ERRATA and notes

**Astrophysics**

None

**Medical Physics**

**Chapter 1**

p5 diagram separation between the ends of the red arrows should be y

p16 N.B. the near point is where you want the image to form

p18 near point is where you want the virtual image

25cm from the eye is the standard object position

**Chapter 2**

p12 to use Figure 1 in Q2b you need to find the difference in the dB level at 0 phons which is the minimum dB level for detection and the actual dB level. E.g. the 20 phon curve represents all sounds that the ear hears as 20 dB.

**Chapter 3**

p2 the 2 on the RHS of the axon potential with time graph should be a 3

**Chapter 4**

p6 Column headings should be

Substance Type Density/kgm-3 Speed/ms-1 Acoustic Impedance/kgm-2s-1

**Turning Points**

Chapter 1

p13 Q1b there is a lack of vertical consistency in the question!

p15 should read

Hence the charge on the droplet Q = mgd

VP

p16 says Stoke’s law was covered in topic 9.3 of the AS syllabus – it was not even mentioned.

Answers

1.3

1b 1.75 × 1011 C kg-1

2 3.51 × 1011 C kg-1

2.3

2b 2.75 × 10-19 J

2.4

2 3.14 × 107 ms-1

**Applied Physics**

**Chapter 1**

p14 The number of turns made by the flywheel as the string unwraps, N = h/πd

The speed of the object as the string unwraps comes from v = rω

p15 frictionless, so goes up and down in the same time

14s is 13.8s to 2 s.f.

p16 In more general terms, the equation T = Iα may be written as

p20 in the comparison table it should be T = Iα

p21 Q1b the vehicle speed decreases from 27 ms-1

Q2b 160 revolutions per minute

Q2c you will only obtain the value given using 3sf ω values from earlier

**Chapter 2**

p7 you need to look at chapter 12.3 in the main textbook as well

p9 The value of R is incorrect – it should be 8.31

Q1b 1.5 kJ is incorrect – it should be 150 J

Q2 the gas is expanded not compressed

Q3a the end of the question should read

immediately after it has been expanded

p26 Q1 delete ‘of heat per second’ (should either be just 600W or 600 J of heat per second; the text is a nasty mixture

**Answers**

1.1

3a 1.7 × 105

3b 27 000

2.1

30 J transferred out of the gas

2.2

1a(iii) 220 J

1a(iv) 374 J

3b 1920 J

2.3

4b(ii) 0.33

2.4

1a(ii) 0.10