

**ANSWER KEY FOR**  
**ARYABHATTA INTER-SCHOOL MATHS COMPETITION – 2002**

**Class - VIII**

**PART - I**

1. (i)  $\frac{7}{64}$   
(ii) 17m  
(iii) 27  
(iv)  $3(2a-b-c)(2b-c-a)(2c-a-b)$   
(v) 2  
(vi) 17.5  
(vii) 200  
(viii) 16  
(ix)  $80^\circ$   
(x) Equidistant

2. (i) T  
(ii) T  
(iii) F  
(iv) T  
(v) T  
(vi) T  
(vii) F  
(viii) T  
(ix) F  
(x) T

3. (i) (b)  
(ii) (c)  
(iii) (c)  
(iv) (b)

NOTE: This answer key is created by [KoolSmartLearning.com](http://KoolSmartLearning.com) for reference purpose.

- (v) (b)
- (vi) (a)
- (vii) (a)
- (viii) (c)
- (ix) (d)
- (x) (a)

## PART - II

- 4. (i) 58
  - (iii) 18
  - (iv) 0.654
5. (i)  $(x - \frac{1}{x})^2(x + \frac{1}{x})^2(x^2 + \frac{1}{x^2})^2$
- (ii) ₹750
  - (iii) 21
6. (i) 9kmph
- (ii)  $(-3/5)^7$
  - (iii) 0.3, 0.45, 0.6
  - (iv) 40 years, 10 years
7. (i)  $100^\circ$  &  $40^\circ$  respectively
- (ii)  $110^\circ$
  - (iv) 4 days
8. (i) 10 cm
- (iii) 48000 years
  - (iv)  $200\sqrt{3}$  cm<sup>2</sup>
9. (i)  $60^\circ$
- (ii)  $2a^2 + 3b^2 + c^2 - \sqrt{6}ab + \sqrt{3}bc + \sqrt{2}ac$
  - (iii) ₹14850, 65%
- 10.(i) 683.83cm<sup>3</sup>
- (ii) (a) 30
  - (b) 33.3
  - (c) 33.5
  - (d) 35.3

KSL