

2024 IV 13

0930

Seat No.

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Time : 2 Hours

ASTRONOMY

Subject Code

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Total No. of Questions : 34 (Printed Pages : 4)

Maximum Marks : 40

INSTRUCTIONS : (i) All questions are compulsory.

(ii) Figures to the right indicate full marks.

(iii) Drawing and labelling of diagram should be done in pencil only.

- **Choose the correct alternative from those given below each statement and rewrite :** 4

1. The most famous book of Bhaskara is considered as

- Siddhanta Shiromani
- Lilavati
- Surya Siddhanta
- Vedanga Jyotisha

2. The first celestial object studied by Galileo through a telescope was

- Moon
- Sun
- Mars
- Jupiter

3. A giant cloud of dust and gas in space is
- Star
 - Meteoroids
 - Satellite
 - Nebulae
4. A fine grained soil covering surface of the moon is
- Mare
 - Regolith
 - Rock
 - Crater

Name the following :

4

5. Brightest white object in the sky after moon.
6. The most accepted astronomical model of the origin of our universe.
7. The minor planets of the solar system that orbits the sun beyond our last planet.
8. The planet named after Greek God of the sky.

Give astronomical terms for the following :

2

9. When the solar disc is partly covered by the moon ?
10. Large groups of stars held together by gravity.

Answer the following questions in *one* word each :

4

11. Which sage wrote hymns in the Vedas regarding astronomical happenings ?
12. Through which process do stars produce their energy ?
13. On what principle Newtonian telescope is based upon ?
14. Which mission showed evidence of water in the polar regions of the moon ?

Answer the following questions in *one* sentence each :

5

15. An astronomy lover gazed the sky from southern Hemisphere. How many constellations will he be able to observe in the sky ?
16. Mention any *two* devices used to observe the sun.
17. State the cause for the absence of air on the moon.
18. What makes Venus the hottest planet ?
19. Write any *two* places where Jai Singh II constructed the astronomical observatories.

Give reason for the following :

5

20. It is observed that on planet Uranus there is 42 yrs of darkness and 42 yrs of sunlight.
21. The moon can be seen in the day sky in the most phases except for the new moon.
22. Stars twinkle more at the horizon.
23. A group of sky observers while observing night sky prefer to use a torch with red light over white light.
24. There is a possibility of future human habitation near the lunar poles.

Match the columns :

2

	Column 'A'	Column 'B'
25.	Nabha	(i) Cool season
26.	Shishir	(ii) Summer season
		(iii) Monsoon season
		(iv) Autumn season

Correlate the following :

2

27. (a) Sea of tranquillity : (b) Transquillitatis : : (c) Sea of clouds : (d) _____
28. (a) Luna 9 : (b) First landing on moon : : (c) ____ : (d) First man on moon
29. Draw a neat diagram of simplified refracting telescope and label : 2
- (a) Objective lens
- (b) Eye piece
30. Draw a neat diagram of Total lunar eclipse and label : 2
- (a) Sun
- (b) Moon
- (c) Earth.

Answer the following questions in 2-3 sentences each :

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31. Write a note on radio telescope.
32. How are terrestrial planets different from Gas Giant planets ? Explain giving *two* points each.
33. Why stars give out different colours ?
34. Explain any *two* properties of a star.