Practice Question Set For GCSE
Subject : Physics
Paper-1 Topic: Atomic Structure (Standard Demand)

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Name of the Student:_____
Max. Marks : 19 Marks **Time : 19 Minutes**

Mark Schemes

Q1.

(a) (i) 200 to 50
accept either order
1

(ii) 5.3
accept values between 5.2 and 5.4 inclusive
1

(iii) 5.3
accept values between 5.2 and 5.4 inclusive
or
their (a)(ii)
1

(b) (i) Make the conveyor belt move more slowly
1

(ii) lead
1

(c) Exposure increased the content of some types of vitamin.
1

[6]

Q2.

(a) **L**

J

K
all 3 in correct order
*allow **1** mark for 1 correct*
2

(b) number of electrons = number of protons
accept amount for number
1

(c) neutrons
this answer only
1

(d) loses / gains electron(s)

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1

[5]

Q3.

(a) (i) **K** and **L**

both answers required either order

1

(ii) (1) same number of protons

accept same number of electrons

accept same atomic number

1

(2) different numbers of neutrons

1

(b) (i) 90

1

(ii) 140

1

(c) alpha (particle)

reason may score even if beta or gamma is chosen

1

mass number goes down by 4
or
number of protons and neutrons goes down by 4
or
number of neutrons goes down by 2

*candidates that answer correctly in terms of why gamma **and** beta decay are not possible gain full credit*

1

atomic / proton number goes down by 2
or
number of protons goes down by 2

*accept an alpha particle consists of 2 neutrons and 2 protons for **1** mark*

*accept alpha equals $^{4}_{2}He$ or $^{4}_{2}\alpha$ for **1** mark*

an alpha particle is a helium nucleus is insufficient for this mark

1

[8]

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