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

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Name of the Student:_____
Max. Marks : 17 Marks **Time : 17 Minutes**

Mark Schemes

Q1.

(a) *(i)* *B*

for one mark

1

(ii) *has 4 electrons / protons others only 3; B has a different no. of electrons / protons - not A and C have same no. of protons / electrons*

for one mark

1

(b) *(i)* *A and C*

for one mark

1

(ii) *same no. of protons / electrons different no. of neutrons*
or
nuclei have the same charge but different mass

for 1 mark each

2

(c) *(i)* 

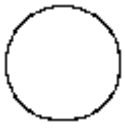
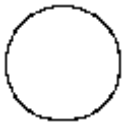
(ii) 

(iii) 

for 1 mark each

3

(d) *2p.2n* 

allow  *but not* 

(i.e. no mark if electrons shown)

for one mark

1

[9]

Q2.

(a) *radium*

accept Ra

1

(b) *different numbers of protons*

accept one has 91 protons, one has 92
or *Pa has 91 protons, U has 92*
do ***not*** *credit they have different atomic numbers*
reject different numbers of protons and neutrons

1

(c) *alpha*

1

(d) *neutron <u>changes</u> into proton*

accept electron lost / beta radiation
accept singular or plural answers

1

[4]

Q3.

(a) *(i)* *two protons*

1

2 neutrons

if neither point gained allow 1 mark for helium nucleus

1

(ii) *electron*

1

(b) *neutron splits (to form proton and electron)*

1

[4]