	BCM SCHOOL, BASANT AVENUE, DUGRI ROAD, LUDHIANA **Class XI**
Sol 1.	(c)
2.	(b)
3.	(b)
4.	(c)
5.	(a)
6.	$(1-i)^n\,(1+i)^n = (1-i^2)^n = 2^n$
7.	For purely real, Imaginary part = 0 So, imaginary part of z =0 ⇨ 8 sinθ =0⇨ Therefore, θ = nπ where n ϵZ
8.	$=(1+i)([i+i^2+i^3+i^4]+[i^5+\cdots+i^8]\ldots.+[i^{10}+\cdots.+i^{12}+i13])$ $=i-1$ $=-1+i$
9.	Z lies on Y axis i.e. z is pure imaginary
10.	(1) 1 + 5i (2) -8 + 4i, complex (3) $\sqrt{26}$