INDIAN SCHOOL MUSCAT

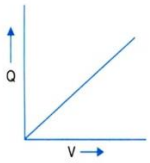
SECOND PERIODIC ASSESSMENT

PHYSICS

042

CLASS: XII MAX.MARKS: 20

Marking Scheme

1.	(b) infinite	1
2.	(c) C/V	1
3	(b) increase by 4 times	1
4	(d) 70 V	1
5	a) Q, -Q	1
6	Yes Equatorial plane of an electric dipole	1 1
7	Three equipotential surfaces. (equidistant)	2
8	$\Delta V = 0$, so $W = 0$	2
9	Dipole moment definition Derivation of electric potential along the axial line of an electric dipole.	1 2
10	(i) Charge remains same since the battery is disconnected. (ii) Capacitance increases due to the presence of dielectric slab. (iii) Electric field decreases $E' = \frac{E}{K}$	1 1 1
11	a)  b) $U = \frac{9 x 10^9 x 10 x 10^{-6} x -10 x 10^{-6}}{40 x 10^{-2}} = -2.25$ J	1 2