correct answer using the codes given below
(a) Only 1 (b) Only 2
(c) Both 1 and 2 (d) Neither 1 nor 2

75. Consider the following regions of India
1. Western Ghats
2. Aravalli Hills
3. Eastern Himalayas

Which of the above is/are biodiversity hot spot/hot spots?
(a) Only 1 (b) 1 and 3
(c) 2 and 3 (d) All of the above

76. Match the following

List-I (Pass)	List-II (State)
A. Zoji La Pass	1. Sikkim
B. Bara Lacha Pass	2. Uttarakhand
C. Jelep La Pass	3. Himachal Pradesh
D. Niti Pass	4. Jammu and Kashmir

Codes :

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

77. Match the following

List-I (River)	List-II (Tributary)
A. Brahamaputra	1. Musi
B. Krishna	2. Tawa
C. Narmada	3. Bhavani
D. Kaveri	4. Dikhow

Codes :

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

78. What is the correct order to occurrence of the following places as one moves from East to West?
(1) Murshidabad (2) Gorakhpur
(3) Bhopal (4) Bhavnagar

Select the correct answer using the codes given below
(a) 2, 4, 3, 1 (b) 1, 3, 4, 2
(c) 1, 2, 3, 4 (d) 4, 3, 2, 1

79. Consider the following statements
The South-West monsoon originates in India due to
1. low pressure in the Punjab plain.
2. high pressure in areas South of India
3. equatorial low being filled up by descending air current.
4. the Himalayas.

Which of the statements given above are correct?
(a) 1 and 4 (b) 1 and 2
(c) 1 and 3 (d) 2 and 4

80. Consider the following statements
1. The Golden Quadrilateral connects the four major cities of Delhi, Mumbai, Bengaluru and Kolkata.
2. The North-South corridor will pass through Hyderabad.

Which of the statements given above is/are correct?

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

81. Consider the following statements

1. Dakshin Gangotri is India's second scientific manned station in Antarctica after Maitri.
2. The National Centre for Antarctic and Ocean Research is situated at Goa.

Which of the statements given above is/are correct?

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

82. Match List-I (*Atomic Power Plant*) with List-I (*State*) and select the correct answer using the codes given below the Lists:

List-I (Atomic Power Plant)	**List-II (State)**
A. Kalpakkam	1. Karnataka
B. Narora	2. MadhyaPradesh
C. Rawatbhata	3. Maharashtra
D. Tarapur	4. Rajasthan
	5. Tamil Nadu
	6. Uttar Pradesh

Codes :

	A	B	C	D		A	B	C	D
(a)	1	6	4	2	(b)	1	4	6	2
(c)	5	6	4	3	(d)	5	4	6	3

83. Match List-I (*Town*) with List-II (*Factory/Plant*) and select the correct answer using the codes given below the Lists:

List-I (Town)	**List-II (Factory/Plant)**
A. Namrup	1. Aluminium Plant
B. Vishakhapatnam	2. Steel Plant
C. Perambur	3. Fertilizer Plant
D. Renukoot	4. Integral Coach Factory

Codes :

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

84. Match List-I (*Town*) with List-Il (*River*) and select the correct answer using the codes given below the Lists:

List-I (Town)	**List-II (River)**
A. Nanded	1. Godavari
B. Nellore	2. Tungbhadra
C. Hospet	3. Musi
D. Hyderabad	4. Penneru

Codes :

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

85. Match List-I and List-II and select the correct answer using the codes given below :

List-I (Product)	**List-II (Major Producer)**
A. Tea	1. Andhra Pradesh
B. Jute	2. Kerala
C. Rubber	3. Orissa
D. Tobacco	4. Tamil Nadu

Codes :

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

86. Match List I with List II and select the correct answer using the code given below the Lists :

List-l (Mineral)	**List-II (Mine)**
A. Bauxite	1. Balaghat
B. Copper	2. Korba
C. Iron ore	3. Singareni
D. Coal	4. Keonjhar

Codes :

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

87. Match List I with List II and select the correct answer using the code given below the Lists :

List-I (Industry)	**List-II (Industrial Centre)**
A. Aluminium	1 Coimbatore
B. Heavy Electricals	2. Renukoot
C. Petrochemicals	3. Vadodara
D. Cotton Textiles	4. Jagdishpur

Codes :

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

88. Match List I with List II and select the correct answer using the code given below the Lists:

List-I (National Highway No.)	**List-II (Cities connected)**
A. NH 5	1. Bhopal-Jaipur
B. NH 7	2. Bhubaneswar-Chennai
C. NH 9	3. Nagpur-Varanasi
D. NH 12	4. Pune-Hyderabad

Codes :

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

89. Consider the following statements :
1. Alamatti dam is on the Cauvery river.
2. Mettur dam in on the Krishna river.
3. Gandhi Sagar Reservoir is on the Chambal river.

Which of the statements given above is/are correct?
(a) 1 and 2 only (b) 2 only
(c) 1 and 3 only (d) 3 only

90. Consider the following statements :
1. Kandla port is situated at the head of Gulf of khambhat.
2. Paradeep Port is situated in the Mahanadi Delta.

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

91. Match List-I with List-II and select the correct answer using the code given below the Lists :

	List-I (Type of vegetation)		**List-II (State)**
A.	Mangrove	1	Madhya Pradesh
B.	Scrub	2	Karnataka
C.	Teak	3	Rajasthan
D.	Coniferous	4	Arunachal Pradesh

Codes :

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

92. Which of the following has/have been declared as national waterways in India ?
I. The Allahabad-Haldia stretch of river Ganga
II. The Sadiya-Dhubri stretch of river Brahmaputra
III. The Cherla-Rajamundry stretch of river Godavari

Select the correct answer using the code given below
(a) I and II oniy (b) II and III only
(c) I only (d) I, II and III

93. Which of the following statements is/are correct?
I. Mumbai receives more rainfall than Pune because it is located at the windward side of Western Ghats
II. Vidarbha region experiences semi-arid climate as it is located in a rain shadow region
III. In India monsoon reaches Kashmir valley at the last

Select the correct answer using the code given below :
(a) I, II and III (b) I and II only
(c) II and III only (d) I only

94. Which of the following statements regarding south-west monsoon in India is/are correct?
I. Monsoon reaches the Malabar coast first
II. Rajasthan does not get rainfall from south west monsoon
III. South-west monsoon retreats when the permanent wind belts start shifting to the south

Select the correct answer using the code given below :
(a) I, II and III (b) I and II only
(c) III only (d) I and III only

95. Consider the following statements

I. In India, the largest concentration of roads is found in the northern plains

II. The ratio of surfaced road to the total road length is lower in the northern plains.

Which of the statements given above is/are correct?

(a) I only (b) II only

(c) Both I and II (d) Neither I nor II

96. Match List I with List II and select the correct answer using the code given below the lists:

	List I (Mineral)		**List II (State)**
A.	Bauxite	1.	Andhra Pradesh
B.	Mica	2.	Orissa
C.	Copper	3.	Madhya Pradesh
D.	Zinc	4.	Rajasthan

Codes :

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

97. Match List-I with List-II and select the correct answer using the code given below the Lists :

	List-I (Port)		**List-II (Special feature)**
A.	Kandla	1.	Deepest landlocked protected port
B.	Kochi	2.	Located at mouth of lagoon
C.	Vishakhapatnam	3.	Tidal port
D.	Kolkata	4.	Inland riverine port

Codes :

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

98. Consider the following coal mines of India :

1. Bokaro 2. Adilabad

3. Raniganj 4. Bishrampur

Select the correct sequence of the above from east to west.

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

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

99. Match List-I with List-II and select the correct answer using the code given below the Lists :

	List-I (Mountain pass)		**List-II (State)**
A.	Zoji La	1.	Himachal Pradesh
B.	Lipulekh	2.	Sikkim
C.	Shipki La	3.	Uttarakhand
D.	Nathu La	4.	Jammu and Kashmir

Codes :

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

100. Match List I with List II and select the correct answer using the code given below the Lists :

	List I (Himalayan Peak)		**List II (State)**
A.	K2	1.	Uttarakhand
B.	Nanda Devi	2.	Jammu & Kashmir
C.	Tara Pahar	3.	Sikkim
D.	Kanchenjunga	4.	Himachal Pradesh

Codes :

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

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

1. The local time of Itanagar (Arunachal Pradesh) is about two hours ahead than Dwarka (Gujarat).
2. The local time at Chennai (Tamil Nadu) and Lucknow (Uttar Pradesh) is almost same.
3. The local time of Mumbai (Maharashtra) is one hour ahead than Kolkata (West Bengal).

Select the correct answer using the code given below :

(a) 1 and 2 only (b) 2 only

(c) 1 and 3 only (d) 1, 2 and 3

ANSWER KEY

1.	(b)	**12.**	(c)	**23.**	(b)	**34.**	(c)	**45.**	(c)	**56.**	(c)	**67.**	(c)	**78.**	(c)	**89.**	(d)	**100.**	(b)
2.	(b)	**13.**	(d)	**24.**	(a)	**35.**	(c)	**46.**	(a)	**57.**	(a)	**68.**	(a)	**79.**	(a)	**90.**	(b)	**101.**	(a)
3.	(d)	**14.**	(d)	**25.**	(d)	**36.**	(c)	**47.**	(a)	**58.**	(b)	**69.**	(c)	**80.**	(b)	**91.**	(c)		
4.	(d)	**15.**	(a)	**26.**	(c)	**37.**	(c)	**48.**	(a)	**59.**	(c)	**70.**	(c)	**81.**	(b)	**92.**	(a)		
5.	(a)	**16.**	(c)	**27.**	(a)	**38.**	(b)	**49.**	(a)	**60.**	(a)	**71.**	(a)	**82.**	(c)	**93.**	(a)		
6.	(b)	**17.**	(d)	**28.**	(b)	**39.**	(b)	**50.**	(a)	**61.**	(c)	**72.**	(b)	**83.**	(c)	**94.**	(a)		
7.	(d)	**18.**	(c)	**29.**	(c)	**40.**	(a)	**51.**	(c)	**62.**	(b)	**73.**	(a)	**84.**	(a)	**95.**	(c)		
8.	(a)	**19.**	(c)	**30.**	(d)	**41.**	(d)	**52.**	(c)	**63.**	(b)	**74.**	(b)	**85.**	(d)	**96.**	(b)		
9.	(b)	**20.**	(c)	**31.**	(a)	**42.**	(b)	**53.**	(a)	**64.**	(b)	**75.**	(b)	**86.**	(b)	**97.**	(b)		
10.	(c)	**21.**	(a)	**32.**	(c)	**43.**	(d)	**54.**	(a)	**65.**	(b)	**76.**	(c)	**87.**	(a)	**98.**	(b)		
11.	(b)	**22.**	(a)	**33.**	(d)	**44.**	(b)	**55.**	(a)	**66.**	(d)	**77.**	(b)	**88.**	(c)	**99.**	(d)		

Hints & Solutions

1. (b) Meghalaya shares border only with Bangladesh.
2. (b) It is a confluence of different biographical zones.
3. (d) Mica–Jharkhand. Jharkhand is large producer of mica. Jharkhand has richest mica belt and accounts for 60% of India's production in terms of value. Here, mica is found in a belt extending for about 150 km in length and 32 km in width from Gaya district of Bihar to Hazaribagh and Kodarma districts of Jharkhand. Kodarma is a well-known place for mica production in Jharkhand which produces more than 50% of the total mica production in India.
5. (a) Reference-Census 2011
   U.P., Maharashtra, Bihar
6. (b) Lepcha – Sikkim
   Malpaharia – Jharkhand
   Gond – Rajasthan
   Bhill – Madhya Pradesh
7. (d) The Sharavathi Project is located at the Jog falls. The Sharavathi Hydro Electric Project is today the backbone of Karnataka's power generating arsenal. The Sharavathi Generating Station with its 10 units has an installed capacity of 1035 MW and the Linganamakki Dam Powerhouse with 2 units has an installed capacity of 55 MW. To further tap the potential of the Sharavathi river, KPCL has installed at the Gerusoppa Dam Project, four generating units of 60 MW each, totalling to 240 MW.
8. (a) Because India's 73% population is literate so we can say the growth of Indian population has been decline in recent years.
9. (b) Kalpakkam–Tamil Nadu. Madras Atomic Power Station is located at Kalpakkam. It has a comprehensive nuclear power production, fuel reprocessing, and waste treatment facility that includes plutonium fuel fabrication for fast breeder reactors (FBRs). It is also India's first fully indigenously constructed nuclear power station. It has two units of 220 MW capacity each.

Kakrapar – Gujarat. The Kakrapar Atomic Power Station is a nuclear power station in India, which lies in the proximity of the city of Surat in the state of Gujarat. It consists of two 220 MW pressurized water reactors with heavy water as moderator.

Kaiga – Karnataka. Kaiga generating station is a nuclear power generating station situated at Kaiga, near the river Kali, in Uttar Kannada district of Karnataka, India. The plant has been in operation since March 2000 and is operated by the Nuclear Power Corporation of India. It has four units. On 27 November 2010, the Kaiga Atomic Power Station unit 4 of 220 MW capacity became operational

Rawatbhata – Rajasthan. The Rajasthan Atomic Power Station in India is located about 65 kilometres from Kota by way of the Chambal river, approximately 3 kilometres above the dam that holds the Rana Pratap Sagar lake.

10. (c) Hint: Laterite soils prevalent and easy to found in Kerala, Tamil Nadu, etc. in India.

11. (b) Construction of four lane highways joining four metropolises of India. The overall length of the quadrilateral is 5,846 km consisting of four / six lane express highways. The project was estimated to cost INR 600 bn ($13.2bn) but was completed at about half of the estimated costs, at INR 308.58 bn. The whole length of the quadrilateral was operational by January 2012.

12. (c) These soils are poor in iron and rich in nitrogen.
Hint: Literite soils are rich in iron and poor in nitrogen.

13. (d) The biggest desert of world is in India.
Hint: Biggest desert of the world is in Africa.

14. (d) Agasthyamalai – Kerala. The Agasthyamalai hills also called the Ashambu hills, lie at the extreme southern end of the Western Ghat mountain range along the western side of South India. There are at least 26 peaks over 1,600 metres among these hills.

Dibru-saikhowa – Assam. Dibru-Saikhowa National Park is a national wildlife park in Tinsukia, Assam, India. Dibru-Saikhowa national park is located at about 12 km north of Tinsukia town of Assam covering an area of 350 km^2.

Dihang-Dibang – Arunachal Pradesh. Dihang-Dibang or Dehang-Debang is a biosphere reserve constituted under the Man & Biosphere Programme. It is in the Indian state of Arunachal Pradesh.

Nokrek – Meghalaya. Nokrek National Park, or Nokrek Biosphere Reserve, is a national park located approximately 2 km from Tura Peak in West Garo Hills district of Meghalaya, India. UNESCO added this national park to its list of Biosphere Reserves in May 2009.

15. (a) Hint: Due to rain shadow area of Sahyadri, the regions between Karnataka and Andhra Pradesh have become semi-arid.

16. (c) Ladang, Jhum and Pondu are the examples of shifting cultivation. Shifting cultivation is an agricultural system in which a person uses a piece of land, only to abandon or alter the initial use a short time later.

This system often involves clearing of a piece of land followed by several years of wood harvesting or farming until the soil loses fertility.

Once the land becomes inadequate for crop production, it is left to be reclaimed by natural vegetation, or sometimes converted to a different long-term cyclical farming practice.

This system of agriculture is often practised at the level of an individual or family, but sometimes may involve an entire village.

17. (d) Manas is a tributary of Brahmaputra and Chambal and Son are tributary of Yamuna and Ganga respectively.

19. (c) Ranthambore National Park is in Rajasthan. Ranthambore was established as the Sawai Madhopur Game Sanctuary in 1955 by the Government of India and was declared one of the Project Tiger reserves in 1973. Ranthambore became a national park in 1980. In 1984, the adjacent forests were declared the Sawai Man Singh Sanctuary and Keladevi Sanctuary.Ranthambore Wildlife Sanctuary is known for its tigers and is one of the best places in India to see these majestic predators in the jungle. Tigers can be easily spotted even during the daytime.

20. (c) Dalhousie – Himachal Pradesh
Darjeeling – West Bengal
Mussoorie – Uttarakhand
Pahalgam – Jammu and Kashmir
All these are the names of famous hill stations located in these states respectively.

21. (a) Assam tea is a black tea named after the region of its production, Assam, in India. Assam tea is manufactured specifically from the plant *Camellia sinensis var. assamica* (Masters).

22. (a) Arranged their real size in ascending order – U.P. – Andhra Pradesh – Maharashtra – Madhya Pradesh.

23. (b) South west monsoon occurs from June to September and gives maximum rainfall as compared to other monsoon. Its direction is south-west.

24. (a) It is a rain shadow zone. A rain shadow is an area of dry land on the leeward side of a mountain.

25. (d) Coal – Karanpura.
Gold – Bhander.
Mica – Nellore
Manganese – Hutti
All these are names of mines of different minerals in different places in India.

26. (c) Reference-Census 2011. Final data.

27. (a) Descending order of literacy census report of 2011 – Kerala – Himachal Pradesh – Tamil Nadu – Manipur.

28. (b) Gujarat. The total geographical area of Gujarat is 19,602,400 hectares, of which crops take up 10,630,700 hectares. The three main sources of growth in Gujarat's agriculture are from cotton production, the rapid growth of high-value foods such as livestock, fruits and vegetables, and from wheat production, which saw an annual average growth rate of 28% between 2000 and 2008.

29. (c) Aravalli – Eastern Ghat – Deccan plateau – Himalaya.

31. (a) Hindi–Bengali–Telugu–Marathi–Tamil–Urdu.

32. (c) Underground water level is less in peninsular region of India and high in north region of India.

34. (c) India is located in the middle of tropic of cancer.

35. (c) North to South – Ladakh – Zaskar – Pirpanjal – Dholadhar

36. (c) Valley town – Dehradun. Dehradun, a capital city of Uttarakhand situated in the northern part of India. Dehradun is called a beautiful town that is located in the Doon Valley surrounded by the Shivalik hills, a mountain range of the outer Himalayas. The Doon city is world famous for its natural scenic beauty, which includes some visually attractive landscapes and enjoyable climate.

Confluence town – Tehri. Tehri is a beautiful town in the state of Uttarakhand. It is also known as the municipal board of Tehri Garhwal District in Uttarakhand. It is one of the largest districts in Uttarakhand. It is considered as one of the holiest places of the state as it has numerous temples and is located at the confluence of the holy rivers, Ganga and Yamuna.

Gate town – Rishikesh. Rishikesh is called the main gate to heaven as the most holy Char Dham Yatra as specified in Hindu mythology begins from here. The buses and taxies are available at Rishikesh for this Yatra of Badrinath, Kedarnath, Gangotri, and Yamunotri. Rishikesh is a small town, having population of around 80,000 people. It is located very close to Haridwar at a distance of around 15 miles.

Ridge town – Mussoorie. Located on a 15 km long horseshoe ridge with the grand Himalayas as a backdrop, the colonial hill resort of Mussoorie spreads across at a height of 2,005.5 m above sea level. From this vantage point, Mussoorie offers superb scenic view of peaks of the Himalayas in western Garhwal.

38. (b) '1921' is the year of great divide. The year 1921 is taken as the demographic divide for the reason that before this year, the population was not stable, sometimes it increased and at other times it decreased. The growth rate of population was generally low before 1921. But after this year, there has been considerable and continuous increase in the population.

39. (b) Vikram Sarabhai space centre – Thumba
SHAR – Sri Harikota
Space application centre – Ahmedabad
ISRO Satellite Centre – Bangalore
All these are names of space centers in different places of India, respectively.

40. (a) During 2012-13, India produced 912,200 tons of rubber registering 0.9% rise over the previous financial year.

41. (d) Arunachal Pradesh. Arunachal is endowed with rich variety of orchids found in almost all parts of the state. Number of them are ornamentals with exquisite beauty. The Orchid Society of India (established in 1984) decided to open regional chapters to spread the message of conservation and promotion of orchids throughout the country. The chapter for Arunachal, Assam and Tripura was entrusted to Dr. S. N. Hegde, Orchidologist.

42. (b) The correct geographical spread of the plateaus is as follows:
1. Chota Nagpur Plateau - Jharkhand and adjacent parts of Odisha, Bihar and Chhattisgarh.
2. Deccan Plateau - Vindhyas to the north and flanked by the Eastern and Western Ghats.
3. Malwa Plateau - Rajasthan, Madhya Pradesh and Gujarat.

43. (d) India is the world's biggest producer of mica blocks and mica splittings. India ranks second amongst the world's largest producers of barites and chromites. India is the third-largest coal producer in the world and ranks fourth in the production of iron ore. It is the fifth-largest producer of bauxite and crude steel.

44. (b) Alluvial soils occur along rivers and represent the soil materials that have been deposited by the rivers during flood. Usually they are very productive soils but many are deficient in nitrogen, humus and phosphorus.
Black soils are mostly clay soils and form deep cracks during dry season. An accumulation of lime is generally noticed of varying depths. They are popularly known as "Black cotton soils" because of their dark brown colour and suitability for growing cotton. These are also known as Indian regurs. These soils are deficient in nitrogen, phosphoric acid and organic matter but rich in calcium, potash and magnesium

45. (c) The objective of the project is to undertake the investigations of 6-8 kilometers in a deep borehole in the Koyna-Warna region of Maharashtra. For past five decade, the earthquakes have been occurring in the restricted area of 20×30 square kilometer, which includes the earthquake of magnitude of 6.3 in December 1967. Koyna–Warna area is the best site in the world, which acts as a natural laboratory to study reservoir-triggered earthquakes. A research laboratory will be set up at Karad as a part of the project, which will serve as the operational center for carrying out the research activities related to seismic, deep drilling, borehole investigations, core analysis and research in associated fields.

46. (a) The Ranthambore National Park, set against the backdrop of the historic 1000-year-old Ranthambore Fort, lies in the area where the ancient ranges of the Vindhyas' flat-topped hills merge with the sharp ridges of the Aravalis. Ranthambore also has a large populaton of panthers, the second largest predators of the forest. Marsh Crocodiles abound in the lakes and Gharial can be spotted close by in the Chambal River, which also harbors the Gangetic Dolphin. An open jeep safari also affords a glimpse of the spectacular ruins of mosques, tombs, watchtowers and palaces scattered within the park.

50. (a) Damodar (West Bengal, Bihar), Brahamani (Jharkhand), Mahanadi (Odisha), Tungabhadra (Andhra Pradesh) and Karnataka.

51. (c) Periyar (Kerala), Kanha (M.P.), Sariska (Rajasthan), Dachigam (J.K.) is the correct sequence from south to north.

59. (c) Periyar National Park → Kerala
Kanha National Park → Madhya Pradesh
Sariska National Park → Rajasthan
Dachigam National Park → Jammu and Kashmir

60. (a) Nathu La is a mountain pass in the Himalayas. It connects the Indian state of Sikkim with China's Tibet Autonomous Region. Sealed by India after 1962 Snio - Indian war, Nathu La was re-opened in 2006, following numerous bilateral trade agreements.

62. (b) The tributaries of river Brahmaputra from West to East is Tista, Subansiri, lohit and Dibang.

63. (b)

	River	Tributary
A.	Ganga	Gomti and Kosi
B.	Indus	Chenab and Sutlej
C.	Yamuna	Chabai and Ken
D.	Godavari	Wainganga and Indravati

64. (b)

	Tribal Group	State
A.	Reang	Tripura
B.	Dimasa	Asom
C.	Konyak	Nagaland
D.	Mishmi	Arunachal Pradesh

65. (b) A. Koyali – (near Yadodra, Gujarat)
B. Bongaigaon – (Assam)
C. Mathura – (Uttar Pradesh)
D. Haldia – (Kolkata, West Bengal)

66. (d) A. Manas – Asom
B. Pachmarhi – Madhya Pradesh
C. Nokrek – Meghalaya
D. Achanakumar Amarkantak – Chhattisgarh

67. (c) In terms of agriculture, cash crops are those crops which are grown for cash in tropical and sub-tropical areas Jute, coffee, cocoa, sugarcane, bananas, oranges and cotton are common cash crops.

68. (a)
A. Dudwa National Park – Uttar Pradesh
B. Kanha National Park – Madhya Pradesh
C. Indravati National Park – Chhattisgarh
D. Bandipur National Park – Karnatka

69. (c) The Thar desert (Rajasthan) is a large, arid region in the North-western part of the Indian subcontinent and forms a natural boundary running along the border between India and Pakistan.

70. (c) From North to South of Kashmir region.
1. Gilgit 2. Kargil
3. Sri Nagar 4. Banihal

71. (a) In South India, rainfall decreases from the Western Ghats towards the East.

72. (b) Jim Corbett Park was established in 1936 as Hailey National Park. It was rewared in 1956 as Jim Corbett National Park after the name of hunter and conservationist of Jim Corbett. He played major role in the establishment of this park. It is oldest national park of the country. The national park was the first to come under Project Tiger initiative, which was launched in 1973, initially 9 tiger reserves were created.

73. (a) The Inter Tropical Convergence Zone (ITCZ), also known as the doldrum, by the sailors, is the area encircling the Earth near the equator where winds originating in the Northern and Southern Hemisphere come together.

74. (b) India is the largest producer of jute goods in the world. The jute industry is second most important industry in India. India produces 35% of all jute in the world. Hugli basin is located in Western, due to its dry climate, if is convenient for spinning and weaving.

75. (b) India was spot of the world's vast biodiverse region. It hosts three biodiversity regions-the Western Ghats. Eastern Himalyas and the hilly ranges that straddles the India-Myanmar border. Aravalli Hills have no biodiversity hot spot.

76. (c)

List-I (Pass)	List-II (State)
A. Zoji La Pass	1. Sikkim
B. Bara Lacha Pass	2. Uttarakhand
C. Jelep La Pass	3. Himachal Pradesh
D. Niti Pass	4. Jammu and Kashmir

77. (b)

List-I (River)	List-II (Tributary)
A. Brahamaputra	1. Musi
B. Krishna	2. Tawa
C. Narmada	3. Bhavani
D. Kaveri	4. Dikhow

78. (c) The correct sequence from East to West is
1. Murshidabad (Paschim Banga)
2. Gorakhpu (Uttar Pradesh)
3. Bhopal (Madhya Pradesh)
4. Bhavnagar (Gujarat)

79. (a) The South-West monsoon is generally expected to being around the start of June and fade down by the end of September. India receives majority of rainfall from this South-West monsoon.

80. (b) The Golden Quadrilateral is a highway network connecting India's four largest metropolis– Delhi, Mumbai, Chennai and Kolkata. The project is initiated by former Prime Minister Atal Bihari Bajpayee. The GQ project is managed by the National Highways Authority of India (NHA).

The north-south-east-west corridor is the lartest ongoing highway project in India.

81. (b) National Centre for Antarctic and Ocean Research (NCAOR) is an Indian research and development institution situated at Vasco, Goa, it was established in 25th May, 1998.

Dakshin Gangotri is the first research station in Antartica. Maitri is India's second research station, built in 1989.

82. (c) A. Kalpakkam Atomic Power Plant is situated in Tamil Nadu.
B. Narora Atomic Power Plant is situated in Uttar Pradesh.
C. Rawatbhata Atomic Power Plant is situated in Rajasthan.
D. Tarapur Atomic Power Plant is situated in Maharashtra.

83. (c) A. Namrup has a Fertilizer plant.
B. Vishakhapatnam has a steel plant.
C. Perambur has a integral Coach factory.
D. Renukoot has an Aluminium plant.

84. (a) A. Nanded town is situated on the banks of river Godavari.
B. Nellore town is situated on the banks of river Penneru.
C. Hosper town is situated on the banks of river Tungbhadra.
D. Hyderabad town is situated on the banks of river Munsi. Hyderabad is a unique Islamic sculptor city.

85. (d) Chief Producer States
Tea — Assam, West Bengal, Tamil Nadu
Jute — West Bengal, Bihar, Assam, Orissa
Rubber — Kerala, Tamil Nadu, Karnataka
Tobacco — Andhra Praesh, Gujarat, Karnataka, Tamil Nadu

86. (b) **Bauxite :** Palamu (Jharkhand) Kaira (Gujarat), Kanti, Jabalpur (M.P.) salem (Tamilnadu), Kolhapur (Maharashtra)

Copper : Singhbum, Hazaribagh (Jharkhand), Khetri Alwer, Bhilwara, Jhunhunu, Sirohi (Rajasthan)

Coal : Raniganj (West Bengal) Thariya, Bokaro, Giridiih (Jharkhand), Desgarh, Talcher (Orissa) Singreni (A.P.)

Iron Ore : Sanai, Mayurbhanj, Keonjhar (Orissa), Singhbhum, Hazaribagh, Palamau (Jharkhand).

87. (a) **Aluminium :** Alwaye (Kerala), Asansol (West Bengal), Renukoot (U.P.), Belur (Karnataka), Hiradud (Orissa).

Petrochemical : Indian Refineries Ltd (Barauni) Bihar Noohamati (Assam), Koyali oil Refinery, Koyali (Gujrat), Chochin oil Refinery Kochi (Kerala).

Cotton Textiles : Ahmedabad (Gujrat) Bangalore, Mumbai, Kolkata, Coimbtore (Tamilnadu), Kanpur (UP), Ludhiana and Amritsar (Punjab), Indore (MP).

Heavy Electricals : Bharat Heavy Electricals Ltd Ranipur Hardwar (Uttrakhand)

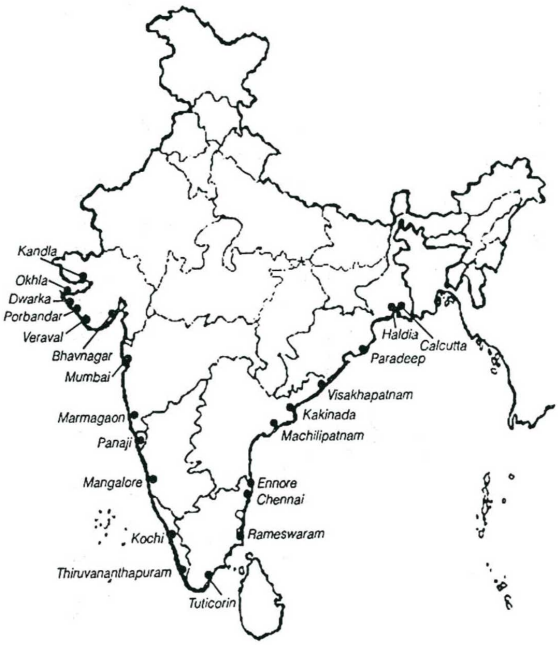
Heavy Electricals India Ltd (Bhopal)

88. (c)

N H No.	Cities connected
NH 1	Delhi and Amritsar
NH 2	Delhi and Kolkata
NH 3	Agra and Mumbai
NH 4	Thane and Chennai
NH 5	Behragoda and Chennai
NH 6	Dhulia and Kolkata
NH 7	Varanasi and Kanyakumari
NH 8	Delhi and Mumbai
NH 9	Pune and Vijaywada
NH 10	Delhi and Fazilka

89. (d) Gandhi Sagar Reservoir on Chambal river, jointly executed by Madhya Pradesh and Rajasthan.

90. (b) Kandla Port is not situated at the head of Gulf of Khambat. It is clear from the following map.



91. (c) Mangrove, Scrub, teak and coniferous are the various types of vegetations found in Karnataka, Rajasthan, Madhya Pradesh and Arunachal Pradesh respectively.

92. (a) India has 6 national water ways–

First one is Allahabad to Haldia in the river Ganga (1620 km). Second is Sadiya to Dhubri in the river Brahamputra (891 km). Third is Kollam to Kottapuram in the river west coast and canal (205 km). Fourth is Kakinada to Puducherry in the river Godavari (1095 km). Fifth is Talcher to Dhamra in the river Brahmani (623 km) and sixth one is Lakhipur to Bhanga in the river Barak (121km).

93. (a) Pune is on the leeward side of the western ghats, it means that it lies on a rain shadow area. But Mumbai lies on the windward side and receives heavy rainfall.

94. (a) Monsoon may be considered as large scale sea breejes, because of seasonal heating. The south west monsoon brings rain towards the end of summer. It arrives in two branches - The way of Bengal branch and the Arabian sea branch.

95. (c) The Northern Plains of India are expanded mainly in the state of Punjab, Haryana, Rajasthan, UP and Eastern Bihar. Here the total road length is more than total surface roads.

96. (b) Bauxite - Orissa
Mica - Andhra Pradesh
Copper - Madhya Pradesh
Zinc - Rajasthan

97. (b) Kandla-tidal port, Kochi-located at mouth of lagoon, Vishakhapatnam-deepest land-locked protected port, Kolkata-inland riverine port.

98. (b) Ranigang-Bokaro-Bishrampur-Adilabad.

99. (d) Zoji La-Jammu-Kashmir, Lipulekh-Uttaranchal, Shipki La-Himachal Pradesh, Nathu La-Sikkim.

100. (b) K2-Jammu and Kashmir, Nanda Devi-Uttarakhand, Tara Pahar-Himachal Pradesh, Kanchenjunga-Sikkim.

101. (a) Indian Standard Time is based on $82\frac{1}{2}$ °E longitude which passes through Allahabad. Since the east-west extent of India is vast so a time difference of two hours of found in the local time. Local time of Lucknow and Chennai are almost same because they lie along the same longitude.