S.S. UPSC CLASSES MATHURA

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Batch 2
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Q 1. Consider the following pairs

1. Mercury : Jovian planet
2. Venus : Duration of day longer than that of year
3. Saturn : A planet having density less than that of water

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

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

Q 2. Consider the following statements:

1. Uranus has retrograde rotation and has sunrise in the west and not in the east as we have on the earth.
2. Neptune has the largest diurnal range of temperature.

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

Q 3. Consider the following statements:

1. Venus is named after the Roman Goddess of beauty.
2. Mars is named after the Roman God of war.
3. Neptune is known as lopsided planet.

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

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

Q 4. Consider the following pairs

Planet	Satellite
1. Mars	Titan
2. Uranus	Titania
3. Neptune	Triton

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

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

Q 5. Which of the following pairs is/are correctly matched?

Planet	Chief characteristic feature
1. Saturn	King of Planets
2. Jupiter	Planet with Great Red spot in its atmosphere
3. Mercury	Slowest rotating planet

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

Q 6. Pluto was demoted from the status of a planet to that of dwarf planet in 2006 because it:

(i) does not have sufficient mass.
(ii) has not cleared the neighbour around its orbit.

(a) Statement I is correct.
(b) Statement II is correct.
(c) Both statements I and II are correct.
(d) Neither statement I nor II is correct.

Q 7. Consider the following statements.

1. Astronomical unit is the average distance between the earth and the sun.
2. Neptune is over 30 astronomical units away from the sun.

Which of the following statements is/are correct?

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

Q 8. When viewed from the space.

1. Earth looks as blue sphere.
2. Mars looks as red planet.
3. Neptune has rings.

Which of the above statements is/are correct?

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

Q 9. Consider the following statements.

1. A galaxy is a huge mass of stars, nebulae and interstellar material.
2. The sun situated at the centre of the Milky Way and all the planets revolve around the sun.

Which of the above mentioned statements is/are correct?

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

Q 10. Consider the following pairs

Satellite	Name of the discoverer
1. Europa	Galileo
2. Titan	Christaan Huygens
3. Titania	William Herschel

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

Q 11. Which of the following pairs is/are, correctly matched?

Spacecraft	**Purpose**
1. Cassini Huygens	Orbiting the Venus and transmitting data to the earth
2. Messenger	Mapping and investigating the planet Mercury
3. Voyager 1 & 2	Exploring the outer solar system

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

Q 12. What is the position of the asteroid belt?
1. Between the Sun and the Earth.
2. Between Mars and Jupiter.
3. It surrounds the orbital path of the Neptune
Which statement(s) about the position of the asteroid belt is/are correct?

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

Q 13. A meteor is
(a) A rapidly moving star
(b) A piece of matter which has entered the earth's atmosphere from outer space
(c) Part of a constellation
(d) A comet without tail

Q 14. Which of the above statements is correct?
With reference to comets, consider the following statements?
1. They revolve around the sun along a circular orbit.
2. The tail of the comet always points towards the sun during its revolution due to sun's gravitational force.
3. Halley's comet completes one revolution around the sun in 76 years.
4. The next appearance of the Halley's comet near the earth will be in the year 2061.
Which of the above statement (s) is/are correct?

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

Q 15. 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 these statements is/are correct?

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

Q 16. A black hole is a body in space which does not allow any radiation to come out. This property is due to its
(a) very small size
(b) very large size
(c) very high density
(d) very low density Which of the above statements is correct?

Q 17. 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 the 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.

Q 18. Which two places in India are located almost at the tropic of cancer and have sun's vertical rays only once in a year?
(a) Delhi and Allahabad
(b) Ranchi and Raipur
(c) Gwalior and Bhopal
(d) Bhopal and Ranchi

Q 19. If the earth's axis had not been inclined.
1. Seasons would not have occurred.
2. Length of days and nights would not have varied
3. Poles would not have day continuously for six months.
4. There would have been uniform distribution of temperature.
Which of the above statements are correct?
(a) 1 and 2 only (b) 1,2 and 3 only
(c) 1,2, 3 and 4 (d) 1,3 and 4 only

Q 20. The sun is never overhead at any time of the year in
1. Tropical Zone
2. North and South Temperate Zones
3. North and South Frigid Zones
Which of the above facts is/are correct?
(a) 1 only (b) 1 and 2 only
(c) 1,2 and 3 (d) 2 and 3 only

Q 21. Consider the following statements.
1. Norway is known as the "land of midnight sun".
2. Japan is known as the "land of rising sun"
3. There are large scale seasonal variations in duration of the day at Singapore.
Which of the above statements is/are correct?
(a) 1 only (b) 1 and 2 only
(c) 2 and 3 only (d) 1, 2 and 3

Q 22. Which country of the world never gets vertical rays of the sun?
(a) India (b) Australia
(c) Uruguay (d) Kenya

Q 23. Which statement is not true regarding the Big Bang Theory?
(a) Everything in the universe emerged from a point known as singularity.
(b) This happened about 13.7 billion years ago.
(c) Clouds formed clusters of galaxies.
(d) The universe is contracting.

Q 24. Which of the following is not the cause for seasonal variation in the length of the day?
(a) Rotation of the earth
(b) Revolution of the earth
(c) Inclination of the earth's axis on its orbital plane
(d) Elliptical shape of the earth's orbit

Q 25. Which statement is wrong with respect to parallels of latitudes?
(a) They start from equator and run parallel to it.
(b) All parallels are equal in length.
(c) A line joining places of equal latitude is known as parallel of latitude.
(d) All parallels are drawn as circles on the globe.

Q 26. Which of the following best describes longitude?
(a) Are distance towards east or west of the Prime Meridian
(b) The angular distance east or west of the Greenwich Meridian.
(c) Position of a place with reference to Greenwich Meridian.
(d) Imaginary line joining North Pole with South Pole.

Q 27. Match the following
A. Antarctic Circle 1. 23½° north
B. Tropic of Cancer 2. 23½° south
C. Tropic of Capricorn 3. 66½° north
D. Arctic Circle 4. 66½° south
(a) A-1 B-2 C-3 D-4 (b) A-4 B-1 C-2 D-3
(c) A-4 B-3 C-2 D-1 (d) A-3 B-2 C-1 D-4

Q 28. Which one of the following statements is correct?
(a) Great circle represents the longest distance on the surface of the earth.
(b) All parallels are great circles.
(c) It is possible to draw infinite number of great circles on the sphere.
(d) Great circles are not useful for the navigators.

Q 29. If the stars are seem to rise perpendicular to the horizon by an observer, he is located on the
(a) Equator (b) Tropic of Cancer
(c) Arctic Circle (d) North Pole

Q 30. If it is 12.00 noon at Greenwich, the local time at different longitudes would be as follows.

Longitude	**Local Time**
1. 82½°E	5.30PM.
2. 15°E	2.00PM.
3. 90°W	6.00AM.
4. 30°W	10.00AM.

Which of the above pairs is/are correctly matched?

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

Q 31. When it is noon at IST meridian, people at another place of the earth are taking 6 O'clock morning tea. The longitude of this place is
(a) 17.30°E (b) 7.30°W
(c) 172.30°E (d) 90°W

Q 32. If the earth's direction of rotation is reversed, what will be the. IST when it is noon at the International Date Line?
(a) 06.30 hrs (b) 05.30 hrs
(c) 18.30.hrs (d) 17.30 hrs

Q 33. The standard time of the following countries is ahead or behind Greenwich Mean Time (GMT) depending on whether they are East or West of the longitude passing through Greenwich

1. Cuba 2. Greece 3. Iraq
4. Costa Rica 5. Japan

Which one of the sequential orders gives the correct arrangement of the countries according to their standard time from ahead to behind GMT?
(a) 5, 3, 2, 1, 4 (b) 2, 4, 1, 3, 5
(c) 4, 1, 3, 2, 5 (d) 3, 5, 4, 1, 2

Q 34. Consider the following statements
1. The position when the earth is nearest to Sun is known as aphelion
2. The position when the earth is farthest from the sun is known as perihelion
3. Solstice is the time when the sun is at its greatest distance from the equator and the Sun's says are vertical at one of the tropics
Which of the above statements is/are correct?
(a) 1 and 2 (b) 2 only
(c) 3 only (d) 1, 2 and 3

Q 35. Which statement is not completely true about the axis of the earth?
(a) It is an imaginary line passing through the centre of the earth
(b) It is an imaginary line joining north and south poles
(c) It is inclined at an angle of 66½° to the plane of the elliptic.
(d) It is inclined at an angle of 23½°
from the line perpendicular to the plane of elliptic.

Q 36. Which one of the following statements is not true about the speed of rotation of the earth around its axis?
(a) It is maximum at the equator.
(b) It is maximum at the poles.
(c) It decreases away from the equator.
(d) At 60° latitudes, it is half of the speed at the equator.

Q 37. Match the following:

A. Summer Solstice	1. March 21
B. Winter Solstice	2. September 23
C. Vernal Equinox	3. December 22
D. Autumnal Equinox	4. June 22

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

Q 38. What is not caused by revolution of the earth around the sun?
(a) Change of seasons.
(b) Difference in local time at different longitudes.
(c) Variation in length of day
(d) Difference in altitude of the sun at different places in different seasons.

Q 39. What is true about Vernal and Autumnal Equinoxes?
(a) Vertical sun at the equator.
(b) Vertical sun at Tropic of Cancer or Tropic of Capricorn.
(c) Vertical sun at Arctic Circle or Antarctic Circle.
(d) Vertical sun at North Pole or South Pole.

Q 40. Which is not the exact cause of change of seasons?
(a) Revolution of the earth around the sun.
(b) Rotation of the earth around its axis.
(c) Inclination of the earth's axis on the plane of earth's orbit.
(d) Varying distance of the earth from the sun.