

50 Complete MCQ Questions for Solar System & Universe

(Sainik School Entrance - 9th Class)

Instructions: Choose the correct option for each question.

1. **Which planet is known as the "Morning Star" or "Evening Star"?**
 - a) Mercury
 - b) Venus
 - c) Mars
 - d) Jupiter
2. **The Great Red Spot is a massive storm on:**
 - a) Saturn
 - b) Jupiter
 - c) Neptune
 - d) Mars
3. **Which is the largest planet in our solar system?**
 - a) Earth
 - b) Saturn
 - c) Jupiter
 - d) Neptune
4. **The asteroid belt lies between the orbits of:**
 - a) Earth and Mars
 - b) Mars and Jupiter
 - c) Jupiter and Saturn
 - d) Saturn and Uranus
5. **Which planet has the most prominent and visible ring system?**
 - a) Jupiter
 - b) Uranus
 - c) Saturn
 - d) Neptune
6. **Which of these is NOT a Jovian planet (gas giant)?**
 - a) Jupiter
 - b) Saturn
 - c) Uranus
 - d) Mars
7. **Phobos and Deimos are moons of:**
 - a) Jupiter
 - b) Saturn
 - c) Mars
 - d) Venus
8. **The Sun is primarily composed of:**
 - a) Hydrogen and Helium
 - b) Oxygen and Nitrogen
 - c) Carbon Dioxide and Methane
 - d) Silicon and Iron
9. **Which planet rotates on its axis from east to west (retrograde rotation)?**
 - a) Uranus
 - b) Venus
 - c) Mars
 - d) Mercury
10. **The time taken by Earth to complete one revolution around the Sun is:**
 - a) 24 hours
 - b) 365.25 days
 - c) 29.5 days
 - d) 12 hours

11. **The outermost layer of the Sun's atmosphere visible during a total solar eclipse is:**
 - a) Photosphere
 - b) Chromosphere
 - c) Corona
 - d) Core
12. **Which planet has the highest surface temperature due to extreme greenhouse effect?**
 - a) Mercury
 - b) Venus
 - c) Mars
 - d) Jupiter
13. **The dwarf planet located in the asteroid belt is:**
 - a) Pluto
 - b) Eris
 - c) Ceres
 - d) Makemake
14. **Which spacecraft provided close-up images of Pluto in 2015?**
 - a) Voyager 2
 - b) Cassini
 - c) New Horizons
 - d) Juno
15. **Olympus Mons, the largest volcano in the solar system, is found on:**
 - a) Venus
 - b) Earth
 - c) Mars
 - d) Io (moon of Jupiter)
16. **The Moon's surface is covered with craters primarily because:**
 - a) It has volcanic activity
 - b) It has no atmosphere to burn up meteoroids
 - c) It is very cold
 - d) It has strong winds
17. **Which phenomenon occurs when the Moon passes between the Sun and Earth?**
 - a) Lunar Eclipse
 - b) Solar Eclipse
 - c) Aurora
 - d) Meteor Shower
18. **The planet known for having 27 known moons and rotating on its side is:**
 - a) Saturn
 - b) Uranus
 - c) Neptune
 - d) Venus
19. **India's first lunar mission was named:**
 - a) Mangalyaan
 - b) Chandrayaan-1
 - c) Aryabhata
 - d) Aditya-L1
20. **A light-year is a unit of:**
 - a) Time
 - b) Speed
 - c) Distance
 - d) Brightness
21. **Which planet is called the "Red Planet"?**
 - a) Venus
 - b) Mars
 - c) Jupiter
 - d) Saturn

22. **Triton, a moon with geysers and a retrograde orbit, belongs to:**
- a) Uranus
 - b) Neptune
 - c) Saturn
 - d) Jupiter
23. **The Milky Way galaxy is classified as a:**
- a) Spiral Galaxy
 - b) Elliptical Galaxy
 - c) Irregular Galaxy
 - d) Barred Spiral Galaxy
24. **Which planet has the shortest day (fastest rotation)?**
- a) Mercury
 - b) Venus
 - c) Jupiter
 - d) Saturn
25. **The Kuiper Belt is a region beyond Neptune containing:**
- a) Asteroids
 - b) Comets and dwarf planets
 - c) Gas giants
 - d) Only ice
26. **The Pole Star (Polaris) is located almost directly above Earth's:**
- a) Equator
 - b) South Pole
 - c) North Pole
 - d) Tropic of Cancer
27. **Which of these is NOT a natural satellite?**
- a) Titan
 - b) Ganymede
 - c) International Space Station
 - d) Europa
28. **The process by which the Sun produces energy is:**
- a) Nuclear Fission
 - b) Nuclear Fusion
 - c) Combustion
 - d) Radioactive Decay
29. **Which planet has the Great Dark Spot, similar to Jupiter's Great Red Spot?**
- a) Saturn
 - b) Uranus
 - c) Neptune
 - d) Pluto
30. **A meteor that survives its journey through the atmosphere and hits the ground is called:**
- a) Meteoroid
 - b) Meteor
 - c) Meteorite
 - d) Asteroid
31. **Which is the hottest planet in our solar system?**
- a) Mercury
 - b) Venus
 - c) Mars
 - d) Jupiter
32. **The largest moon in our solar system is:**
- a) Titan
 - b) Ganymede
 - c) Moon (Earth's)
 - d) Callisto

33. **The tilt of Earth's axis is responsible for:**
- a) Day and night
 - b) Tides
 - c) Seasons
 - d) Eclipses
34. **Which spacecraft studied Saturn and its rings extensively?**
- a) Voyager 1
 - b) Galileo
 - c) Cassini-Huygens
 - d) Juno
35. **The "Goldilocks Zone" or Habitable Zone refers to:**
- a) Distance from a star where water can exist as liquid
 - b) Area with most asteroids
 - c) Region where planets have rings
 - d) Zone with maximum solar energy
36. **Which planet has supersonic winds and diamond rain?**
- a) Jupiter
 - b) Saturn
 - c) Uranus
 - d) Neptune
37. **The Oort Cloud is believed to be:**
- a) A belt of asteroids
 - b) Source of short-period comets
 - c) Spherical cloud of icy objects beyond Pluto
 - d) Region between Mars and Jupiter
38. **Which planet has the most extreme temperature variations?**
- a) Mercury
 - b) Venus
 - c) Mars
 - d) Earth
39. **India's first interplanetary mission to Mars was:**
- a) Chandrayaan-1
 - b) Mangalyaan (Mars Orbiter Mission)
 - c) Aditya-L1
 - d) Astrosat
40. **The apparent movement of the Sun from east to west is due to:**
- a) Earth's revolution
 - b) Earth's rotation
 - c) Sun's rotation
 - d) Tilt of Earth's axis
41. **Which is the only moon in the solar system with a substantial atmosphere?**
- a) Europa
 - b) Titan
 - c) Ganymede
 - d) Io
42. **Uranus appears blue-green because of:**
- a) Water oceans
 - b) Methane in its atmosphere
 - c) Sulfur clouds
 - d) Iron oxide
43. **The Andromeda Galaxy is:**
- a) Closest to Milky Way
 - b) Inside our solar system
 - c) A type of star
 - d) A planet

44. **Which planet has the longest year (orbital period)?**
a) Jupiter
b) Saturn
c) Uranus
d) Neptune
45. **Sunspots appear dark because they are:**
a) Holes in the Sun
b) Cooler than surrounding areas
c) Made of different material
d) Covered by clouds
46. **Which of these is a dwarf planet?**
a) Europa
b) Titan
c) Pluto
d) Deimos
47. **The "Summer Solstice" in the Northern Hemisphere occurs when:**
a) Sun is over the Equator
b) Sun is over the Tropic of Cancer
c) Sun is over the Tropic of Capricorn
d) Day and night are equal
48. **Which mission discovered water ice on the Moon?**
a) Apollo 11
b) Chandrayaan-1
c) Viking 1
d) Voyager 2
49. **The theory that suggests the universe began from a single point is:**
a) Steady State Theory
b) Big Bang Theory
c) Pulsating Theory
d) Cosmic Inflation Theory
50. **Which planet has the most elliptical orbit?**
a) Mercury
b) Venus
c) Earth
d) Pluto (dwarf planet)

Answer Key:

1. b) Venus
2. b) Jupiter
3. c) Jupiter
4. b) Mars and Jupiter
5. c) Saturn
6. d) Mars
7. c) Mars
8. a) Hydrogen and Helium
9. b) Venus
10. b) 365.25 days
11. c) Corona
12. b) Venus
13. c) Ceres
14. c) New Horizons
15. c) Mars
16. b) It has no atmosphere to burn up meteoroids
17. b) Solar Eclipse
18. b) Uranus

19. b) Chandrayaan-1
20. c) Distance
21. b) Mars
22. b) Neptune
23. d) Barred Spiral Galaxy
24. c) Jupiter
25. b) Comets and dwarf planets
26. c) North Pole
27. c) International Space Station
28. b) Nuclear Fusion
29. c) Neptune
30. c) Meteorite
31. b) Venus
32. b) Ganymede
33. c) Seasons
34. c) Cassini-Huygens
35. a) Distance from a star where water can exist as liquid
36. d) Neptune
37. c) Spherical cloud of icy objects beyond Pluto
38. a) Mercury
39. b) Mangalyaan (Mars Orbiter Mission)
40. b) Earth's rotation
41. b) Titan
42. b) Methane in its atmosphere
43. a) Closest to Milky Way
44. d) Neptune
45. b) Cooler than surrounding areas
46. c) Pluto
47. b) Sun is over the Tropic of Cancer
48. b) Chandrayaan-1
49. b) Big Bang Theory
50. d) Pluto (dwarf planet)