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90192

NEW ZEALAND QUALIFICATIONS AUTHORITY
MANA TOHU MĀTAURANGA O AOTEAROA

National Certificate of Educational Achievement
TAUMATA MĀTAURANGA Ā-MOTU KUA TAEA

Level 1 Science, 2006

90192 Describe aspects of astronomy

Credits: Two
9.30 am Tuesday 28 November 2006

Check that the National Student Number (NSN) on your admission slip is the same as the number at the top of this page.

You should answer ALL the questions in this booklet.

If you need more space for any answer, use the page(s) provided at the back of this booklet and clearly number the question.

Check that this booklet has pages 2–8 in the correct order and that none of these pages is blank.

YOU MUST HAND THIS BOOKLET TO THE SUPERVISOR AT THE END OF THE EXAMINATION.

For Assessor's use only	**Achievement Criteria**	
Achievement	**Achievement with Merit**	**Achievement with Excellence**
Describe aspects of astronomy.	Explain aspects of astronomy.	Discuss aspects of astronomy.
Overall Level of Performance		

You are advised to spend 20 minutes answering the questions in this booklet.

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QUESTION ONE: THE SOLAR SYSTEM

(a) What name is given to the curved path that a planet takes around the Sun?

_____

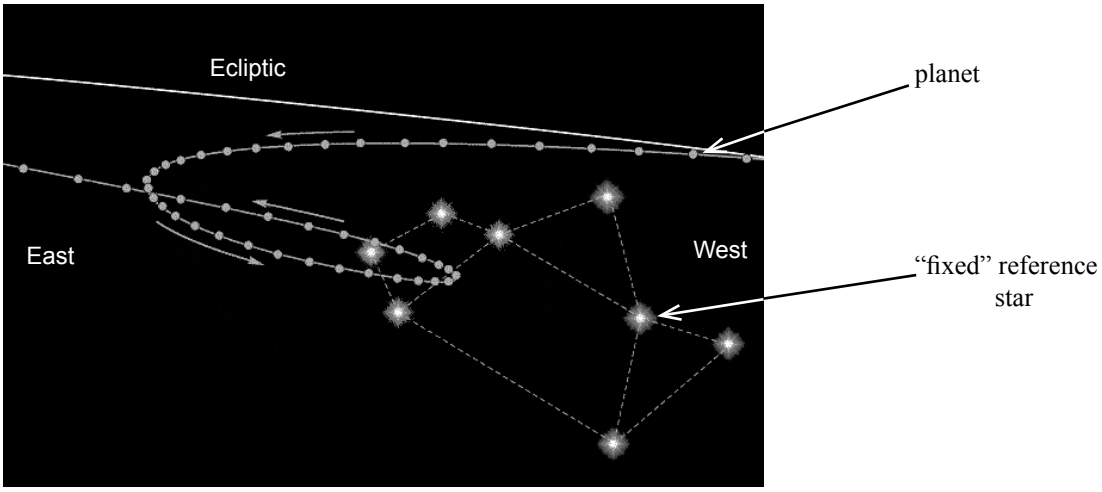
(b) Name the planet whose path around the Sun is **not** in the same plane as all the other planets.

_____

(c) Name the largest planet in our solar system.

_____

All planets travel around the Sun in the same direction. Sometimes, a planet viewed from Earth appears to have reversed its direction of motion, as shown in the diagram below.



(d) Name the term used to describe the motion of a planet as shown in the above diagram.

_____

(e) Explain why a planet when viewed from Earth appears to have reversed its direction of motion.

_____

_____

_____

_____

QUESTION TWO: MOONS

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(a) Explain what causes an eclipse of the Moon. A diagram should be included in the space provided below.

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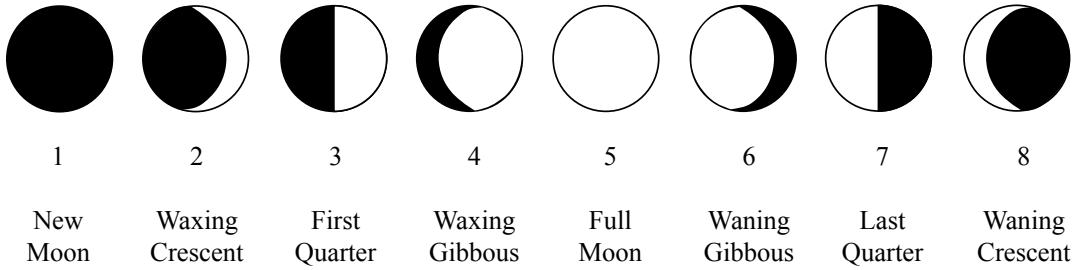
(b) The following diagram illustrates the phases of the Moon.



Discuss the cause of the Moon's phases.

(c) Explain why the same side of the Moon always faces the Earth.

(d) Name THREE planets, other than the Earth, that have moons.

(i) _____

(ii) _____

(iii) _____

An equinox is when day and night are of equal length. There are two equinoxes in a year. One equinox occurs in spring, and the other in autumn.

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(e) Use the position and movement of the Earth to discuss **how** and **why** the two equinoxes occur.

QUESTION THREE: SPACE EXPLORATION

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Scientists use a variety of methods to gather information about the solar system.

(a) Compare and contrast the type of information gathered by **space orbiters**, such as the Mars Reconnaissance Orbiter, and Earth-based **light telescopes**.

(b) State ONE **other** method used to gather information about the solar system.

Extra paper for continuation of answers if required.
Clearly number the question.

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Question number	

Extra paper for continuation of answers if required.
Clearly number the question.

Assessor's use only

Question number	