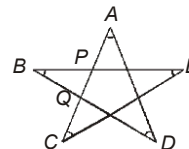




**RAMAGYA SCHOOL, NOIDA**  
VIII/CYBER/2017-18  
OLYMPIAD PRACTICE WORKSHEET

1. In the star shape shown in figure, the sum of the angles marked at the corners  $A, B, C, D, E$  is

- (A)  $90^\circ$  (B)  $135^\circ$   
(C)  $180^\circ$  (D)  $140^\circ$



2. An acute angle is an angle whose measure is between  $0^\circ$  and  $90^\circ$ . Using the rays in the diagram, how many different acute angles can be formed?

- (A) 12 (B) 9 (C) 15 (D) 10

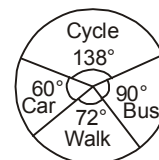


3. The age of a man is same as his wife's age with the digits reversed. Then sum of their ages is 99 and the man is 9 years older than his wife. How old is the man?

- (A) 50 (B) 49 (C) 54 (D) 44

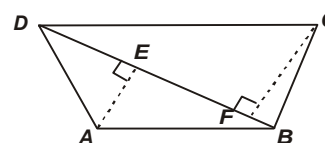
4. 50 students from a certain colony attend a public school. With the help of the given pie-chart, find the total number of students who walk to school.

- (A) 12 (B) 10 (C) 18 (D) 8



5. Total area of quadrilateral  $ABCD$  is  $20 \text{ cm}^2$  and offsets on  $BD$  are 2 cm and 3 cm. The length of  $BD$  is

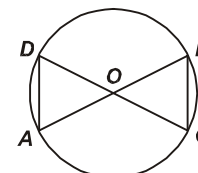
- (A) 5 cm (B) 6 cm  
(C) 8 cm (D) 10 cm



6. In the adjoining figure,  $AOB$  and  $COD$  are the diameters of a circle.

If  $\angle ADO = 55^\circ$  then  $\angle OCB$  is

- (A)  $27\frac{1}{2}^\circ$  (B)  $62\frac{1}{2}^\circ$   
(C)  $55^\circ$  (D)  $35^\circ$



7. How many small cubes with edges of 10 cm can be just accommodated in a cubical box of 1 m edge?

- (A) 10 (B) 100 (C) 1000 (D) 10000

8. A cylinder and a cone have the same height and the same radius of the base. The ratio between the volumes of the cylinder and the cone is

- (A) 1:3 (B) 3:1 (C) 1:2 (D) 2:1

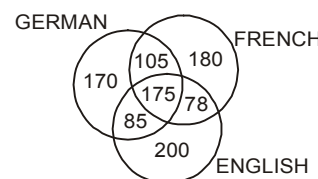
**LOGICAL & ANALYTICAL REASONING**

9. If in a certain code SAND is VDQG and BIRD is ELUG, then what is the code for LOVE?

- (A) PRYG (B) ORTG (C) NPUH (D) ORYH

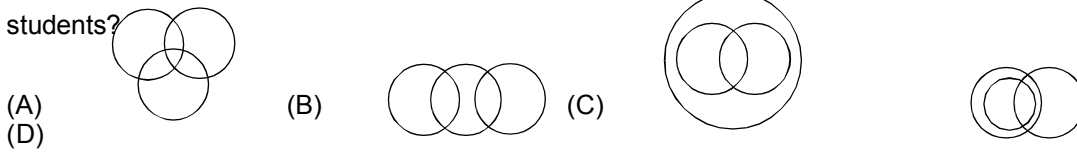
10. A survey was conducted on a sample of 1000 persons with reference to their knowledge of English, French and German. The results of the survey are presented in the given Venn diagram. The ratio of the number of persons who do not know any of the three languages to those who know all the three languages is

- (A)  $\frac{1}{27}$  (B)  $\frac{1}{35}$  (C)  $\frac{7}{175}$  (D)  $\frac{175}{1000}$



11. The number of times in a day the hour-hand and the minute-hand of a clock are at right angles is  
 (A) 44 (B) 48 (C) 24  
 (D) 12.

12. Which one of the following diagrams correctly represents the relationship among tennis fans, cricket players and students?



13. A, B, C, D, E and F, not necessarily in that order, are sitting on six chairs regularly placed around a round table. It is observed that A is between D and F, C is opposite D, D and E are not on neighbouring chairs. The person sitting opposite B is  
 (A) A (B) D (C) E  
 (D) F

**COMPUTERS & INFORMATION**

14. Who defined the binary system ?  
 (A) A.N.D. Leibniz (B) Pascal  
 (C) Newton (D) Aristotle

15. Computers use the seven digit code called ASCII. What does ASCII stand for?  
 (A) American Standard Code for Information Interchange  
 (B) Association of Software Coding and Information Institute  
 (C) American Standard Computing and Information Institute  
 (D) American Scientists Convention for Information Interchange.

16. Match the following

	<b>Binary Number</b>	<b>Corresponding</b>	
	<b>decimal number</b>		
1.	1010101	31	
2.	101011	85	
3.	11111	139	
4.	10001011	43	
(A)	1B, 2D, 3A, 4C	1D, 2A, 3B, 4D	
(C)	1C, 2B, 3C, 4A	1A, 2C, 3D, 4B	

17. What is the addition of 101010 with 111111 ?  
 (A) 1101001  
 (B) 1001001  
 (C) 1111001  
 (D) 1100001

- 18.** Modern Computers do not work with decimal numbers. Instead they process binary numbers, groups of 0's and 1's because
- (A) Electronic devices are most reliable when designed for two state (binary) operation
  - (B) Binary circuits are simple
  - (C) Memory is only possible for binary numbers
  - (D) With decimal numbers, the circuits are complex and costly
- 19.** The first Indian analog computer was assembled by Indian Statistical Institute (ISI) of Calcutta in
- (A) 1953
  - (B) 1946
  - (C) 1950
  - (D) 1963
- 20.** Debug is a term denoting
- (A) Error correction processs
  - (B) Writing of instructions in developing a new program
  - (C) Fault detection in equipment
  - (D) Determining useful life