Marking Scheme for Physics Olympiad - M.C.Q. Paper - 2006

(1) 1 (One)
(2) 4 (Four)
(3) 3 (Three)
(4) 5 (Five)
(5) 4 (Four)
(6) 4 (Four)
(7) 1 (One)
(8) 3 (Three)
(9) 5 (Five)
(10) 2 (Two)

(11) 5 (Five)
(12) 1 (One)
(13) 2 (Two)
(14) 1 (One)
(15) 3 (Three)
(16) 2 (Two)
(17) 2 (Two)
(18) 5 (Five)
(19) 3 (Three)
(20) 3 (Three)

02 marks each 02x20 = 40 marks

ANSWER SHEET FOR PART B

QUESTION NUMBER	ANSWERS	MARKS (examiner's use)
1 (i)	$F_1 = \dfrac{mv^2}{L}$	**10**
(ii)	$F_2 = \dfrac{mv^2}{L-d}$	**10**

2.	$W = Mg\cos^2\theta$ OR $Mg(1-\sin^2\theta)$	**20**

3. (i)	$R = 4.5\times10^{16}\ \mathrm{kg\,m^{-4}\,s^{-1}}$	**03+02** (02 marks for the correct unit)
(ii)	$N = 4.5\times10^{9}$	**10**
(iii)	$v = 4.4\times10^{-4}\ \mathrm{m\,s^{-1}}$ (OR $0.44\ \mathrm{mm\,s^{-1}}$)	**05**