

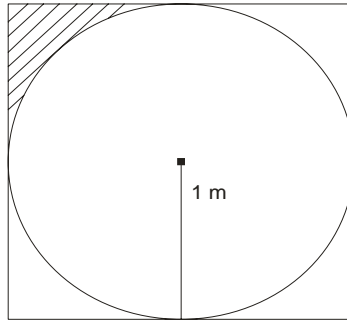
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**MENTAL ABILITY**

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- Q.1) The angles of a quadrilateral are in the ratio of 1 : 4 : 2 : 3. The angles are respectively :  
 (A)  $18^\circ$ ;  $72^\circ$ ;  $36^\circ$ ;  $54^\circ$       (B)  $72^\circ$ ;  $228^\circ$ ;  $144^\circ$ ;  $216^\circ$   
 (C)  $36^\circ$ ;  $114^\circ$ ;  $72^\circ$ ;  $108^\circ$       (D) None of the above

- Q.2) A circle of 1 m radius is drawn inside a square as shown in the above figure. What is the area of the shaded portion in  $m^2$ ?



- (A)  $(4 - \pi)$                       (B)  $\left(1 - \frac{\pi}{2}\right)$   
 (C)  $\left(\frac{1}{4} - \frac{\pi}{4}\right)$                       (D)  $\left(1 - \frac{\pi}{4}\right)$

- Q.3) If  $2x + 3y = 10$  and  $y < 4$ , then

- (A)  $x > -1$                       (B)  $x < -1$   
 (C)  $x > 0$                       (D)  $x < 0$

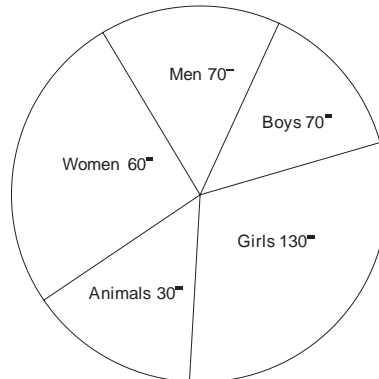
- Q.4) Ram started his journey at 9.00 a.m. at 8 km/hour. Hamid started from the same spot in the same direction at 9.30 a.m. at 10 km/hour. Hamid overtakes Ram at :

- (A) 11.00 a.m.                      (B) 12.30 p.m.  
 (C) 12.00 noon                      (D) 11.30 a.m.

- Q.5) A can do a piece of work in 12 days and B can do it in 10 days and A, B and C together in 5 days. C alone can do it in:

- (A) 17 days                      (B) 27 days  
 (C) 60 days                      (D) 30 days

- Q.6) The given diagram shows the population of a town. If the total population of the town is 7,20,000 then the number of animals in the town is :



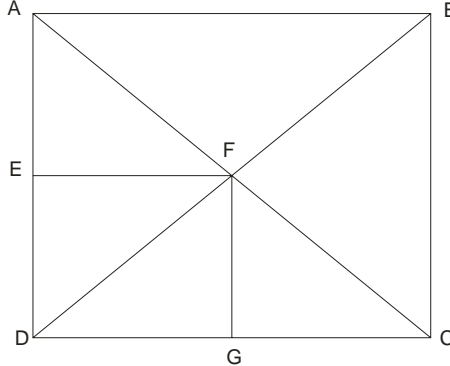
- (A) 30,000                      (B) 40,000  
 (C) 50,000                      (D) 60,000

- Q.7) What least number must be subtracted from each of the numbers 17, 17, 34, 42 so that the ratio of first two is the same as the ratio of the next two?  
(A) 0 (zero) (B) 1  
(C) 2 (D) 7
- Q.8) A circular road runs around a circular garden. If the sum of the circumferences of the inner and outer circles is 88 metres and the radius of the inner circle is one-third of the outer circle, then the width of the road is :  
(A) 4 metres (B) 5 metres  
(C) 6 metres (D) 7 metres
- Q.9) A city has a population of 3,00,000 out of which 1,80,000 are males. 50% of the population is literate. If 70% of the males are literate, the number of literate females is :  
(A) 20,000 (B) 24,000  
(C) 30,000 (D) 34,000
- Q.10) The cost price of an article is Rs. 100. To gain 50% after allowing a 50% discount, the market price of the article is :  
(A) Rs. 200 (B) Rs. 400  
(C) Rs. 350 (D) Rs. 300
- Q.11) In three annual examinations, of which the aggregate marks of each was 500, a student secured average marks 45% and 55% in the first and the second yearly examinations respectively. To secure 60% average total marks, it is necessary for him in third yearly examination to secure marks :  
(A) 300 (B) 350  
(C) 400 (D) 450
- Q.12) If RUNNER is coded by SUMMER, the code for WINTER will be :  
(A) XIMSER (B) VINTER  
(C) SINVER (D) VIOUER
- Q.13) P is 300 kms eastward of O and Q is 400 kms north of O. R is exactly in the middle of Q and P. The distance between Q and R is :  
(A) 300 kms (B) 350 kms  
(C) 250 kms (D)  $250\sqrt{2}$  kms
- Q.14) A man borrows Rs. 1200.00 from a bank for a period of 3 months. He finds that he has to repay Rs. 1236.00. The bank rate of interest is:  
(A) 3% (B) 6%  
(C) 12% (D) 24%
- Q.15) In climbing a round pole of 80 metres height, a monkey climbs 5 metres in a minute and slips 2 metres in the alternate minute. To get to the top of the pole, the monkey would take :  
(A) 51 minutes (B) 54 minutes  
(C) 58 minutes (D) 61 minutes
- Q.16) A man travels by a car for 3 days. He traveled 10 hours each day. He drove on the first day at 45 km/hr, second day at 40 km/hr and third day at 20 km/hr. His average speed was :  
(A) 30 km/hr (B) 35 km/hr  
(C) 38 km/hr (D) 40 km/hr
- Q.17) Forty three persons went to a canteen which sold cold drink 'Maaza' and 'Pepsi'. If 18 persons took Maaza only, 8 took Pepsi only and 5 took nothing, find how many took both the drinks :  
(A) 35 (B) 21  
(C) 12 (D) 26

- Q.18) A man works for 2 days and then rests for one day, then works for 2 days and rests for one day and so on. For everyday he works, he earns Rs. 100. How much will he earn from Monday to Saturday?  
 (A) Rs. 200 (B) Rs. 300  
 (C) Rs. 400 (D) Rs. 500

- Q.19) A rectangular plot of lawn of length and width respectively  $x$  and  $y$  metres is surrounded by a pathway of 2 metres width. The total area of pathway is :  
 (A)  $2x + 2y + 4$  (B)  $2x + 2y + 8$   
 (C)  $4x + 4y + 8$  (D)  $4x + 4y + 16$

- Q.20) How many triangles are there in the given figure?



- (A) 10 (B) 16  
 (C) 12 (D) 8

- Q.21) Unscramble the letters of words and find odd one out.  
 (1) TLAES (2) KOBO  
 (3) PPREA (4) NCEPLI

- Q.22) A square park is surrounded by a path of uniform width 2 metres all round it. The area of the path is 288 sq. metres. The perimeter of the park is  
 (1) 142 m (2) 128 m  
 (3) 136 m (4) 118 m

- Q.23) What is the sum of  $5x^3 - 3x^2 - 1$  and  $3x^2 + 1$ ?  
 (1)  $5x^3$  (2)  $6x^2$   
 (3)  $5x$  (4)  $3x^2$

- Q.24) India has won the "World Cup Hockey" title:  
 (1) Twice (2) Once  
 (3) Thrice (4) Never

- Q.25) The price of T.V. set inclusive of sales tax of 9% is Rs. 13,407. Find its marked price.  
 (1) Rs. 12,300 (2) Rs. 11,500  
 (3) Rs. 12,500 (4) Rs. 12,400

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### ANSWERS

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|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1. | (C) | 6.  | (D) | 11. | (C) | 16. | (B) | 21. | (1) |
| 2. | (D) | 7.  | (C) | 12. | (A) | 17. | (C) | 22. | (3) |
| 3. | (C) | 8.  | (D) | 13. | (C) | 18. | (C) | 23. | (1) |
| 4. | (D) | 9.  | (B) | 14. | (C) | 19. | (D) | 24. | (2) |
| 5. | (C) | 10. | (D) | 15. | (A) | 20. | (C) | 25. | (1) |

