**Essential – Test 5 Marking Key**

|  |  |  |
| --- | --- | --- |
| **1.** | **1 mark** |  |
| **a)** | 5 x 1000 = 5000 watts |  |
|  | multiplies to get the correct answer | **½** |
| **b)** | 7.28 x 1000 = 7280 watts |  |
|  | multiplies to get the correct answer | **½** |
|  |  |  |
| **2.** | **1 mark** |  |
| **a)** | 1075 ÷ 1000 = 1.075kW |  |
|  | divides to get the correct answer | **½** |
| **b)** | 900 ÷ 1000 = 0.9kW |  |
|  | divides to get the correct answer | **½** |
|  |  |  |
| **3.** | **1 mark** |  |
| **a)** | 600 x 4.2 = 2520kJ |  |
|  | multiplies to get the correct answer | **½** |
| **b)** | 1500 ÷ 4.2 = 357.14 calories |  |
|  | divides to get the correct answer | **½** |
|  |  |  |
| **4.** | **2 marks** |  |
| **a)** | 25 x 4 = 100km |  |
|  | multiplies by 4 to get the correct answer | **1** |
| **b)** | 100 ÷ 2 = 50km/hr |  |
|  | divides by 2 to get correct answer | **1** |
|  |  |  |
| **5.** | **2 marks** |  |
| **a)** | 96000÷ 12 = $8 000 |  |
|  | divides by 12 to get correct answer | **1** |
| **b)** | 1200 x 26 = $31 200 |  |
|  | multiplies by 26 to get correct answer | **1** |
|  |  |  |
| **6.** | **3 marks** |  |
| **a)** | 6 x 24 = 144 prawns |  |
|  | multiplies to get correct answer | **1** |
| **b)** | 48 ÷ 6 = 8 people |  |
|  | divides by 6 | **1** |
|  | correct answer | **1** |
|  |  |  |
| **7.** | **2 marks** |  |
|  | 38.40÷ 4 = $9.60  9.60 x 5 = $48.00 |  |
|  | divided by 4 to get hourly rate | **1** |
|  | multiplies by 5 to get correct answer | **1** |
|  |  |  |
| **8.** | **9 marks** |  |
| **a)** | 4 x $3.20 = $12.80  3 x $3.99 = $11.97  Cheapest option is to purchase three 150g share packs |  |
|  | multiplies by 4 to calculate correct amount | **1** |
|  | multiplies by 3 to get correct amount | **1** |
|  | recognises cheapest option | **1** |
| **b)** | 7.90 ÷ 2 = $3.95 per L  9.20 ÷ 3 = $3.07 per L  Cheapest option is 3L for $9.20 as the cost per L is cheaper |  |
|  | divides by 2 to get correct answer | **1** |
|  | divides by 3 to get correct answer | **1** |
|  | recognises best buy and gives reason | **1** |
| **c)** | 10 ÷ 200 = $0.05 per min  12 ÷ 300 = $0.04 per min  cheapest option is 300 min card for $12.00 |  |
|  | divides by 200 to get correct answer | **1** |
|  | divided by 300 to get correct answer | **1** |
|  | recognises best buy | **1** |
|  |  |  |
| **9.** | **8 marks** |  |
| **a)** | 20 x 17 = 340kJ |  |
|  | multiplies to get correct answer | **1** |
| **b)** | 60 x 4 = 240 minutes  240 x 17 = 4080kJ |  |
|  | correctly calculates the number of minutes in 4 hours | **1** |
|  | multiplies to correctly calculate kJ | **1** |
| **c)** | 30 x 23 = 690kJ |  |
|  | recognises 30 minutes are half an hour | **1** |
|  | multiplies to correctly calculate kJ | **1** |
| **d)** | 1 hour = 60 minutes  60 x 53 = 3180 per day  3180 x 7 = 22 260kJ |  |
|  | recognises 60 minutes in one hour | **1** |
|  | multiples to calculate daily kJ | **1** |
|  | multiplies by 7 to calculate weekly kJ | **1** |
|  |  |  |
| **10.** | **9 marks** |  |
| **a)** | 75 x 3.7 x 8 = 2220kJ |  |
|  | multiplies correct amounts | **1** |
|  | gets correct answer | **1** |
| **b)** | 60 x 29 x 1.5 = 2610kJ  75 x 29 x 1.5 = 3262.5kJ  3262.5 – 2610 = 652.5kJ |  |
|  | correctly calculates Sarah’s kJ | **1** |
|  | correctly calculates Mark’s kJ | **1** |
|  | subtracts to find correct answer | **1** |
| **c)** | 80 x 18 x 0.25 = 360kJ  360 x 2 = 720kJ  80 x 6.8 x 5 = 2720 kJ  720 + 2720 = 3440kJ |  |
|  | correctly calculates kJ for walking | **1** |
|  | multiplies walking kJ by 2 to get total for the day | **1** |
|  | correctly calculates kJ for school work | **1** |
|  | adds amount together to get total kJ | **1** |
|  |  |  |
| **11.** | **3 marks** |  |
| **a)** | 35 700 ÷ 12 = 2975kJ |  |
|  | divides by 12 to get correct answer | **1** |
| **b)** | 2975 ÷ 35 = 85 minutes |  |
|  | divides by 35 | **1** |
|  | correct answer | **1** |
|  |  |  |
| **12.** | **5 marks** |  |
| **a)** | 275 x 2.5 = 687.5kJ |  |
|  | multiplies to get correct answer | **1** |
| **b)** | 687.5 ÷ 4.2 = 163.69 cal |  |
|  | divides to get correct answer | **1** |
| **c)** | 197x 2.5 = 492.5kJ  492.5kJ ÷ 4.2 = 117.26 cal  163.69 – 117.26 = 46.43 cals |  |
|  | multiplies to get kJ in Hi-Lo milk | **1** |
|  | correctly converts kJ to cal | **1** |
|  | subtracts to get correct answer | **1** |
|  |  |  |
| **13.** | **4 marks** |  |
| **a)** | 110 x 8 x 14 = 12 320 watts  12320 ÷ 1000 = 12.32kW |  |
|  | multiplies correct to calculate watts | **1** |
|  | divides by 1000 to correctly convert to kW | **1** |
| **b)** | 12.32 x 364 = 4484.48kW |  |
|  | multiplies by 364 to calculate yearly kW | **1** |
| **c)** | 4484.48 x 0.52 = $2331.93 |  |
|  | multiplies to find cost | **1** |
|  |  |  |
| **14.** | **2 marks** |  |
| **a)** | 4 ÷ 5 = 0.8  0.8 x 7 = 5.6kW |  |
|  | divides to calculate hourly rate | **1** |
|  | multiplies to get correct answer | **1** |
|  |  |  |
| **15.** | **5 marks** |  |
| **a)** | 15 x 6 = 90b/ min |  |
|  | multiplies to find rate | **1** |
|  | correct answer | **1** |
| **b)** | 35 x 4 = 140 b/min  Kim’s is lower |  |
|  | multiplies to find rate | **1** |
|  | correct answer | **1** |
|  | identifies Kim’s pulse rate is lower | **1** |