



3. What is the radius of a circular plot whose circumference is 176 m?  
 (a) 28 m (b) 26 m (c) 30 m (d) 24 m
4. Find the average of First 81 natural numbers.  
 (a) 40 (b) 41 (c) 42 (d) 43
5. Find the length of the longest bamboo that can be placed in a room 12 m long, 9 m broad and 8m high.  
 (a) 13 m (b) 14 m (c) 16 m (d) 17 m
6. Find C.I. on Rs.5000 for 2 years at 4% per annum.  
 (a) Rs.408 (b) Rs. 400 (c) Rs. 508 (d) Rs. 500
7. Do multiplication  $123 \times 999$  with shortcut method.  
 (a) 122867 (b) 122567 (c) 122877 (d) 122527

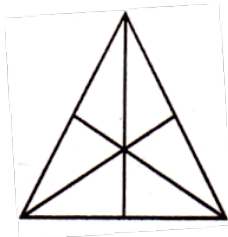
**B).** Choose the correct option. (Each of two marks)

**(08)**

1. Find the H.C.F. & L.C.M. of 132, 360.  
 (a) 12, 3960 (b) 10, 4660 (c) 14, 2340 (d) 16, 8460
2. Mahesh borrowed Rs.3000 from his friend Suresh at 15% per annum for 3 years. Find the Interest & Money returned by Mahesh to Suresh.  
 (a) 1250, 4250 (b) 1320, 4320 (c) 1350, 4350 (d) 1150, 4150
3. Find the Sum of  $1, \frac{1}{3}, \frac{1}{9}, \frac{1}{27}, \frac{1}{81}, \& \frac{1}{243}$

- (a)  $\frac{264}{360}$  (b)  $\frac{364}{243}$  (c)  $\frac{463}{213}$  (d)  $\frac{729}{315}$

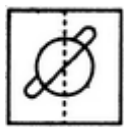
4. In each of the following questions, find the number of triangles in the given figure.



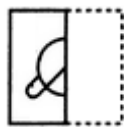
- (a) 16 (b) 13 (c) 9 (d) 7

**Q.3A)** Answer the following questions.

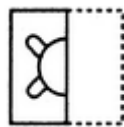
1) In each of the following problems, a square transparent sheet (X) with a pattern is given. Figure out from amongst the four alternatives as to how the pattern would appear when the transparent sheet is folded at the dotted line.



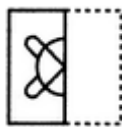
(X)



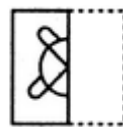
(A)



(B)



(C)



(D)

2) Choose the alternative which is closely resembles the water image of the given combination.

(3) GR98AP76ES (4) GR98VP76E2  
 (1) GR08AP70ES (5) GR98AP70ES  
 CR08VP70E2

3) Choose the alternative which is closely resembles the mirror image of the given combination.

ANS43Q12  
 (1) AN2P3Q12 (2) 21Q3P2NA  
 (3) 2NA3Q12 (4) 12Q3P2NA

Directions (Questions 4-7) : Study the letter series given below and answer the questions that follow:  
 H D Y S M W N B Q P O C R T B L Z V E G U F

4. Which is the only letter that occurs twice?  
 (a) B (b) E (c) M (d) S
5. How many 'T's are there in the following sequence which are immediately preceded by 'P' but not immediately followed by 'S'?  
 S T P Q T S P T R P T S R P S T Q P T R P T M P T S  
 (a) None (b) One (c) Two (d) Three (e) None of these
6. In the following series, count each 'N' which is immediately followed by 'X' but 'X' is not immediately followed by 'T'. How many such 'N's are there? (07)  
 N X N T Q M N X T M X N X C N Q M N N X Q N X T X N A M X N X M  
 (a) 2 (b) 4 (c) 5 (d) 7 (e) 9
7. In the following letter sequence, how many 'n's are followed by 'm' but not preceded by 'h'?  
 a g r h t n m b c n m l b u v n m h e r h n m g f e h n m e c n m w q a n m h l b  
 (a) 4 (b) 5 (c) 6 (d) 7

**B). Theory Question / Applied Arrange the given words in a meaningful sequence. (08)**

- 1) 1) Skull 2) Shoulder 3) Neck 4) Face 5) Legs  
 A) 1,2,3,4,5 B) 1,4,3,2,5 C) 1,3,4,2,5 D) 1,4,2,3,5
- 2) 1) Teacher 2) College 3) Guide 4) Study 5) Exam  
 A) 2,3,1,4,5 B) 2,4,1,3,5 C) 4,1,2,3,5 D) 2,1,3,4,5
- Find correct sequence of sentence :**
- 3) P: youngsters in the cities and the villages  
 Q: The effect  
 R: of the cinema  
 S: on the school and college going is very bad  
 A) PRQS B) QRSP C) QPSR D) RQSP
- 4) P. I have not come to complain he said  
 Q. even if it means some humiliation  
 R. but the boy must learn to be honest  
 S. and admit he broke it  
 A) PQRS B) QRPS C) QPRS D) PRQS
5. If CAGED is coded as 31754, what will be the code for DEAF?  
 a) 4517 (b) 4516 (c) 4519 (d) 4518
6. Bombay: Maharashtra :: Trivandrum: ?  
 (a) Calcutta (b) Gujarat (c) Rajasthan (d) Kerala (e) Sikkim
7. If in a code language, COULD is written as BNTKC and MARGIN is written as LZQFHM, how will MOULDING be written in that code?  
 A. CHMFINTK B. LNKTCHEM C. LNTKCHMF D. NITKHCMF
- 8) Write synonym of the following word  
 A. Dry B. Strained C. Rigorous D. Shrill

**Q.4 Choose the right option (Q1 is of one mark & remaining are of 2 marks) (15)**

1. The sum of length, breadth, and height of a cuboid is 12 m long, find the total surface area of the cuboid  
 (a)  $80 m^2$  (b)  $96 m^2$  (c)  $84 m^2$  (d)  $78 m^2$
2. A man purchased 5 toys at the rate of Rs.200 each, 6 toys at the rate of Rs.250 each & 9 toys at the rate of Rs.300 each. Calculate the average cost of one toy.  
 (a) 250 (b) 255 (c) 260 (d) 265
3. Find the sum of 20 terms of an A.P. whose first term is 3 & the last term is 57.  
 (a) 400 (b) 600 (c) 700 (d) 800
3. For what values of  $k$  will the system of equations  $kx + 2y = 5$ ,  $3x + y = 1$  have a no unique solution?  
 (a) 3 (b) 4 (c) 5 (d) 6

4. Solve the quadratic equation  $\sqrt{3} x^2 + 10x - 8\sqrt{3} = 0$ .
- (a)  $\frac{2}{\sqrt{5}}, \frac{-12}{\sqrt{5}}$       (b)  $\frac{1}{\sqrt{3}}, \frac{-2}{\sqrt{3}}$       (c)  $\frac{2}{\sqrt{3}}, \frac{-12}{\sqrt{3}}$       (d)  $\frac{12}{\sqrt{5}}, \frac{1}{\sqrt{5}}$
5. Find the sum of number of factors of 150.
- (a) 372      (b) 546      (c) 360      (d) 540
6. Nikita invested Rs.8000 for 3 years at 5% C.I. in a post office. If the interest is compounded once in a year, what sum will she get after 3 years?
- (a) 9061      (b) 8261      (c) 9161      (d) 9261
7. Find the average value of six numbers 7, 12, 17, 24, 26 & 28. If 8 is added to each number what will be the new average.
- (a) 18, 26      (b) 19, 27      (c) 20, 28      (d) 21, 29