

PART A: MULTIPLE CHOICE (8 MARKS)

Choose the best response in each case and place your answer in the appropriate space on your answer sheet.

1. Which of the following planets can be seen with the unaided eye?
 - (a) Mars
 - (b) Uranus
 - ~~(c) Pluto~~
2. Earth's revolution causes:
 - (a) stars to rise in the east and set in the west.
 - (b) stars to rise in the west and set in the east.
 - (c) the seasons.
3. In a solar eclipse:
 - (a) the moon is between the Earth & the Sun.
 - (b) the Earth is between the moon & the Sun.
 - (c) the Earth blocks the Sun.
4. Which of the following statements is correct?
 - (a) The Chinese developed a 100 day calendar by observing the Sun and stars.
 - (b) The Maya built temples that were also observatories.
 - (c) Stonehenge was built as a giant sun-dial.
5. Which of the following is a constellation?
 - (a) the Big Dipper.
 - (b) the Milky Way.
 - (c) Halley's comet.
6. ~~Pointer stars:~~
 - ~~(a) can be used to locate planets in the night sky.~~
 - ~~(b) appear to be pointed.~~
 - ~~(c) can be used to locate constellations and other stars.~~
7. In ancient times, people were more aware of the night sky than most people are today because:
 - (a) the cities shut off all their lights at night.
 - (b) there were no TVs to occupy their evenings.
 - (c) now it is too expensive for most people.
8. Given a scale of 1 cm = 10 m and a line 0.8 cm in length, the actual length of the line would be:
 - (a) 0.80 m
 - (b) 8.0 m
 - (c) 80 m
9. ~~Triangulation requires a minimum of:~~
 - ~~(a) two angles and a baseline.~~
 - ~~(b) one angle and two baselines.~~
 - ~~(c) one angle and one baseline.~~
10. An astronomical unit (a.u.) is:
 - (a) how much light a star gives off in a year.
 - (b) the distance that light travels in one year.
 - (c) the average distance between the Earth and Sun.

PART B: MATCH (5 MARKS)

Match the definition from the 1st column to the best term in the 2nd column and place the matching letter in the appropriate space on your answer sheet.

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|-------------------------------------------------------------------|-----------------------------|
| 1. The Sun & all the objects that travel around it. | A) astronomy |
| 2. Large spherical piece of matter that revolves around a planet. | B) constellation |
| 3. Large collection of matter that emits huge amounts of energy. | C) moon |
| 4. Group of stars that forms shapes or patterns. | D) planet |
| 5. The spinning of an object around its axis. | E) revolution |
| | F) rotation |
| | G) solar system |
| | H) star |
| | I) triangulation |
| | J) universe |

PART A: MULTIPLE CHOICE (8 MARKS)

1	2	3	4	5	6	7	8	9	10
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PART B: MATCH (5 MARKS)

1	2	3	4	5
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PART C: SHORT ANSWER (19 MARKS)

Answer questions 1 to 4 in the space provided. Answer question 5 on the back of this sheet.

{10} 1. Complete the following chart comparing a planet and a star by placing the letter of the appropriate description in the space provided.

Feature	Planet	Star
Solar System Location		
Surface Temperature		
Light Coming From Object		
Reason We See		
Distance From Earth		

- A) cold
- B) far from Earth
- C) far beyond solar system
- D) gases under high pressure/temp.
- E) hot
- F) in solar system
- G) luminous (gives off light)
- H) moves as part of constellation
- I) near to Earth
- J) nonluminous (reflects light)
- K) rocks/gases
- L) steady light
- M) twinkles
- N) wanders through constellations

{4} 2. Complete the following chart. Be sure to round your final "au" and "ly" answers to the accuracy indicated. (Hint: 1 au = 1.5 x 10⁸ km and 1 ly = 9.46 x 10¹² km)

Standard Notation (km)	Proper Scientific Notation (km)	Astronomical Units (a.u.)	Light-Years (l.y.)
	3.5 x 10 ¹⁰	1 dec. pl.	3 dec. pl.
870 000 000 000		0 dec. pl.	2 dec. pl.
		15000	2 dec. pl.

{5} 3. What is light pollution? Explain (a) two problems associated with light pollution and (b) two solutions that could help reduce it. Be sure to use complete sentences!

{2} 4. Explain why it is impractical to construct a model of the solar system using the same scale for both planet diameters and planet distances. Be sure to use complete sentences!

{4} 5. A surveyor measures off a baseline of 100 m along the shore of a river. He then measures the angle from each end of the baseline to a rock on the opposite shore. The two angles that he measures from the baseline to the rock are 50° and 65°. Draw a scale diagram to determine the width of the river. Be sure to show your work!