



RS.TC8 The Influence of Science on Belief in the Existence of God

AQA 8062 · Calculators not allowed · about 50 minutes

Total Marks

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Name: _____ Date: ____ / ____ / ____

Answer ALL questions. Show all your working.

- 1** Which one of the following best describes the Big Bang theory as used in discussions about the origin of the universe?

- ☐ A. The idea that the universe has always existed in the same state
- ☐ B. The hypothesis that the universe began from a very hot, dense state and expanded
- ☐ C. The belief that the universe is an illusion created by human minds
- ☐ D. The view that stars are made from divine breath

(Total for Question 1 is 1 mark)

- 2** Give two key features of Charles Darwin's theory of evolution by natural selection, as it is used in debates about human origins.

(Total for Question 2 is 2 marks)

- 3** Explain two ways Darwin's theory of evolution can challenge the belief that humans were specially created exactly as described in a literal reading of Genesis, in the context of religious responses to scientific accounts of origins.

(Total for Question 3 is 4 marks)

- 4 Explain two contrasting religious beliefs about the relationship between science and religion when discussing origins. Refer to a sacred text or another source of religious belief in your answer.

(Total for Question 4 is 5 marks)

- 5 Evaluate the view that scientific explanations of the origin of the universe and of human life disprove the existence of God. In your answer you should give reasoned arguments to support this view, give reasoned arguments to support a different point of view, refer to religious arguments, and reach a justified conclusion. Include spelling, punctuation and grammar assessment.

Evaluate the view that scientific explanations of the origin of the universe and of human life disprove the existence of God. In your answer you should give reasoned arguments to support this view, give reasoned arguments to support a different point of view, refer to religious arguments, and reach a justified conclusion.

(Total for Question 5 is 15 marks)

6 Define the term 'evolution' as it is used in discussions about human origins and science.

(Total for Question 6 is 1 mark)

7 Give three types of scientific evidence that support the theory of evolution when explaining the development of life on Earth.

(Total for Question 7 is 3 marks)

8 State two different ways Christians interpret the Genesis creation accounts in relation to modern science.

(Total for Question 8 is 2 marks)

9 Explain two reasons why some religious believers accept evolution as compatible with belief in God, in the context of religious responses to scientific theories.

(Total for Question 9 is 4 marks)

10 Give three reasons why some people claim scientific explanations make belief in God unnecessary, in debates about origins and meaning.

(Total for Question 10 is 3 marks)

- 11** State two features of the scientific method that are relevant when scientists investigate the origins of the universe.

(Total for Question 11 is 2 marks)

- 12** Explain two limitations of science when it comes to answering questions about purpose and ultimate meaning, in discussions about whether science can disprove God.

(Total for Question 12 is 4 marks)

Mark scheme · RS.TC8 The Influence of Science on Belief in the Existence of God

Question 1

- **B1** selecting B as the correct description of the Big Bang theory
- **Answer: B**

Question 2

- **B1** inherited variation exists between individuals in a species, oe
- **B1** organisms with advantageous variations are more likely to survive and reproduce, passing those traits on, oe
- **Answer: Examples: inherited variation between individuals; beneficial traits increase chances of survival and are passed on.**

Question 3

- **B1** point 1: evolution suggests humans share common ancestry with other animals, which conflicts with a literal view that humans were created separately and fully formed, oe
- **B1** development: this challenges the idea of a unique, instantaneous creation event for humans as described in a literal Genesis account, oe
- **B1** point 2: natural selection explains complex features without invoking direct divine intervention for each trait, oe
- **B1** development: this can reduce the need, for some people, to appeal to a Creator to account for biological complexity, oe
- **Answer: E.g. common ancestry conflicts with separate special creation; natural selection provides non-supernatural explanations for complexity, reducing need for direct divine acts.**

Question 4

- **B1** belief 1: some religious believers see science and religion as compatible, for example believing God was the first cause behind the Big Bang or that evolution is the method God used to create life, oe
- **B1** development: this view may refer to Genesis 1:1, 'In the beginning God created the heavens and the earth', as compatible with a God who starts the process without contradicting scientific detail, oe
- **B1** belief 2: other believers see science and religion as in tension, arguing that scientific accounts remove the need for God to explain origins, oe
- **B1** development: this view may refer to readings that take Genesis as a literal, historical account and therefore see scientific explanations as conflicting with scripture, oe
- **B1** a correct, accurate reference to a sacred text or other source of religious belief is made, oe
- **Answer: Contrast: compatibility view, e.g. God as first cause or evolution as God's method, linked to Genesis 1:1; tension view, e.g. literal Genesis readers see science as conflicting with scripture.**

Question 5

- **Level 4** (10-12): A well-developed, balanced evaluation that gives clear arguments supporting and opposing the view, includes relevant religious perspectives and arguments, and reaches a supported and justified conclusion.
- **Level 3** (7-9): A balanced answer with several clear points on both sides, reference to religious views, and a conclusion, though development or balance may be limited.
- **Level 2** (4-6): Some relevant points are made for and against the view, but argumentation is limited or one side is stronger; religious perspectives may be mentioned briefly.
- **Level 1** (1-3): Simple, limited statements for or against the view with little development and no clear conclusion.
- **Level 0** (0): No response worthy of credit.
- **Indicative content:**
 - Arguments that scientific explanations disprove God: the Big Bang and evolution provide natural explanations for origins, reducing the explanatory role for God; natural selection accounts for complexity without invoking a designer; since scientific explanations are testable and evidence based, they replace supernatural explanations for many people.
 - Non-religious rebuttals to the claim they disprove God: science may explain processes without addressing why there is something rather than nothing, leaving room for a transcendent cause; methodological naturalism used by science does not logically rule out supernatural reality, it only restricts scientific method.
 - Religious arguments supporting compatibility: many believers accept God as the first cause behind the Big Bang, or see evolution as the means God used to create life; Genesis 1:1 can be read as asserting God brought the universe into being without giving scientific detail.
 - Religious arguments claiming conflict: literal readings of sacred texts may be seen to contradict scientific accounts, leading some believers to reject parts of science or reinterpret scripture, and some religious traditions hold that science undermines core theological claims about human uniqueness.
 - Considerations about limits of science: science deals with empirical processes and cannot directly test metaphysical claims about purpose or meaning, so disproof of God is not a purely scientific conclusion but a philosophical or metaphysical one.
 - Possible concluding positions: the student might conclude that science challenges certain religious claims but does not logically disprove God, or conclude that for some people scientific evidence makes belief in God unlikely; a justified conclusion should weigh the strengths and limits of both scientific and religious reasoning.

Question 6

- **B1** a concise definition such as: change in species over generations by genetic variation and natural selection, oe
- **Answer: Change in species over generations due to inherited variation and natural selection.**

Question 7

- **B1** fossil record showing transitional forms, oe
- **B1** comparative anatomy showing homologous structures, oe
- **B1** genetic evidence, such as DNA similarities between species, oe
- **Answer: Any three: fossil record; homologous anatomy; DNA/genetic similarities.**

Question 8

- **B1** literal interpretation: Genesis is a factual, historical account of creation, oe
- **B1** theistic evolution/figurative interpretation: Genesis is symbolic or theological and compatible with evolution, oe
- **Answer: Literal creation view; theistic evolution or symbolic interpretation compatible with science.**

Question 9

- **B1** point 1: accepting evolution allows believers to combine scientific evidence with faith by seeing evolution as the means God used to create life, oe
- **B1** development: this preserves theological claims about God as creator while acknowledging scientific mechanisms, oe
- **B1** point 2: many theologians argue that scripture is not intended as a scientific textbook, so accepting evolution just requires interpreting Genesis metaphorically, oe
- **B1** development: this approach emphasises the theological meaning of creation texts rather than literal chronological detail, oe
- **Answer: E.g. evolution as God's method, preserving belief in God while accepting science; non-literal reading of Genesis emphasises theological meaning. not scientific detail.**

Question 10

- **B1** science provides natural, testable explanations for phenomena previously attributed to gods, oe
- **B1** advances in cosmology and biology reduce the gaps where God was used as an explanation, oe
- **B1** some argue that supernatural explanations are not needed when regular, natural processes suffice, oe
- **Answer: Any three: science provides natural explanations; reduces explanatory gaps; supernatural explanations become unnecessary when natural processes account for phenomena.**

Question 11

- **B1** use of empirical evidence such as observations and measurements, oe
- **B1** testing and revising theories in light of new data, oe
- **Answer: Use of empirical evidence; testing and revising theories based on new data.**

Question 12

- **B1** point 1: science is methodologically restricted to empirical, testable claims and so cannot directly test metaphysical claims about purpose or ultimate meaning, oe
- **B1** development: because questions about meaning and purpose are philosophical or theological, they lie outside empirical verification, oe
- **B1** point 2: scientific models often rely on assumptions and interpretive frameworks, so they do not constitute absolute proof against non-empirical claims, oe
- **B1** development: this means that arguments claiming science disproves God may depend on philosophical interpretations of scientific findings rather than on science alone, oe
- **Answer: E.g. science cannot test metaphysical questions about purpose; scientific conclusions rely on interpretive frameworks and so do not amount to absolute disproof of non-empirical claims.**