

## H1 Definition Checklist

1.	Systematic error	
2.	How to reduce systematic error?	
3.	Accuracy	
4.	Random error	
5.	How to reduce random error?	
6.	Precision	
7.	Base units	
8.	Derived units	
9.	Scalar & Vectors	
10.	Distance	
11.	Speed	
12.	Explain why it is incorrect to define speed as distance per second	
13.	Displacement	
14.	Velocity	
15.	Acceleration	
16.	2 conditions for equations of motion	

17.	Equation of motion (1) $v = u + at$	
18.	Equation of motion (2) $s = \frac{1}{2}(u+v)t$	
19.	Equation of motion (3) $v^2 = u^2 + 2as$	
20.	Equation of motion (4) $s = ut + \frac{1}{2}at^2$	
21.	Field of force	
22.	Gravitation field	
23.	Electric field	
24.	Magnetic field	
25.	Hooke's law	
26.	2 conditions for static equilibrium	
27.	3 forces in equilibrium	
28.	Principle of moments	
29.	Moment of a force	
30.	Torque of a couple	
31.	Couple	
32.	Define centre of gravity	
33.	Newton's first law	
34.	Newton's second law	

35.	Newton's third law	
36.	Action-reaction pairs	
37.	Linear momentum	
38.	Impulse of a force	
39.	Principle of conservation of linear momentum	
40.	Mass	
41.	Weight	
42.	Apparent weightlessness	
43.	Work done by a constant force	
44.	Define energy	
45.	Potential energy (PE)	
46.	Principle of conservation of energy	
47.	Gravitational Potential Energy (GPE)	
48.	Elastic potential energy (EPE)	
49.	Derive $KE = \frac{1}{2} mv^2$	
50.	Derive $GPE = mgh$	

51.	Power	
52.	Derive $P = Fv$	
53.	Angular displacement	
54.	Define 1 radian	
55.	Angular velocity	
56.	Linear/tangential velocity	
57.	Centripetal force	
58.	Explain why a person in a satellite orbiting earth experiences "weightlessness" although the gravitation field strength at that height is not zero	
59.	Why is velocity constant for an object in horizontal circular motion?	
60.	Use newton's laws to explain why an object moving with constant speed in a circle experiences a resultant force towards the centre of the circle.	

61.	Geostationary satellites	
62.	Requirements for geostationary orbit	
63.	Newton's Law of gravitation	
64.	Gravitational field strength	
65.	Explain why apparent weight at equator is more than at the poles	
66.	Current	
67.	Emf (in terms of energy)	
68.	Potential difference (in terms of energy)	
69.	Resistance	
70.	Metallic ohmic resistor at constant temperature (sketch and explain)	
71.	Semiconductor diode (sketch and explain)	
72.	Filament lamp (sketch and explain)	
73.	NTC Thermistor (sketch and explain)	

74.	Resistivity	
75.	Characteristic of Light-dependent resistor	
76.	Characteristic of thermistor	
77.	Electric field	
78.	Electric field strength	
79.	Magnetic field	
80.	Direction of a magnetic field line	
81.	Magnetic flux density	
82.	Fleming's left hand rule	
83.	How does a ferrous core change the field lines?	
84.	Describe circular motion for charged particle in B field	
85.	Describe charged particle in velocity selector	
86.	Infer results from Rutherford's scattering experiment	

87.	Isotope	
88.	Nucleon	
89.	Nuclide	
90.	Nuclear stability	
91.	Binding energy in nucleus	
92.	Explain by reference to the Binding energy per nucleon graph, how, in both nuclear fusion and fission, energy is released	
93.	Binding energy per nucleon number	
94.	Fusion	
95.	Fission	
96.	Radioactivity	
97.	Spontaneous	
98.	Random	

99.		Notation	Charge	Mass	Nature	Penetrating Ability
	Nature of Alpha particles					
	Nature of Beta particles					
	Nature of Gamma particles					
100.	Activity					
101.	Decay constant					
102.	Half-life					
103.	Ionizing radiation					
104.	Background radiation					
105.	Direct effect of ionizing radiation on cells					
106.	Indirect effect of ionizing radiation on cells					