

# Mental Ability

## Ganit Bodh Series

### Self Evaluation Test -10 (Sequence & Series)

- Find the 17th term of the sequence 11, 16, 21, .....  
(a) 81 (b) 96  
(c) 91 (d) None
- A sum of money kept in a bank amounts to Rs 1240 in 4 years and 1600 in 10 years. Find the amount of sum after 7 years.  
(a) 1300 (b) 1450  
(c) 1400 (d) 1420
- Three no. of A.P has sum 15 and sum of their squares is 83. Then product of the numbers will be  
(a) 105 (b) 315  
(c) 15 (d) None
- A person was appointed as a lecturer and received a salary of Rs 8700 p.m. in his first year of teaching with the expectation of being paid 8740 p.m. in his second year Rs 8780 p.m. in third year and so on. Then the salary he would expect to have received by the end of 10 years for next year is  
(a) 9060 (b) 9100  
(c) 9140 (d) 9180
- In an examination, A student taking a test consisting of 10 questions is told that each questions after the first is worth 2 marks more than the preceding questions. If the third question of the test is worth 5 marks. What is the maximum score that the student can obtain by attempting 8 questions  
(a) 88 (b) 92  
(c) 96 (d) 84
- The least value of  $n$  for which the sum of the series  $5 + 8 + 11 + \dots$  is not less than 670 is  
(a) 20 (b) 22  
(c) 21 (d) 19
- The interior angle of a polygon are in AP. The smallest angle is  $75^\circ$  and the common difference is  $10^\circ$ . Then the number of sides of polygon is  
(a) 6 (b) 4  
(c) 7 (d) 9
- The angles of a quadrilateral are in AP whose common difference is  $10^\circ$ . Then the greatest angle will be  
(a) 95 (b) 90  
(c) 115 (d) 105
- The present annual income of a man is Rs 400000. If his income increases each year by Rs 20000 for next 19 year. Find the total amount he will receive in 20 years  
(a) 1180000 (b) 1480000  
(c) 11800000 (d) None
- Harsh buys an old scooter for Rs 12000. He pays Rs 6000 in cash and agrees to pay the balance in annual instalments of Rs 500 each plus 12% interest on unpaid amount. How much scooter cost him?  
(a) 16860 (b) 16880  
(c) 16680 (d) 16870
- A circle is completely divided into  $n$  sectors in a such a way that the angles of the sectors are in AP. If the smallest of these angles is  $8^\circ$  and the largest is  $72^\circ$ . Then the angle in 5th sector is  
(a)  $60^\circ$  (b)  $48^\circ$   
(c)  $54^\circ$  (d)  $40^\circ$
- Two cars start together in same direction from the same place. The first goes with uniform speed of 40km/h. The second goes at speed of 36 km/h in the first hour and increases speed by 1 km each succeeding hour. After how many hours will the second car overtake the first car if both cars go non-stop?  
(a) 8 hours (b) 9 hours  
(c) 7 hours (d) None
- The inventor of the Chess board suggested a reward of one grain of one grain of wheat for the first square, 2 grains for the second, 4 grains for the third and so on, doubling the number of grains for subsequent squares. How many grains would have to be given to the inventors. (Note that there are 64 squares in the Chess board).  
(a)  $64^2 - 1$  (b)  $64^2$   
(c)  $2^{64}$  (d)  $2^{64} - 1$
- A Postman delivered daily for 42 days 4 more letters each day than on the previous day. The total delivery for the first 24 days of the period was the same as that for the last 18 days. How many letters did he deliver during the whole period?  
(a) 10096 (b) 12096  
(c) 12086 (d) None
- Balls are arranged in a row to form an equilateral triangle. The first row consists of one ball, the second of 2 ball and so on. If 669 more balls are added, then all the balls can be arrange in the shape of a square and each of its sides then consists 8 balls less than each side of the triangle did. Then the initial no. of balls are  
(a) 1560 (b) 1600  
(c) 1540 (d) 1660
- A cashier has to count a bundle of Rs 12000 one rupee notes. He counts at the rate of Rs 150 per minutes for an hour, at the end of which he begins to count at the rate of Rs 2 less every minute than he did the previous minute. The how long he will take to finish his task?  
(a) 1 hour 4 minutes (b) 1 hour 24 minutes  
(c) 1 hour 36 minutes (d) 1 hour 20 minutes
- In a certain test there are  $n$  questions. In this test  $2^{n-1}$  students give wrong answers to at least  $i$  questions ( $1 \leq i \leq n$ ). If the total no. of wrong answers is 2047. Then the value of  $n$  will be  
(a) 11 (b) 12  
(c) 10 (d) None
- A man collects Rs 1 on first day, Rs 3 on second day. Rs 6 on third day, Rs 10 on fourth day and so on in the month of April. Then what will be his collection on 30th April?  
(a) Rs 435 (b) Rs 475  
(c) Rs 465 (d) Rs 4960
- A sum is distributed among certain number of persons second person gets one rupee more than the first, third person gets two rupee more than the second, fourth person gets three rupee more than the third and so on. If the first person gets one rupee and the last person gets 67 rupees. Then the number of persons are  
(a) 12 (b) 16  
(c) 13 (d) 15
- On the ground 20 stones are placed. The distance between first and second is one meter, between  $2^{\text{nd}}$  and  $3^{\text{rd}}$  is 3 meter, between  $3^{\text{rd}}$  and  $4^{\text{th}}$  is 5 meter and so on. How far will a person have to travel to bring last stone to put into basket, its basket is placed at the first stone.  
(a) 400 m (b) 361 m  
(c) 441 m (d) 5740 m