ATOMIC ENERGY EDUCTION SOCIETY PERODIC TEST II (2017–18) DATE OF EXAM- 16 Sept 2017

Class- IX Subject- Mathematics		Time: 1 ½ hrs Marks: 40	
	Section A	$1M \ge 3 = 3M$	
1.	What is the rationalising factor of ($7-2\sqrt{3}$)		
2.	Using appropriate identity factorise $4x^2 - y^2$		
3.	Write the angle which is one – fifth of its complement.		
	Section B	$2M \ge 3 = 6M$	
4.	Find the value of K for which the point (-1, -3) lies on the graph of $2x + y + k = 0$	of the equation	
5.	State any two Euclid's axioms.		
6.	Express the number $0.\overline{99}$ in the form <u>p/q</u> where p and q are integ <u>Section C</u>	ers and q≠0 3M x 5 = 15M	
7.	Find the remainder when the polynomial $f(x) = 4x^3 - 12x^2 + 14x$	- 3 is divided by 2x-1	
8.	Represent $\sqrt{3}$ on a number line.		
9.	Find a and b if $\frac{1 - \sqrt{3}}{1 + \sqrt{3}} = a + b$		

- 10. In which quadrant or on which axis does each of the following points lie (-5, 3), (4, -3), (5, 0), (6, 6), (-5, -4), (0, 4).
- 11. In the figure if x + y = w + z, then prove that AOB is a straight line.



Section D

$4 \times 4 = 16M$

- 12. In $\triangle ABC$, AC> AB. The bisectors of $\angle B$ and $\angle C$ intersect each other at O. Prove that OC > OB
- 13. If a + b + c = 6 and ab + bc + ca = 11 find the value of $a^3 + b^3 + c^3 3abc$
- 14. Give the geometric representation of y = 4 as an equation in
 - a) one variable

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- b)Two variables
- 15. In the figure D and E are points on the base of $\triangle ABC$ such that BD = CE and AD = AE. Prove that AB = AC

