Practice Question Set For GCSE
Subject : Physics
Paper-2 Topic: GCSE Triple Science_Space Physics (HDQ)

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Name of the Student:_____
Max. Marks : 18 Marks **Time : 18 Minutes**

Mark Schemes

Q1.

(a) converted into helium

accept helium created
accept converted into heavier elements
accept used up in nuclear fusion / to produce energy
*do **not** accept any reference to burning*

1

(b) turns / expands into a red giant

contradictions negate mark

1

contracts **and** explodes **or** becomes a supernova

1

may form a (dense) neutron star **or** (if enough mass shrinks to) form a black hole

accept forms a neutron star and (then) a black hole

1

Quality of written communication

correct points must be in sequence

1

(c) (i) supernova **or** remains of an earlier star

ignore super nebula

1

(ii) younger **or** not formed at the time of the Big Bang

1

[7]

Q2.

(i) an enormous explosion causing matter to spread from one point

1

(ii) it is increasing **or** expanding

1

[2]

Q3.

(i) from a (giant) cloud of gas or hydrogen

1

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condensed **or** pulled into a smaller volume by gravity

1

(ii) any three from:

- fusion decreases or stops
- collapses rapidly causing the (core) temperature to rise
- (inward) gravitational forces no longer balance (outward) pressure
- expands
- and becomes a red giant
- it cools
- then becomes a white dwarf
- helium may fuse

*if the sequence is incorrect deduct [1] therefore maximum **2** marks*

3

[5]

Q4.

(i) an innumerable collection of <u>galaxies</u>

accept any word meaning a large number for innumerable
accept all the galaxies
*do **not** accept everything*

1

(ii) all matter concentrated at a (single) point

accept all matter part of a single 'superatom'

1

single (massive) explosion (sending matter outwards)

1

(iii) increasing or expanding

1

[4]

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