

Name of the Student: \_\_\_\_\_

Max. Marks : 10 Marks

Time : 10 Minutes

Mark Schemes

**Q1.**

- (a) 1.  
-1

2

*for 1 mark each*

- (b) (i) 19p,  
20n,  
19e

*all correct for 2 marks**2 correct for 1 mark*

2

- (ii) K40 has an extra neutron/different number of neutrons/  
it has more neutrons/21 neutrons

*for 1 mark**NOT fewer neutrons*

1

- (iii) radioactive/unstable nucleus/ nucleus disintegrates/  
emits radiation/it has too many neutrons

*for 1 mark*

1

- (iv) calcium/Ca

*for 1 mark*

1

- (v) 1 (e) in outer shell/same number of electrons/outer electron  
same distance from the nucleus

*for 1 mark*

1

- (c) (i) Geiger-Muller tube (photographic) film

*for 1 mark*

1

- (ii) cancer, leukaemia, radiation sickness etc.

*for 1 mark*

1

**[10]**