ALL UNITS

| **No.** | **CONTENT** |
| --- | --- |
| **0.1.** | I know the units for all of the physical quantities used in this course. |
| 0.1.1  | Give the units and symbols for the following quantities1. Voltage ii) Current iii) Time iv) Resistance v) Power

 vi) Energy vii) Force viii) Frequency ix) Gravitational Field Strength x) Mass xi) Temperature xii) Weight xiii) Wavelength |
| **0.2.** | I can use the prefixes: nano (n), micro(μ), milli (m), kilo(k), Mega(M) & Giga (G) |
| 0.2.1. | Convert the following to volts: i) 5 kV ii) 23 mV iii) 7 μV iv) 2.8 MV v) 67 nV vi) 389 μV |
| 0.2.2. | Use the correct prefix to write the following in the shortest possible form: i) 8000000 J ii) 0.000004 J iii) 6340 J iv) 0.005 J v) 0.000063 J vi) 9806000 J |
| 0.2.3. | Change the following to basic units: i) 50 km ii) 30000 km iii) 57 mm iv) 9 cm v) 8.31 km vi) 25 km 356 m 28 cm vii) 5 mm viii) 3 h ix) 2 min 40 s x) 8 min 22s xi) 7.45 mm xii) 7 h 25 min 30s xiii) 500 g xiv) 7400000 g xv) 250 mg xvi) 97.5 g xvii) 45 μg xviii) 3700 Mg |
| 0.2.4**.** | Change the following to basic units: i) 800 mA ii) 0.25 MA iii) 375 kA iv) 35.6 μA v) 35.6 kA vii) 9 430 000 μA viii) 750 mV ix) 4.7 MV x) 450 kV xi) 53 μV xii) 281kV xiii) 10670000 μV |
| 0.2.5 | Change the following to basic units: i) 56 kJ ii) 78 mJ iii) 8000 MJ iv) 0.3 μJ v) 0.0075 MJ vi) 3600 μJ |
| **0.3.** | I can give an appropriate number of significant figures when carrying out calculations |
| 0.3.1 | Convert the following to 3 significant figures. i) 23760000 V ii) 45.6783 A iii) 0.1023 m iv) 78945379.97 Hz v) 7600043.7 m/s vi) 1254879 V vii) 67593268.0076 m viii) 1214687 A |
| **0.4.** | I can use scientific notation when large and small numbers are used in calculations. |
| 0.4.1 | Write the following in scientific notation: i) 370 000 000 ii) 20 050 000 000 iii) 930 000 000 000 000 iv) 0.000 23 v) 0.00000006 vi) 0.000 000 000 04 |
| 0.4.2  | Write out the following in full: i) 3 × 108 ii) 2.75×104 iii) 7.004 × 109 iv) 8.4 × 10-3 v) 4.2× 108 vi) 9.08 × 10-5 |