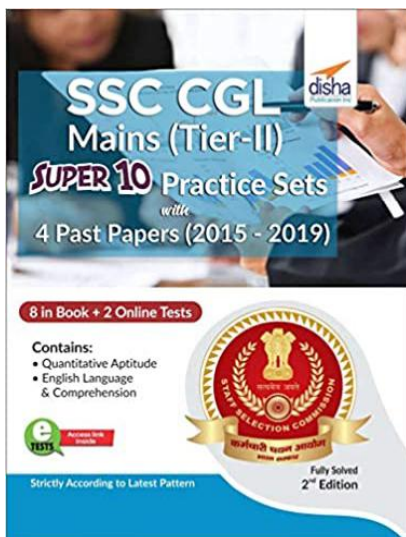


# Practice Sets for SSC CGL Tier-II Exams 2020

*This Section is taken from the Book:*



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# PRACTICE SET-3

Time : 2 Hours

**QUANTITATIVE ABILITY**

Max. Marks : 200

1. Which of the following group of fractions is arranged in ascending order?  
 (a)  $\frac{5}{16}, \frac{7}{18}, \frac{6}{17}$  (b)  $\frac{7}{18}, \frac{6}{17}, \frac{5}{16}$   
 (c)  $\frac{5}{16}, \frac{6}{17}, \frac{7}{18}$  (d)  $\frac{6}{17}, \frac{7}{18}, \frac{5}{16}$
2. Heera dealt some cards to Mohan and himself from a full pack of playing cards and laid the rest aside. Heera then said to Mohan, "If you give me a certain number of your cards, I will have 4 times as many card as you have. If I give you the same number of cards, I will have thrice as many card as you have." How many cards did Heera have?  
 (a) 31 (b) 32 (c) 29 (d) 30
3. A, B, C and D play a game of cards. A says to B. 'If I give you 8 cards, you will have as many as C has and I shall have 3 less than what C has. Also if I take 8 cards from C, I shall have twice as many as D has. If B and D together have 50 cards, how many cards has A got?  
 (a) 27 (b) 23 (c) 37 (d) 40
4. The students present in an auditorium are asked to stand in rows. If there were 4 students extra in a row there would be 4 less rows. However, if 2 students were less in a row, there would be 4 more rows. The number of students present in the auditorium is  
 (a) 80 (b) 96 (c) 100 (d) 128
5. There were two candidates in an election. 10% of the voters did not vote. 60 votes were declared invalid. The elected candidate got 308 votes more than his opponent. If the elected candidate got 47% of the total votes, how many votes did each candidate get?  
 (a) 2316 and 2012 (b) 2629 and 2324  
 (c) 2871 and 2575 (d) 2914 and 2606
6. Two friends A and B jointly lent out ₹ 81,600 at 4% per annum compound interest. After 2 years A gets the same amount as B gets after 3 years. The investment made by B was  
 (a) ₹ 40,000 (b) ₹ 30,000  
 (c) ₹ 45,000 (d) ₹ 38,000
7. A screw driver and a hammer currently have the same price. If the price of a screw driver rises by 5% and the price of hammer goes up by 3%, then how much more will it cost to buy 3 screw drivers and 3 hammers?  
 (a) 3% (b) 4% (c) 5% (d) 8%
8. A car owner buys petrol at ₹7.50, ₹ 8.00 and ₹8.50 per litre for three successive years. What approximately is his average cost per litre of petrol if he spends ₹ 4000 each year ?  
 (a) ₹ 8 (b) ₹ 9  
 (c) ₹ 7.98 (d) ₹ 8.50
9. Two casks of 48 L and 42 L are filled with mixtures of wine and water, the proportions in the two casks being respectively 13 : 7 and 18 : 17. If the contents of the two casks be mixed and 20 L of water is added to the whole, what will be the proportion of wine to water in the resultant solution?  
 (a) 21 : 31 (b) 12 : 13  
 (c) 13 : 12 (d) None of these
10. Three containers of capacity 20 L, 5 L and 9 L contain mixture of milk and water with milk concentrations 90%, 80% and 70% respectively. The contents of three containers are emptied into a large vessel. What is the approximate ratio of milk to water in the resultant mixture?  
 (a) 3 : 1 (b) 4 : 1  
 (c) 5 : 1 (d) 2 : 1
11. A mother and a daughter working together can complete a certain work in 4 days. But if the mother worked alone she could complete the work in 6 days. Both of them worked for one day and then the mother had to leave. How long will the daughter take to complete remaining work?  
 (a) 7 days (b) 8 days  
 (c) 6 days (d) 9 days
12. A man makes his upward journey at 16 km/h and downward journey at 28 km/h. What is his average speed ?  
 (a) 32 km/h (b) 56 km/h  
 (c) 20.36 km/h (d) 22 km/h

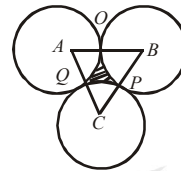
13. A gun is fired at a distance of 3.32 km from Chauhan. He hears its sound 10 seconds later. Find the speed of the sound.  
(a) 301 m/s (b) 302 m/s  
(c) 332 m/s (d) 340 m/s
14. An aeroplane first flew with a speed of 440 km/h and covered a certain distance. It still had to cover 770 km less than what it had already covered, but it flew with a speed of 660 km/h. The average speed for the entire flight was 500 km/h. Find the total distance covered.  
(a) 3250 km (b) 2750 km  
(c) 4400 km (d) 1375 km
15. Train A running at 60 km/h leaves Mumbai for Delhi at 6 p.m. Train B running at 90 km/h also leaves for Delhi at 9 p.m. Train C leaves Delhi for Mumbai at 9 p.m. If all the three trains meet at the same time between Mumbai and Delhi, then what is the speed of train C, if distance between Delhi and Mumbai is 1260 km?  
(a) 60 km/h (b) 90 km/h  
(c) 120 km/h (d) 135 km/h
16. A boat, while going downstream in a river covered a distance of 50 mile at an average speed of 60 miles per hour. While returning, because of the water resistance, it took one hour fifteen minutes to cover the same distance. What was the average speed of the boat during the whole journey?  
(a) 40 mph (b) 48 mph (c) 50 mph (d) 55 mph
17. If the product of first sixty positive consecutive integers be divisible by  $8^n$ , where n is an integer, then the largest possible value of n is  
(a) 18 (b) 19 (c) 17 (d) 16
18. A clock gains 15 minutes per day. It is set right at 12 noon. What time will it show at 4.00 am, the next day?  
(a) 4 : 10 am (b) 4 : 45 am  
(c) 4 : 20 am (d) 5 : 00 am
19.  $7^{10} - 5^{10}$  is divisible by  
(a) 10 (b) 7 (c) 5 (d) 12
20. If  $a^2 - 4a - 1 = 0$ ,  $a \neq 0$ , then the value of  $a^2 + 3a + \frac{1}{a^2} - \frac{3}{a}$  is  
(a) 24 (b) 26 (c) 28 (d) 30
21. If  $\frac{x}{(2x+y+z)} = \frac{y}{(x+2y+z)} = \frac{z}{(x+y+2z)} = a$ , then find 'a' if  $x+y+z \neq 0$   
(a)  $\frac{1}{3}$  (b)  $\frac{1}{4}$  (c)  $\frac{1}{8}$  (d)  $\frac{1}{2}$
22. If  $a + b + c = 0$ , find the value of  $\frac{a+b}{c} - \frac{2b}{c+a} + \frac{b+c}{a}$ .  
(a) 0 (b) 1 (c) -1 (d) 2
23. If  $a = 331$ ,  $b = 336$  and  $c = -667$ , then the value of  $a^3 + b^3 + c^3 - 3abc$  is  
(a) 1 (b) 6 (c) 3 (d) 0
24. If  $x + \frac{1}{x} = a$ , then what is the value of  $x^3 + x^2 + \frac{1}{x^3} + \frac{1}{x^2}$ ?  
(a)  $a^3 + a^2$  (b)  $a^3 + a^2 - 5a$   
(c)  $a^3 + a^2 - 3a - 2$  (d)  $a^3 + a^2 - 4a - 2$
25. Father is aged three times more than his son Ronit. After 8 years, he would be two and a half times of Ronit's age. After further 8 years, how many times would he be of Ronit's age?  
(a) 2 times (b)  $2\frac{1}{2}$  times  
(c)  $2\frac{3}{4}$  (d) 3 times
26. The autorickshaw fare consists of a fixed charge together with the charge for the distance covered. For a journey of 10 km, the charge paid is ₹ 85 and for a journey of 15 km, the charge paid is ₹ 120. The fare for a journey of 25 km will be  
(a) ₹ 175 (b) ₹ 190  
(c) ₹ 180 (d) ₹ 225
27. The sum of third, fourth and fifth part of a number exceeds half of the number by 34. Find the number.  
(a) 60 (b) 120  
(c) 30 (d) None of these
28. There are some parrots and some tigers in a forest. If the total number of animal heads in the forest is 858 and the total number of animal legs is 1,846, what is the number of parrots in the forest?  
(a) 845 (b) 833 (c) 800 (d) 793
29. A man has ₹ 480 in the denominations of one-rupee notes, five-rupee notes and ten-rupee notes. The number of notes of each denomination is equal. What is the total number of notes that he has?  
(a) 45 (b) 60 (c) 75 (d) 90
30. A number consists of two digits whose sum is 10. If the digits of the number are reversed, then the number decreased by 36. Which of the following is/are correct?  
I. The number is divisible by a composite number.  
II. The number is a multiple of a prime number.

Select the correct answer using the codes given below:

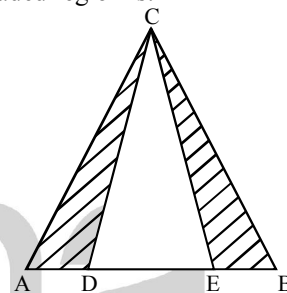
- (a) Only I (b) Only II  
(c) Both I and II (d) Neither I nor II
31. What is the area between a square of side 10 cm and two inverted semicircular cross-sections each of radius 5 cm inscribed in the square?  
(a)  $17.5 \text{ cm}^2$  (b)  $18.5 \text{ cm}^2$   
(c)  $20.5 \text{ cm}^2$  (d)  $21.5 \text{ cm}^2$
32. One side of a parallelogram is 8.06 cm and its perpendicular distance from opposite side is 2.08 cm. What is the approximate side is 2.08 cm. What is the approximate area of the parallelogram?  
(a)  $12.56 \text{ cm}^2$  (b)  $14.56 \text{ cm}^2$   
(c)  $16.76 \text{ cm}^2$  (d)  $22.56 \text{ cm}^2$
33. What is the area of a circle whose area is equal to that of a triangle with sides 7 cm, 24 cm and 25 cm?  
(a)  $80 \text{ cm}^2$  (b)  $84 \text{ cm}^2$   
(c)  $88 \text{ cm}^2$  (d)  $90 \text{ cm}^2$
34. If  $b \tan \theta = a$ , the value of  $\frac{a \sin \theta - b \cos \theta}{a \sin \theta + b \cos \theta}$   
(a)  $\frac{a-b}{a^2+b^2}$  (b)  $\frac{a+b}{a^2+b^2}$   
(c)  $\frac{a^2+b^2}{a^2-b^2}$  (d)  $\frac{a^2-b^2}{a^2+b^2}$
35. If  $2y \cos \theta = x \sin \theta$  and  $2x \sec \theta - y \csc \theta = 3$ , then the relation between  $x$  and  $y$  is  
(a)  $2x^2 + y^2 = 2$  (b)  $x^2 + 4y^2 = 4$   
(c)  $x^2 + 4y^2 = 1$  (d)  $4x^2 + y^2 = 4$
36. If  $x = a \cos \theta - b \sin \theta$ ,  $y = b \cos \theta + a \sin \theta$ , then find the value of  $x^2 + y^2$ .  
(a)  $a^2$  (b)  $b^2$   
(c)  $\frac{a^2}{b^2}$  (d)  $a^2 + b^2$
37. If  $\sin x + \cos x = p$  and  $\sin^3 x + \cos^3 x = q$ , then what is  $p^3 - 3p$  equal to?  
(a) 0 (b)  $-2q$  (c)  $2q$  (d)  $4q$
38. If  $\tan A + \cot A = 4$  then  $\tan^4 A + \cot^4 A$  is equal to  
(a) 110 (b) 191  
(c) 80 (d) 194
39. From a lighthouse the angles of depression of two ships on opposite sides of the lighthouse are observed to  $30^\circ$  and  $45^\circ$ . If the height of lighthouse is  $h$ , what is the distance between the ships?

- (a)  $(\sqrt{3}+1)h$  (b)  $(\sqrt{3}-1)h$   
(c)  $\sqrt{3}h$  (d)  $\left(1+\frac{1}{\sqrt{3}}\right)h$

40. Three circles with centres  $A, B$  and  $C$  and with unit radii touch each other at  $O, P$  and  $Q$ . Find the area of the shaded region.

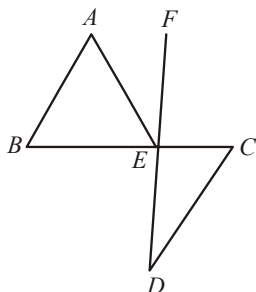


- (a) 0.16 sq. units (b) 1.21 sq. units  
(c) 0.03 sq. units (d) 0.32 units
41. In the equilateral triangle  $ABC$ ,  $AD = DE = BE$ ,  $D$  and  $E$  lies on the  $AB$ . If each side of the triangle (i.e.,  $AB, BC$  and  $AC$ ) be 6 cm, then the area of the shaded region is:



- (a)  $9 \text{ cm}^2$  (b)  $6\sqrt{3} \text{ cm}^2$   
(c)  $5\sqrt{3} \text{ cm}^2$  (d) None of these
42. The diameter of a garden roller is 1.4 m and it is 2 m long. How much area will it cover in 5 revolutions? (use  $\pi = \frac{22}{7}$ )  
(a)  $40 \text{ m}^2$  (b)  $44 \text{ m}^2$   
(c)  $48 \text{ m}^2$  (d)  $36 \text{ m}^2$
43. The ratio of height of a room to its semi-perimeter is  $2 : 5$ . It costs ₹ 260 to paper the walls of the room with paper 50 cm wide at ₹ 2 per metre allowing an area of 15 sq. m for doors and windows. The height of the room is:  
(a) 2.6m (b) 3.9m  
(c) 4m (d) 4.2m
44. A rectangle of maximum area of drawn inside a circle of diameter 5 cm. What is the maximum area of such a rectangle?  
(a)  $25 \text{ cm}^2$  (b)  $12.5 \text{ cm}^2$   
(c)  $12 \text{ cm}^2$  (d) None of these

45. In the figure given below,  $AB$  is parallel to  $CD$ .  
 $\angle ABC = 65^\circ$ ,  $\angle CDE = 15^\circ$  and  $AB = AE$ ,



What is the value of  $\angle AEF$ ?

- (a)  $30^\circ$  (b)  $35^\circ$  (c)  $40^\circ$  (d)  $45^\circ$   
 46. In a right angled  $\triangle ABC$ ,  $\angle C = 90^\circ$  and  $CD$  is perpendicular to  $AB$ . If  $AB \times CD = CA \times CB$ , then

$\frac{1}{CD^2}$  is equal to

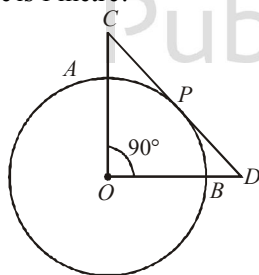
(a)  $\frac{1}{AB^2} - \frac{1}{CA^2}$

(b)  $\frac{1}{AB^2} - \frac{1}{CB^2}$

(c)  $\frac{1}{BC^2} + \frac{1}{CA^2}$

(d)  $\frac{1}{BC^2} - \frac{1}{CA^2}$ , if  $CA > CB$

47. In a circle  $O$  is the centre and  $\angle COD$  is right angle.  $AC = BD$  and  $CD$  is the tangent at  $P$ . What is the value of  $AC + CP$ , if the radius of the circle is 1 metre?



- (a) 105 cm  
 (b) 141.4 cm  
 (c) 138.6 cm  
 (d) can't be determined  
 48. Two circles touch each other internally. Their radii are 4 cm and 6 cm. What is the length of the longest chord of the outer circle which is outside the inner circle?

- (a)  $4\sqrt{2}$  cm (b)  $4\sqrt{3}$  cm  
 (c)  $6\sqrt{3}$  cm (d)  $8\sqrt{2}$  cm

49. Out of 500 first year students, 260 passed in the first semester and 210 passed in the second semester. If 170 did not pass in either semester, how many passed in both semesters?  
 (a) 30 (b) 40 (c) 70 (d) 140  
 50. The total number of 3-digit numbers which are exactly divisible by 6 is:

- (a) 149 (b) 150 (c) 151 (d) 166

51. The number 1, 2, 3, 4, ..., 1000 are multiplied together. The number of zeros at the end (on the right) of the product must be :

- (a) 30 (b) 200 (c) 211 (d) 249

52.  $(19^{19} + 19)$  is divided by 20, the remainder is

- (a) 18 (b) 19 (c) 20 (d) 21

53. A, B, C, D and E are five consecutive odd numbers. The sum of A and C is 146. What is the value of E?

- (a) 75 (b) 81 (c) 71 (d) 79

54. If  $\sin \theta + \sqrt{\sin \theta + \sqrt{\sin \theta + \sqrt{\sin \theta + \dots \infty}}} = \sec^4 \alpha$ , then  $\sin \theta$  is equal to

- (a)  $\sec^2 \alpha$  (b)  $\tan^2 \alpha$   
 (c)  $\sec^2 \alpha \tan^2 \alpha$  (d)  $\cos^2 \alpha$

55. The value of  $\frac{\sqrt{1+\sin x} + \sqrt{1-\sin x}}{\sqrt{1+\sin x} - \sqrt{1-\sin x}}$  is equal to

- (a)  $\operatorname{cosec} x + \cot x$   
 (b)  $\operatorname{cosec} x + \tan x$   
 (c)  $\sec x + \tan x$   
 (d)  $\operatorname{cosec} x - \cot x$

56. In a triangle ABC,  $AB + BC = 12$  cm,  $BC + CA = 14$  cm and  $CA + AB = 18$  cm. Find the radius of the circle (in cm) which has the same perimeter as the triangle.

- (a)  $\frac{5}{2}$  (b)  $\frac{7}{2}$  (c)  $\frac{9}{2}$  (d)  $\frac{11}{2}$

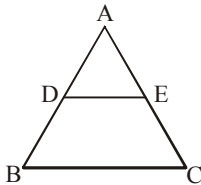
57. The sum of all interior angles of a regular polygon is twice the sum of all its exterior angles. The number of sides of the polygon is

- (a) 10 (b) 8 (c) 12 (d) 6

58. In  $\triangle ABC$ ,  $AB = 5$  cm,  $AC = 7$  cm. If AD is the angle bisector of  $\angle A$ , then BD : CD is –

- (a) 25 : 49 (b) 49 : 25  
 (c) 6 : 1 (d) 5 : 7

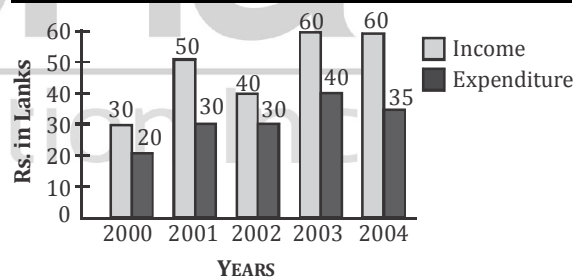
59. In the given figure if  $DE \parallel BC$ ,  $AD = x + 4$ ,  $DB = x + 3$ ,  $AE = 2x - 1$  and  $EC = x + 1$ , then value of  $x$  is



- (a)  $\sqrt{5}$  (b)  $\sqrt{6}$  (c)  $\sqrt{3}$  (d)  $\sqrt{7}$
60. A rectangular field is 22 m long and 10 m wide. Two hemispherical pitholes of radius 2 m are dug from two places and the mud is spread over the remaining part of the field. The rise in the level of the field is
- (a)  $\frac{8}{93}$  m (b)  $\frac{16}{93}$  m  
(c)  $\frac{13}{93}$  m (d)  $\frac{23}{93}$  m
61. Two circles of radii 4 cm and 9 cm respectively touch each other externally at a point and a common tangent touches them at the points P and Q respectively. They the area of a square with one side PQ, is
- (a) 97 sq. cm (b) 194 sq. cm  
(c) 72 sq. cm (d) 144 sq. cm
62. The average age of four boys, five years ago was 9 years. On including a new boy, the present average age of all the five is 15 years. The present age of the new boy is
- (a) 14 years (b) 6 years  
(c) 15 years (d) 19 years
63. The cost of a piece of diamond varies with the square of its weight. A diamond of ₹5,184 value is cut into 3 pieces whose weights are in the ratio 1 : 2 : 3. Find the loss involved in the cutting.
- (a) ₹3,068 (b) ₹3,088  
(c) ₹3,175 (d) ₹3,168
64. Pipe A alone can fill a tank in 8 hours. Pipe B alone can fill it in 6 hours. If both the pipes are opened and after 2 hours pipe A is closed, then the other pipe will fill the tank in
- (a) 6 hours (b)  $3\frac{1}{2}$  hours  
(c) 4 hours (d)  $2\frac{1}{2}$  hours
65. The population of a town is 15000. If the number of males increases by 8% and that of females by 10%, then the population would increase to 16300. Find the number of females in the town.
- (a) 4000 (b) 6000 (c) 3000 (d) 5000

66. If ₹5,000 becomes ₹5,700 in a year's time, what will ₹7,000 become at the end of 5 years at the same rate of simple interest?
- (a) ₹10,500 (b) ₹11,900  
(c) ₹12,700 (d) ₹7,700
67. A thief is noticed by a policeman from a distance of 200 m. The thief starts running and the policeman chases him. The thief and the policeman run at the rate of 10 km and 11 km per hour respectively. The distance (in metres) between them after 6 minutes is
- (a) 190 (b) 200 (c) 100 (d) 150
68. 'A' sells an article to 'B' at a profit of 20% and 'B' sells it to 'C' at a profit of 25%. If 'C' pays ₹1200, the cost price of the article originally (in ₹) is
- (a) 700 (b) 600 (c) 1,000 (d) 800
69. A tree is broken by the wind. If the top of the tree struck the ground at an angle of  $30^\circ$  and at a distance of 30 m from the root, then the height of the tree is
- (a)  $25\sqrt{3}$  m (b)  $30\sqrt{3}$  m  
(c)  $15\sqrt{3}$  m (d)  $20\sqrt{3}$  m
70. A farmer divides his herd of  $n$  cows among his four sons, so that the first son gets one-half the herd, the second one-fourth, the third son  $\frac{1}{5}$  and the fourth son 7 cows. Then the value of  $n$  is
- (a) 240 (b) 100 (c) 180 (d) 140

**DIRECTIONS (Qs. 71-75):** The graph shows Income and Expenditure of a company. Study the graph and answer the questions.

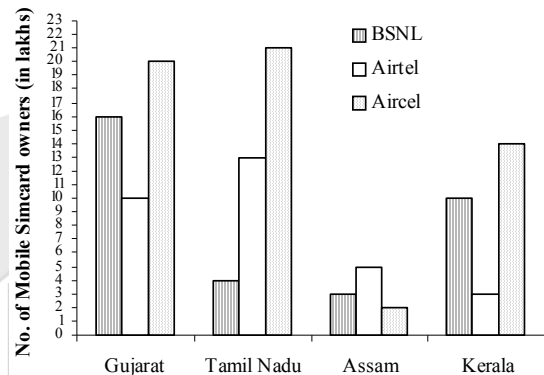


71. The expenditure from 2002 to 2003 increased by
- (a)  $33\frac{1}{3}\%$  (b) 40% (c) 10% (d) 20%
72. The income in 2002 was equal to the expenditure in the year
- (a) 2003 (b) 2004 (c) 2000 (d) 2001
73. The profit was maximum in the year
- (a) 2003 (b) 2004  
(c) 2001 (d) 2002

74. The difference in profit between 2001 and 2002 is  
(a) ₹25 lakhs (b) No difference  
(c) ₹10 lakhs (d) ₹20 lakhs
75. The number of years in which the income exceeds the average income is  
(a) three (b) four (c) one (d) two
76. A three-digit number  $4a3$  is added to another three-digit number  $984$  to give the four digit number  $13b7$  which is divisible by 11. Then the value of  $(a + b)$  is:  
(a) 11 (b) 12 (c) 9 (d) 10
77. A boy standing in the middle of a field, observes a flying bird in the north at an angle of elevation of  $30^\circ$  and after 2 minutes, he observes the same bird in the south at an angle of elevation of  $60^\circ$ . If the bird flies all along in a straight line at a height of  $50\sqrt{3}$  m, then its speed in km/h is:  
(a) 4.5 (b) 3 (c) 9 (d) 6
78. A jar contains a mixture of two liquids A and B in the ratio 4 : 1. When 10 litre of the mixture is replaced with liquid B, the ratio becomes 2 : 3. The volume of liquid A present in the jar earlier was:  
(a) 20lt (b) 10lt (c) 16lt (d) 15lt
79. The average temperature of Monday, Tuesday and Wednesday was  $30^\circ\text{C}$  and that of Tuesday, Wednesday and Thursday was  $33^\circ\text{C}$ . If the temperature on Monday was  $32^\circ\text{C}$ , then the temperature on Thursday was:  
(a)  $33^\circ\text{C}$  (b)  $30^\circ\text{C}$  (c)  $41^\circ\text{C}$  (d)  $32^\circ\text{C}$
80. A watch is sold at a profit of 30%. Had it been sold for ₹ 80 less, there would have been a loss of 10%. What is the cost price of rupees?  
(a) 150 (b) 200 (c) 400 (d) 800
81. A train overtakes two persons who are walking in the same direction in which the train is running, at the rate of 2 kmph and 4 kmph and passes them completely in 9 and 10 seconds respectively. The length of the train (in metres):  
(a) 72 (b) 45 (c) 54 (d) 50
82. If 12 men or 18 women can reap a field in 14 days, then working at the same rate, 8 men and 16 women can reap the same field in:  
(a) 9 days (b) 5 days  
(c) 7 days (d) 8 days
83. By selling 9 articles for a rupee, a man incurred a loss of 4%. To make a gain of 44%, the number of articles to be sold for a rupee is:  
(a) 5 (b) 3 (c) 4 (d) 6

84. Prabhat took a certain amount as a loan from a bank at the rate of 8% p.a. simple interest and gave the same amount to Ashish as a loan at the rate of 12% p.a. If at the end of 12 years, he made a profit of ₹ 96 in the deal, then the original amount was:  
(a) ₹ 3356 (b) ₹ 1000  
(c) ₹ 2000 (d) ₹ 3000

**DIRECTIONS (Qs. 85-89):** The number of mobile simcards in 4 states are given in multiple bar diagrams. Study the diagram and answer the question 85 to 89.



85. In Assam, the ratio of Aircell simcard and Airtel simcard sold is:  
(a) 3 : 2 (b) 2 : 5 (c) 5 : 2 (d) 2 : 3
86. In which state are there the largest number of owners of Airtel simcard?  
(a) Tamil Nadu (b) Gujarat  
(c) Kerala (d) Assam
87. Average of simcard sold in the four states in lakhs is  
(a) 30.25 (b) 40.5 (c) 35 (d) 33.75
88. The range of BSNL simcard sold in the 4 states in lakhs is:  
(a) 12 (b) 15 (c) 14 (d) 13
89. Of all the simcards sold in all the four states, the number of simcards sold in Gujarat is (approx)  
(a) 40% (b) 38% (c) 35% (d) 42%
90. A and B are partners in a business. A contributes  $\frac{1}{4}$  of the capital for 15 months and B received  $\frac{2}{3}$  of the profit. Find for how long B's money was used?  
(a) 6 months (b) 8 months  
(c) 10 months (d) 12 months

91. Two men A and B started a job in which A was thrice as good as B and therefore took 60 days less than B to finish the job. How many days will they take to finish the job, if they start working together?
- (a) 15 days  
(b) 20 days  
(c)  $22\frac{1}{2}$  days  
(d) 25 days
92. A rectangular garden is 100 m  $\times$  80 m. There is a path along the garden and just outside it. Width of path is 10 m. The area of the path is
- (a) 1900 sq m (b) 2400 sq m  
(c) 3660 sq m (d) 4000 sq m
93. A dealer offered a machine for sale for ₹27,500 but even if he had charged 10% less, he would have made a profit of 10%. The actual cost of the machine is
- (a) ₹22,000 (b) ₹24,250  
(c) ₹22,500 (d) ₹22,275
94. An employer reduces the number of employees in the ratio 8 : 5 and increases their wages in the ratio 7 : 9. As a result, the overall wages bill is
- (a) Increased in the ratio 56 : 69  
(b) Decreased in the ratio 56 : 45  
(c) Increased in the ratio 13 : 17  
(d) Decreased in the ratio 17 : 13
95. The average age of a jury of 5 is 40. If a member aged 35 resigns and a man aged 25 becomes a member, then the average age of the new jury is
- (a) 30 (b) 38 (c) 40 (d) 42
96. With average speed of 40 km/hour, a train reaches its destination in time. If it goes with an average speed of 35 km/hour, it is late by 15 minutes. The total journey is
- (a) 30km (b) 40km (c) 70km (d) 80km
97. A man makes a profit of 20% on the sale by selling 20 articles for ₹1. The number of articles he bought by ₹1cs
- (a) 20 (b) 24 (c) 25 (d) 30
98. The number of seats in an auditorium is increased by 25%. The price of a ticket is also increased by 12%. Then the increase in revenue collection will be
- (a) 40% (b) 35% (c) 45% (d) 48%
99. A ship is moving at a speed of 30 km/hr. To know the depth of the ocean beneath it, it sends a radiowave which travels at a speed 200 m/s. The ship receives the signal after it has moved 500 m. The depth of the ocean is
- (a) 6km (b) 12km (c)  $\sqrt{6}$  m (d) 8 km
100. A person takes a loan of ₹10,000 partly from a bank at 8% p.a. and remaining from another bank at 10% p.a. He pays a total interest of ₹950 per annum. Amount of loan taken from the first bank (in ₹) is
- (a) 2500 (b) 5200 (c) 2050 (d) 5020

Time : 2 Hours

**ENGLISH LANGUAGE AND COMPREHENSION**

Max. Marks : 200

**DIRECTIONS (Qs. 1-10):** In the following questions, out of the four alternatives choose the one which can be substituted for the given words/sentences.

1. Building in which dead bodies are kept for a time
- (a) Monastery (b) Mortuary  
(c) Crematorium (d) Sanatorium
2. A building in which aircraft are parked
- (a) Hangar (b) Hanger  
(c) Tarmac (d) Tower
3. A public waiting room as in a hotel or air terminal
- (a) Arcade (b) Lounge  
(c) Enclave (d) Portico
4. To walk slowly, wasting time
- (a) Stammer (b) Stride  
(c) Dawdle (d) Plod
5. A place where birds are kept
- (a) Aquarium (b) Nest  
(c) Aviary (d) Sanctuary
6. Belief that God is in everything and that everything is God
- (a) Atheism (b) Pantheism  
(c) Skepticism (d) Animism
7. Writing or drawings scribbled, scratched, or sprayed illegally on a wall or other surface in a public place.
- (a) Graffiti (b) Cartoon  
(c) Sketch (d) Caricature
8. A fictitious name adopted by authors, poets etc.
- (a) Pseudonym (b) Homonym  
(c) Acronym (d) Synonym

9. Of very bad morals; characterized by debasement or degeneration.  
(a) Desultory (b) Dilapidated  
(c) Depraved (d) Dilatory
10. The Japanese art of folding paper into decorative shapes and figures.  
(a) Origami (b) Bonsai  
(c) Ikebana (d) Kimono

**DIRECTIONS (Qs. 11-15):** In the following questions, four words are given out of which one word is incorrectly spelt. Select the incorrectly spelt word.

11. (a) Essential (b) Anihilation  
(c) Emission (d) Erroneous
12. (a) Ulterior (b) Theoretical  
(c) Vermilion (d) Amileorate
13. (a) Curriculum (b) Couragious  
(c) Collaborate (d) Cylinder
14. (a) Deficiency (b) Dictionary  
(c) Diaphragm (d) Diabeties
15. (a) Advertise (b) Addiction  
(c) Anniversory (d) Amateur

**DIRECTIONS (Qs. 16-20):** In the following question, out of the four alternatives select the alternative which best expresses the meaning of the idiom/phrase.

16. No dice  
(a) To say no to deceive someone  
(b) To refuse to be a part of a game show  
(c) Certainly not possible  
(d) No drama
17. White elephant  
(a) To discuss something honestly and directly  
(b) An expensive item that is troublesome or useless  
(c) To be very involved in something that you think is important  
(d) To have a special love for faunas
18. Round the twist  
(a) Tail to achieve a result  
(b) Distraction from the real issues  
(c) Go crazy  
(d) To ruin your pleasure or plans
19. Go round the houses  
(a) Criticize or scold severely  
(b) Unnecessarily long time to get to the point  
(c) To get utterly destroyed  
(d) Be ready for something
20. Kick up a row  
(a) To serve in an exemplary manner  
(b) To be popular  
(c) To take a right decision  
(d) To start a fight

**DIRECTIONS (Qs. 21-30):** In the following questions parts of the sentences have errors and some are correct. Find out which part of a sentence has an error. If a sentence is free from error, your answer is (d) i.e., 'No error'.

21. We have spent most of the profits(a)/ that we earn last year (b)/ on purchasing new computers. (c)/ No error (d)
22. His continually defending his stand (a)/ on the issue has risen (b)/ doubts in the mind of the jury (c)/. No error (d)
23. In these statements that are followed by two conclusions, (a)/ the relationship between different elements (b)/ are shown in the statements (c)/. No error (d)
24. We have inherited tradition of secrecy (a)/about the budget from Britain where the system (b)/ has been strongly attacked by eminent economists (c)/. No error (d)
25. Eleven years after it first put forward in the Parliament, (a)/ the Rajya Sabha has finally adopted (b)/ a goods and services tax (c)/. No error (d)
26. I asked her how could she go out with Ram (a)/ to watch a movie (b)/ if it started raining yesterday (c)/. No error (d)
27. James sat there in stunned silence (a)/as however persuasive she was (b)/she just can't convince him (c)/. No error (d)
28. Chetan Bhagat must be a good writer (a)/ but not a good speaker, as not any of his lectures (b)/ have been published (c)/. No error (d)
29. Ashkay Shahrukh has bought not only this Rolls Royce (a)/ but also he brought (b)/ a few Lamborghinis in this city (c)/. No error (d)
30. Being fairly well-built myself, (a)/ without second thought I just reached down (b)/ and lifted my Dad who was slept in bed (c)/. No error (d)

**DIRECTIONS (Qs. 31-40):** In these questions some of the sentences have errors and some have none. Find out which part of a sentence has an error and indicate it corresponding to the appropriate letter. If there is no error, indicate corresponding to the last option.

31. In long distance running, while achievements like running a marathon (A) / or a half is widely celebrated, the simple act of getting up (B) / every morning and stepping in is rarely appreciated. (C) / No Error (D)  
(a) A (b) B (c) C (d) D

32. Gangaramaya Temple, one of the Colombo's oldest Buddhist temples (A) / and a popular tourist destination leave visitors enchanted (B) / with its huge golden Buddha statue. (C) / No Error (D)  
(a) A (b) B (c) C (d) D
33. The garden area outside the studio is littered with (A) / plastic bottles and wires, waiting to be transformed (B) / into something artistic, no doubt. (C) / No Error (D)  
(a) A (b) B (c) C (d) D
34. Whether you prefer a physical exchange for (A) / cash and a digital process, there are myriad (B) / ways to get money using gold. (C) / No Error (D)  
(a) A (b) B (c) C (d) D
35. Sports persons are often unfairly judged on what they do (A) / for few minutes on the event day, ignoring the hours of (B) / drudgery of training that consumes their lives. (C) No error (D)  
(a) A (b) B (c) C (d) D
36. He went to England to work as a doctor (A) / but returned (B) / as he could not endure the weather there (C) / No error (D)  
(a) A (b) B (c) C (d) D
37. These are (A) / his (B) / conclusion remarks. (C) / No error (D)  
(a) A (b) B (c) C (d) D
38. The shopkeeper offered either to exchange (A) / the goods (B) / or refund the money. (C) / No error (D)  
(a) A (b) B (c) C (d) D
39. He did not know (A) / as much as (B) / he claimed he knew. (C) / No error (D)  
(a) A (b) B (c) C (d) D
40. India are placed fourth in the medals tally with nine gold, eight silver (A) / and seven bronze medals for a total of 24, making (B) / this their best performance in the International Shooting Sport. (C) / No Error (D)  
(a) A (b) B (c) C (d) D
41. He would have written this essay in time.  
(a) The essay was written on time  
(b) This essay would have been written by him in time  
(c) The essay was written by him in time.  
(d) He wrote the essay on time
42. Can we send the parcel tomorrow?  
(a) Can be the parcel sent by us tomorrow?  
(b) Can we be sent by the parcel tomorrow?  
(c) Can the parcel be sent by us tomorrow?  
(d) Can the parcel sent by us tomorrow?
43. He should be polite  
(a) He must be polite  
(b) To be polite is needed by him  
(c) He needs to be polite  
(d) None of the these
44. They are laughing at you.  
(a) You are being laughed by them.  
(b) You are being laughed at by them.  
(c) You are laughed at by them.  
(d) You are being laughed by us.
45. The fire engulfed the building.  
(a) The building was engulfed in the fire.  
(b) The building was engulfed by the fire.  
(c) The building was engulfed the fire.  
(d) The building was engulfed to the fire.
46. You have to choose a dish.  
(a) A dish have been chosen by you.  
(b) A dish has to be chosen by you.  
(c) A dish has been chosen by you.  
(d) A dish has to choose by you.
47. I am to do it.  
(a) It is to be done by me.  
(b) It is to do by me.  
(c) It should be done by me.  
(d) It has to be done by me.
48. Paint the windows.  
(a) Windows should be painted  
(b) Let the windows be painted  
(c) Let be the windows painted  
(d) Windows are to be paint.
49. Please shut the door and go to sleep.  
(a) The door is to be shut and you are to go to sleep.  
(b) Let the door be shut and you be asleep.  
(c) You are requested to shut the door and go to sleep.  
(d) The door is to be shut and you are requested to sleep.
50. Prepare yourself for the worst.  
(a) You yourself be prepared for the worst  
(b) The worst should be prepared by yourself.  
(c) Be prepared for the worst  
(d) For the worst preparation should be made by you.

**DIRECTIONS (Qs. 41-60):** The sentences have been given in Active/Passive voice. From the given alternatives, choose the one which best expresses the given sentence in Passive/Active voice and mark it in the Answer:

51. Open the door.  
 (a) The door must be opened.  
 (b) The door will be opened.  
 (c) The door is opened.  
 (d) Let the door be opened.
52. I did not trust anybody.  
 (a) Nobody was trusted by me.  
 (b) Anybody had been trusted by me.  
 (c) Nobody would be trusted by me.  
 (d) Nobody has been trusted by me.
53. Did he remember the date and time?  
 (a) Are the date and time remembered by him?  
 (b) Was he remembering the date and time?  
 (c) Were the date and time remembered by him?  
 (d) Did the date and time being remembered by him?
54. The boys were digging a hole in the ground.  
 (a) A hole had been dug in the ground by the boys.  
 (b) In the ground, the boys dug a hole.  
 (c) A hole in the ground has been dug by the boys.  
 (d) A hole was being dug by the boys in the ground.
55. We must now deal with these problems.  
 (a) These problems must now be dealt with by us.  
 (b) These problems must now be dealing with by us.  
 (c) These problems must now deal with by us.  
 (d) These problems are to be dealt with by us.
56. The audience loudly cheered the leader's speech.  
 (a) The leader's speech was loudly cheered by the audience.  
 (b) The leader's speech is loudly cheered by the audience.  
 (c) The audience loudly cheered the leader for his speech.  
 (d) The speech of the leader was loudly cheered by the audience.
57. Someone is following us.  
 (a) We are followed by someone.  
 (b) We are being followed by someone.  
 (c) We were being followed by someone.  
 (d) We had been followed by someone.
58. You should not offer meat to vegetarians.  
 (a) Vegetarians should not be offered meat.  
 (b) Meat should be offered to not-vegetarians.  
 (c) Vegetarians should not offer meat.  
 (d) You should offer no meat to non-vegetarians.
59. I was recommended another lawyer.  
 (a) Somebody recommended another lawyer.  
 (b) Somebody recommended me to another lawyer.  
 (c) Somebody recommended me another lawyer.  
 (d) Somebody recommends me another lawyer.
60. Many a person has been saved from the man-eaters by these hunters.  
 (a) These hunters will save many a person from the man-eaters.  
 (b) These hunters save many a person from the man-eaters.  
 (c) These hunters saved many a person from the man-eaters.  
 (d) These hunters have saved many a person from the man-eaters.

**DIRECTIONS (Qs. 61-70):** In the following questions a part of the sentence is bold. Below are given alternatives to the bold part at (a), (b), (c) which may improve the sentence. Choose the correct alternative. In case 'No improvement' is needed your answer is (d).

61. He has **not and can never** be in the good books of his employer, because he lacks honesty.  
 (a) has not and can never been  
 (b) has not been and can never be  
 (c) has not and cannot be  
 (d) No improvement
62. Several of our projects **have delayed because** the equipment we ordered was delivered late.  
 (a) have been delayed (b) has to be delayed  
 (c) are delaying (d) No improvement
63. Each Tuesday evening **we visit the farmers** in the area and held a meeting to discuss the problems they faced.  
 (a) we were visiting the farmers  
 (b) we visited the farmers  
 (c) we will visit the farmers  
 (d) No improvement
64. Govind understood the wisdom behind the sage's words and **work even harder** from that day on.  
 (a) works even harder  
 (b) worked harder even  
 (c) worked even harder  
 (d) No improvement
65. **I beg** you to keep quiet.  
 (a) beg of (b) beg from  
 (c) beg for (d) No improvement

66. There is nothing **quite miserable** than domestic violence in modern and educated India.  
(a) as miserable (b) very miserable  
(c) more miserable (d) No improvement
67. The fact finding committee has so far not made any **advancement** in Asharam's rape case.  
(a) progress (b) improvement  
(c) stride (d) No improvement
68. The angry boys **were** arguing with the Principal since morning.  
(a) have been (b) was  
(c) has been (d) No improvement
69. It is high time that the toppers **prepared** hard for the exams.  
(a) had prepared (b) would prepare  
(c) have prepared (d) No improvement
70. It is **long since** I saw you last.  
(a) long ago (b) long time  
(c) long before (d) No improvement

**DIRECTIONS (Qs. 71-75):** In the following questions, sentences are given with blanks to be filled in with an appropriate and suitable word. Four alternatives are suggested for each question. Choose the correct alternative out of the four alternatives.

71. Though impulsive in her personal life, Edna was \_\_\_\_\_ in her work, producing several pages of complicated rhyme in a day.  
(a) humble (b) dispirited  
(c) organized (d) sanguine
72. It is very difficult for him to give up smoking as he is an \_\_\_\_\_ smoker.  
(a) indifferent (b) inveterate  
(c) insensitive (d) innate
73. At the time of his \_\_\_\_\_ to the Mughal throne, Akbar's empire encompassed Kabul, Kandahar, Delhi and parts of Punjab.  
(a) descent (b) access  
(c) assent (d) ascent
74. In Homer's work, Achilles is the Paragon of bravery; Odysseus \_\_\_\_\_ the shrewd man.  
(a) abhors (b) exemplifies  
(c) reinvents (d) eschews
75. The boy was \_\_\_\_\_ of cheating in the examination.  
(a) condemned (b) accused  
(c) charged (d) caught

**DIRECTIONS (Qs. 76-80):** In the following questions, out of the four alternatives, choose the one which best expresses the meaning of the given word.

76. SPURIOUS  
(a) Particular (b) Fake  
(c) Fictional (d) True
77. LATENT  
(a) Obstruct (b) Confuse  
(c) Hidden (d) Expose
78. GLOSSARY  
(a) List of employees  
(b) Brief explanation  
(c) Right of government  
(d) Catalogues of books
79. REPUDIATE  
(a) Disown (b) Protest  
(c) Going backward (d) Assign work
80. ZEALOT  
(a) Enthusiastic (b) Fanatic  
(c) Glutton (d) Urbane

**DIRECTIONS (Qs. 81-85):** In the following question choose the word opposite in meaning to the given word.

81. DISCRIMINATION  
(a) Motivation (b) Replenishment  
(c) Bias (d) Equality
82. ENDANGERED  
(a) Abundant (b) Blissful  
(c) Protected (d) Livening up
83. APATHY  
(a) Shallow (b) Native  
(c) Concern (d) Indifference
84. CONTEMPT  
(a) Scorn (b) Regard  
(c) Peace (d) Cheer
85. FALLACY  
(a) Delusion (b) Deception  
(c) Affection (d) Honesty

**DIRECTIONS (Qs. 86 - 90):** In the following questions a part of the sentence is underlined. Below are given alternatives to the underlined part at (a), (b), (c) which may improve the sentence. Choose the correct alternative. In case 'No improvement' is needed your answer is (d).

86. Walk carefully lest you do not fall.  
(a) lest you fall  
(b) lest you should not fall  
(c) lest you might not fall  
(d) No improvement
87. Please tell the story in a nutshell.  
(a) in the nutshell (b) in nutshells  
(c) in nutshell (d) No improvement

88. My heart goes out to the families of those who died in the accident.  
(a) weeps for something lost  
(b) for feels sympathy  
(c) for feels no sympathy  
(d) of forget matters
89. Usain Bolt and Michael Phelps, they both knew they will reach a point when they have to call it a day.  
(a) to conclude engagement  
(b) to initiate proceedings  
(c) to work through the day  
(d) None of these
90. My father came to read out his new jokes, but it all fell flat.  
(a) were not paid attention to  
(b) had no effect  
(c) became completely unnerved  
(d) faced total failure

**DIRECTIONS (Qs. 91-105):** In each question, a part of sentence is printed in bold. Below each sentence, some phrases are given which can substitute the bold part of the sentence. Find out the phrase which can correctly substitute that part of the sentence. If the sentence is correct as it is, the answer is 'No correction required' or 'No improvement'.

91. The government has no choice **than to curtail** the subsidies in order to contain the increasing fiscal deficit  
(a) but to curtail  
(b) only to curtail  
(c) No improvement  
(d) other than to curtailing
92. There is no **place** in the bus, it is already over crowded  
(a) vacancy (b) room  
(c) berth (d) No improvement
93. If only I had known about your arrival I **might have** come to the station to receive you.  
(a) should have (b) would have  
(c) could have (d) No improvement
94. If he does not succeed this year, he **would give** examination again next year.  
(a) would be giving (b) will be taking  
(c) would take (d) No improvement
95. Unless the Pakistani government **does not demolish** the terrorists training camp there can be no peace in the region  
(a) demolishes (b) Will not demolish  
(c) do not demolish (d) No improvement
96. A new and stronger Indian society is growing **at top of the deep trenches** left by centuries of colonial repression

- (a) on top of the deep trenches  
(b) at the top of the deep trench  
(c) at to the top of the deep trench  
(d) No improvement
97. Germany has more neighbours **than all European states**.  
(a) rather than other European states  
(b) rather than all European states  
(c) than any other European state  
(d) No improvement
98. Mary met with an accident. She didn't just twist her leg, she **has broken it**.  
(a) had broken it (b) breaks it  
(c) broke it too (d) No improvement
99. If you are absent for a week, you have to **catch with** the work when you return.  
(a) catch up with (b) catch on with  
(c) catch in with (d) No improvement
100. He was urgently in need **to get his eye operation**.  
(a) of an eye operation  
(b) for operation on eye  
(c) for eye to be operated  
(d) No improvement
101. Having finished the book, **it was put away by him**.  
(a) he put it away  
(b) it was being put away by him  
(c) it was putting away by him  
(d) No improvement
102. After a few minutes the unconscious boxer began to come **out**.  
(a) up (b) round  
(c) on (d) No improvement
103. She insisted **to go** there, though her husband cautioned her on it.  
(a) on going (b) upon going  
(c) going (d) No improvement
104. I started **lending** books from the library.  
(a) borrowing (b) lending of  
(c) loan of (d) No improvement
105. You will come to my party tomorrow, **will you?**  
(a) isn't it? (b) will not you?  
(c) won't you? (d) No improvement

**DIRECTIONS (Qs. 106-110):** In the following questions, the 1st sentences of the passage are numbered 1 and the rest of the passage is split into four parts and named P, Q, R and S. These four parts are not given in their proper order. Read the sentence and find out which of the four combinations is correct. Then find the correct answer.

106. When you  
(P) which one is closest in meaning  
(Q) read the four sentences in your text book and decide  
(R) to the statement you have heard  
(S) hear a statement  
(a) SRPQ (b) SQPR  
(c) SPQR (d) QPSR
107. Those who  
(P) expect others  
(Q) cannot treat  
(R) should not  
(S) others well  
(a) QSRP (b) QPRS  
(c) RPQS (d) SRPQ
108. When I reached my office  
(P) to get home early as I had promised  
(Q) I phoned my mother  
(R) that I wouldn't be able  
(S) to tell her  
(a) PQRS (b) RPQS  
(c) QSRP (d) SQPR
109. According to reports  
(P) were still trapped inside  
(Q) bogies of the express  
(R) the wrecked  
(S) some of the passengers  
(a) PRQS (b) SPRQ  
(c) PSQR (d) RSQP
110. When he  
(P) did not know  
(Q) he was nervous and  
(R) heard the hue and cry at midnight  
(S) what to do  
(a) PQRS (b) QSPR  
(c) RQPS (d) SQPR

**DIRECTIONS (Qs. 111-125):** *In the following questions the 1st and last sentence of the passage are numbered as 51 and 56 respectively and the rest of the passage is split into four parts and numbered P, Q, R and S. There four parts are not arranged correctly. Read the sentences and find out which of the four combinations is correct.*

111. S1. Anything you do that gives you some form of regular exercise will benefit your heart.  
S6. But do not push too hard; tune into the warning signals from you body.  
P: In fact, never choose an activity just because it is good for you.  
Q: By all means work up a good sweat, and even a thirst perhaps.

- R: If you can combine this with enjoyment, then so much the better.  
S: You will soon get bored of it.  
(a) PRSQ (b) PSRQ  
(c) QRPS (d) RPSQ
112. S1. There is nothing strange in the fact that so many foreign students should wish to learn English.  
S6. This key will open to him whatever is valuable in the literature of the world.  
P: If any valuable book is written in another language, an English translation of it is sure to be speedily published.  
Q: Anyone who masters the English tongue acquires a key.  
R: Most books found to be generally useful are written in English.  
S: The English speaking people want no monopoly of knowledge.  
(a) SQRP (b) SRPQ  
(c) RSPQ (d) RPSQ
113. S1. In 1857, fighting broke out all over the county.  
S6. The Rani's troops fought back bravely.  
P: Everywhere the people rose in rebellion.  
Q: In March 1858 British troops attacked the fort at Janus.  
R: Thousands of people were killed on both sides.  
S: The British fought back.  
(a) PSRQ (b) QSPR  
(c) RPSQ (d) SQPR
114. S1. There has been an alarming increase in the number of vehicles on Delhi roads.  
S6. Should the pedestrians' case be allowed to go by default ?  
P: The pedestrian has, however, been the worst sufferer.  
Q: There is no place where the pedestrian can move freely without the fear of traffic.  
R: Zebra crossings like the pavements are no longer safe.  
S: This has further aggravated the problem of pollution in the city.  
(a) PQRS (b) SPRQ  
(c) SQRP (d) SRPQ
115. S1. Several sub-cities have been planned around the capital.  
S6. Hopefully the housing problem will not be as acute as at present after these sub-cities are built.  
P: Dwarka is the first among them.  
Q: They are expected to alleviated the problem of housing.

- R: It is coming up in the south-west of the capital.  
S: It will cater to one million people when completed.  
(a) PQRS (b) PRSQ  
(c) QPRS (d) QRSP
116. S1. Music, like literature, is an art that deals with sound.  
S6. They refer to specific things other than themselves such as objects and ideas.  
P: Literature makes use of words which are sounds.  
Q: They also have meanings.  
R: And the writer must be concerned with the effect produced by the sounds he uses.  
S: But words are not only sounds.  
(a) PRSQ (b) PSQR  
(c) RPSQ (d) SRPQ
117. S1. The domestic cat is a contradiction in itself.  
S6. Hence it has won such a reputation for obedience and loyalty.  
P: But the adult per dog also sees its human family as the dominant members of the pack.  
Q: Nursed in kittenhood it develops extraordinary intimacy with mankind.  
R: The dog, like the pet cat, sees its owners as pseudo-parents.  
S: At the same time, however, the cat continues to retain its independence.  
(a) QSPR (b) QSRP  
(c) SQRP (d) SQRQ
118. S1. Gandhi's first political fast was made soon after his return from Africa.  
S6. He did not fast against the mill owners, but in order to strengthen the determination of the strikers.  
P: He had also received help from this man's sister.  
Q: This was when the poor labourers of the cotton mills of Ahmadabad were on strike.  
R: He was a friend of the largest mill-owner.  
S: Gandhi had made the strikers promise to remain on strike until the owners agreed to accept the decision of an arbitrator.  
(a) PQSR (b) QSRP  
(c) RPQS (d) SRPQ
119. S1. There was once a Persian King called Shahryar who had a beautiful wife.  
S6: After one day's marriage he would cut off her head and marry again.  
P: When the King discovered this he killed her.  
Q: He gave orders that he was to be provided with a new wife every day.
- R: He loved her very much, but she was a wicked woman.  
S: He decided that all women were wicked and that he would punish them.  
(a) PQRS (b) QSPR  
(c) RPSQ (d) SPRQ
120. S1. The future beckons to us.  
S6. There is no resting for anyone of us till we redeem our pledge in full.  
P: In fact we have hard work ahead.  
Q: Where do we go and what shall be our endeavour?  
R: We shall also have to fight and end poverty, ignorance and disease.  
S: It will be to bring freedom and opportunity to the common man.  
(a) PSRQ (b) QPSR  
(c) QSRP (d) SRPQ
121. S1. In ancient Indian history the city of Ujjain was quite famous.  
S6. So one can see what a great love all who care for India must feel for the anciently of Ujjain.  
P: Here lived at one time the poet Kalidasa.  
Q: He was a famous learned astronomer.  
R: And here also worked and visited Raja Jaysingh of Jaipur.  
S: It was always renowned as a seat of learning.  
(a) PSRQ (b) QSRP  
(c) SPRQ (d) SRPQ
122. S1. He took two cigarettes from my case.  
S6. Then he continued to draw on it.  
P: But when the fit of coughing was over, he replaced it between his lips.  
Q: He lit one of them and placed it between the lips.  
R: Then with a feeble hand he removed the cigarette.  
S: Slowly he took a pull at it and coughed violently.  
(a) PSQR (b) QPSR  
(c) QSRP (d) SRPQ
123. S1. In the middle of one side of the square sits the Chairman of the committee, the most important person in the room.  
S6. From the moment its members meet, it begins to have a sort meet, it begins to have a sort nebulous life of its own.  
P: For a committee is not just a mere collection of individuals.  
Q: On him rests much of the responsibility for the success or failure of the committee.

- R: While this is happening we have an opportunity to get the 'feel' of this committee.
- S: As the meeting opens, he runs briskly through a number of formalities.
- (a) PQRS (b) QSRP  
(c) RSQP (d) SQPR
124. S1. This year many States have been badly affected by the drought situation prevailing in the country.  
S6. Either way, it seems the lot of the Indian farmer to be at the mercy of the elements.
- P: No better is the situation elsewhere, where floods have ravaged the standing crop.
- Q: Though some have been less affected, even these are facing an uphill task in managing the situation.
- R: Especially pitiable is the plight of the poor farmer who cannot afford a tubewell to irrigate his land.
- S: Here the predicament is more equitable, for everybody's land is similarly submerged under ten feet of water.
- (a) RSPQ (b) QRPS  
(c) PSRQ (d) PRQS
125. S1. The Bhagavad-Gita recognises the nature of man and the needs for man.  
S6. A man who does not harmonise them, is not truly human.
- P: All these three aspects constitute the nature of man.
- Q: It shows how the human being is a rational one, an ethical one and a spiritual one.
- R: More than all, it must be a spiritual experience.
- S: Nothing can give him fulfillment unless it satisfies his reason, his ethical conscience.
- (a) PSQR (b) PSRQ  
(c) QPSR (d) RSPQ
- 
- DIRECTIONS (Qs. 126- 145) :** A sentence has been given in Direct/Indirect form. Out of the four alternatives suggested, select the one which best expresses the same sentence in Indirect/Direct form.
- 
126. Pressed by his students, the Principal suddenly said I am in no way responsible for the quarrel.
- (a) Pressed by his students, the Principal suddenly said that he was in no way responsible for the quarrel.  
(b) Pressed by his students, the Principal suddenly told that he was in no way responsible for the quarrel.
- (c) The Principal suddenly said he was in no way responsible for the quarrel, pressed by his students.  
(d) Pressed by his students, the Principal suddenly said that he is in no way responsible for the quarrel.
127. Deepak said to Mona, "You are punctual".
- (a) Deepak told Mona that she is punctual.  
(b) Deepak told Mona that she was punctual.  
(c) Deepak said to Mona that she was punctual.  
(d) Deepak told that Mona was punctual.
128. I said to him, "Let us go out for a walk."
- (a) I proposed to him to go out for a walk.  
(b) I proposed to him that let's go out for a walk.  
(c) I proposed him that we should go out for a walk.  
(d) I proposed to him that we should go out for a walk.
129. I said to the villagers, "Let's help the injured men".
- (a) I suggested to the villagers we should help the injured men.  
(b) I suggested to the villagers that we should help the injured men.  
(c) I suggested to the villagers that the injured men should be helped.  
(d) I suggested the villagers that we should help the injured men.
130. Ram said to his boss, "Let me go home."
- (a) Ram requested his boss to allow him to go home.  
(b) Ram requested to his boss to allow him to go home.  
(c) Ram requested his boss that he should go home.  
(d) Ram requested his boss to allow him for going home.
131. The officer said to the peon, "Let the man go in".
- (a) The officer ordered to the peon to allow the man to come in.  
(b) The officer ordered the peon to allow the man to come in.  
(c) The officer ordered the peon to let the man come in.  
(d) The officer ordered the peon to allow him to come in.
132. He said to Akash, "Don't move".
- (a) He told Akash not to move.  
(b) He told Akash don't move.  
(c) He said to Akash not to move.  
(d) He told Akash to not to move.
133. He said to me, "Don't go out".
- (a) He forbade me to not to go out.  
(b) He forbade me to go out.  
(c) He forbade me not to go out.  
(d) He forbade me to not go out.

134. He said, "I saw him here".
- He said that he saw him there.
  - He said that he has seen him there.
  - He said that he had seen him there.
  - He said he had seen him there.
135. He said, "I had gone to New Delhi".
- He said that he had gone to New Delhi.
  - He said that he had to go to New Delhi.
  - He said that he was gone to New Delhi.
  - He said that he had been going to New Delhi.
136. "Soni, why haven't you had your bath till now?" said her mother angrily.
- Soni's mother angrily asked her why she did not have her bath till then.
  - Soni's mother angrily asked her why didn't she have her bath till then.
  - Soni's mother angrily asked her why she hadn't had her bath till then.
  - Soni's mother angrily asked her that why she did not have her bath till then.
137. He said, "Robots are not human beings as they do not have the human intelligence."
- He said that Robots are not human beings as they do not have the human intelligence.
  - He said that Robots were not human beings as they did not have the human intelligence.
  - He told that Robots are not human beings as they did not have the human intelligence.
  - He announced that Robots are not human beings as they did not have the human intelligence.
138. She said, "Shall I have a happy married life?"
- She asked whether she will have a happy married life.
  - She asked will she have a happy married life.
  - She wondered if she would have a happy married life.
  - She wondered if she will have a happy married life.
139. The teacher said, "Why can't you come to school on time, Reema?"
- The teacher asked Reema why couldn't she come to school on time.
  - The teacher asked Reema why she couldn't come to school on time.
  - The teacher asked Reema why she can't come to school on time.
  - The teacher asked Reema why can't she come to school on time.
140. Sita said, "I have not seen my grandmother for a very long time."
- Sita said that she had not seen her grandmother for a very long time.
  - Sita said that she has not seen her grandmother for a very long time.
  - Sita said that she did not see her grandmother for a very long time.
  - Sita said that she did not see her grandmother for a very long time.
141. She said to me, "What can I do for you, dear?"
- She asked me what could she do for me.
  - She requested me to tell her what she could do.
  - She said to me what she could do for me.
  - She asked me affectionately what she could do for me.
142. He said to the lady, "Why are you weeping so bitterly?"
- He asked the lady why she had been weeping so bitterly.
  - He asked the lady why she weeping so bitterly.
  - He asked the lady why was she weeping so bitterly.
  - He said to the lady why she was weeping so bitterly.
143. She says, "Reema comes late".
- She said that Reema comes late.
  - She says that Reema comes late.
  - She says that Reema came late.
  - She says that Reema was coming late.
144. Pressed by his students, the Principal suddenly said I am in no way responsible for the quarrel.
- Pressed by his students, the Principal suddenly said that he was in no way responsible for the quarrel.
  - Pressed by his students, the Principal suddenly told that he was in no way responsible for the quarrel.
  - The Principal suddenly said he was in no way responsible for the quarrel, pressed by his students.
  - Pressed by his students, the Principal suddenly said that he is in no way responsible for the quarrel.
145. Deepak said to Mona, "You are punctual".
- Deepak told Mona that she is punctual.
  - Deepak told Mona that she was punctual.
  - Deepak said to Mona that she was punctual.
  - Deepak told that Mona was punctual.

**DIRECTIONS (Qs. 146-170):** In the following passages some of the words have been left out. Read the passages carefully and choose the correct answer to each question out of the four alternatives and fill in the blanks.

### PASSAGE - I

Superstition is a (146) in (147), which (148) be explained by the (149) of nature and also not by religion. For (150) a superstitious person believes that a black cat (151) his path will bring him (152). In Brazil, for instance, many people believe that a person can be harmed or even killed by (153) needles in a puppet which (154) the person to be harmed. This is called 'voodoo-magic'. People who do not believe in (155) things consider them superstition.

- |                   |                |
|-------------------|----------------|
| 146. (a) believer | (b) believes   |
| (c) belief        | (d) believe    |
| 147. (a) nothing  | (b) everything |
| (c) anything      | (d) something  |
| 148. (a) can      | (b) cannot     |
| (c) will          | (d) will not   |
| 149. (a) laws     | (b) means      |
| (c) methods       | (d) ways       |
| 150. (a) instance | (b) insistence |
| (c) instant       | (d) Insistent  |
| 151. (a) crosses  | (b) crossed    |
| (c) crossing      | (d) cross      |
| 152. (a) luck     | (b) properties |
| (c) fortune       | (d) misfortune |
| 153. (a) sticking | (b) pulling    |
| (c) pushing       | (d) drawing    |
| 154. (a) points   | (b) pointing   |
| (c) represents    | (d) represent  |
| 155. (a) this     | (b) just       |
| (c) such          | (d) thus       |

### PASSAGE-II

In Britain, the (156) is very varied. People never know (157) it will be like the next day. The summer is (158) than the winter but even (159) summer the average temperature (160) only 16o C. Sometimes the sun keeps (161) but at other times the sky is covered with clouds and it starts (162). In winter it is sometimes terribly (163), especially in the North to the country. The temperature (164) below 0o C and (165) is often snow and ice.

- |                   |             |
|-------------------|-------------|
| 156. (a) whether  | (b) weather |
| (c) atmosphere    | (d) climate |
| 157. (a) which    | (b) how     |
| (c) why           | (d) when    |
| 158. (a) stronger | (b) heavier |
| (c) warmer        | (d) colder  |
| 159. (a) in       | (b) at      |
| (c) into          | (d) through |
| 160. (a) has      | (b) was     |
| (c) were          | (d) is      |
| 161. (a) hiding   | (b) shining |
| (c) sunny         | (d) shines  |

- |                 |             |
|-----------------|-------------|
| 162. (a) rain   | (b) rains   |
| (c) raining     | (d) rained  |
| 163. (a) cooler | (b) cooled  |
| (c) chilled     | (d) chill   |
| 164. (a) falls  | (b) fell    |
| (c) fallen      | (d) falling |
| 165. (a) their  | (b) there   |
| (c) all         | (d) total   |

### PASSAGE - III

My friend rose (166) from his armchair and stood with his hands in the (167) of his dressing gown, looking over my shoulder. It was a bright, crisp February morning, and the snow of the day before still lay deep upon the ground, shimmering brightly in the wintry sun. Down the centre of Baker Street it (168) been ploughed into a brown crumbly band by the traffic, but at either side and on the heaped-up edges of the foot-paths it still lay as white as when it fell. The grey pavement had been cleaned and scraped, but was still dangerously (169) so that there were (170) passengers than usual. Indeed, from the direction of the Metropolitan Station no one was coming save the single gentleman whose eccentric conduct had drawn my attention.

- |                 |              |
|-----------------|--------------|
| 166. (a) lazy   | (b) lazily   |
| (c) laziness    | (d) lately   |
| 167. (a) sport  | (b) air      |
| (c) packets     | (d) pockets  |
| 168. (a) was    | (b) is       |
| (c) had         | (d) being    |
| 169. (a) sleepy | (b) slippery |
| (c) sleeping    | (d) slip     |
| 170. (a) lessen | (b) least    |
| (c) less        | (d) fewer    |

**DIRECTIONS (Qs. 171-200):** Read the following passages carefully and answers the questions given below:

### PASSAGE - I

The villager has customarily been very conservative in his attitude and approach. He is reluctant to change his traditional way of thinking and doing things. His attitude, in many aspects, is : 'homemade is best'. For instance, most cattle-farmers in the villages, prefer to feed their cows and buffaloes with a home-mix comprising local oilseeds like mustard or cottonseed, pulses, jiggery, salt, etc. It takes numerous visits, hard-convincing, dally trials and experience to convince the rural cattle farmer that compound feeds, scientifically formulated, improve the yields of milk, without any incremental costs. The age-old values and attitude towards caste, creed, woman, time and money take time to change. The villager has traditionally been a believer in the philosophy of 'karma' or 'fate'. He has found it more convenient to blame his economic destitution, poor living conditions

and straitened social status on 'bhagya', 'karma' or 'fate'. The security that the villagers find in the 'status quo', acts as a discentive to change and experiment. In the short run, many of these antiquated attitudes, value-system and outlooks are changing, due to improved levels of awareness and education. However, the rate of change is sluggish. Attitudes have fossilised over the centuries, do take time to change.

171. When will you call a person conservative in his attitude and approach?
  - (a) When he likes to try out every new idea before accepting it.
  - (b) When he sticks to old ways of thinking and doing.
  - (c) When he solves his problems through tried out methods.
  - (d) When he imputes motives to changeagents.
172. What does the phrase 'homemade is best' imply?
  - (a) The best should not be discarded.
  - (b) Change for the sake of change is not good.
  - (c) People should go in for swadeshi because it is home-made.
  - (d) Whatever is being practiced is better than what is new.
173. What is the best method to convince the average villager about the superiority of a new cattle-feed?
  - (a) Home visits
  - (b) Field demonstration
  - (c) Discussion
  - (d) Distribution of related literature
174. In the following question, four words are given out of which one is correctly spelt. Find the correctly spelt word.
  - (a) connaissance
  - (b) conoisiseur
  - (c) connoisseur
  - (d) connoisseur
175. According to the passage, what will change their conservative attitudes?
  - (a) Numerous visits
  - (b) Scientifically formulated compound seeds
  - (c) Status quo
  - (d) Education and awareness.

#### PASSAGE - II

Ultimately, we all have to decide for ourselves what constitutes failure, but the world is quite eager to give you a set of criteria if you let it. So I think it fair to say that by any conventional measure, a mere seven years after my graduation day, I had failed on an epic scale. An exceptionally short-lived marriage had imploded, and I was jobless, a lone parent, and as poor as it is possible to be in modern Britain, without being homeless. The fears that my parents had had for me, and that I had had for myself, had both, come to pass,

and by every usual standard, I was the biggest failure I knew. Now, I am not going to stand here and tell you that failure is fun. That period of my life was a dark one, and I had no idea that there was going to be what the press has since represented as a kind of fairy tale resolution. I had no idea then how far the tunnel extended, and for a long time, any light at the end of it was a hope rather than a reality. So why do I talk about the benefits of failure? Simply because failure meant a stripping away of the inessential. I stopped pretending to myself that I was anything other than what I was, and began to direct all my energy into finishing the only work that mattered to me. Had I really succeeded at anything else, I might never have found the determination to succeed in the one arena I believed I truly belonged. I was set free, because my greatest fear had been realised, and I was still alive, and I still had a daughter whom I adored, and I had an old typewriter and a big idea. And so rock bottom became the solid foundation on which I rebuilt my life. You might never fail on the scale I did, but some failure in life is inevitable. It is impossible to live without failing at something, unless you live so cautiously that you might as well not have lived at all in which case, you fail by default. Failure gave me an inner security that I had never attained by passing examinations. Failure taught me things about myself that I could have learned no other way. I discovered that I had a strong will, and was more discipline than I had suspected; I also found out that I had friends whose value was truly above the price of rubies. The knowledge that you have emerged wiser and stronger from setbacks means that you are, ever after, secure in your ability to survive. You will never truly know yourself, or the strength of your relationships, until both have been tested by adversity. Such knowledge is a true gift, for all that it is painfully won, and it has been worth more than any qualification I ever earned.

176. According to the author, what can be defined as 'failure'?
  - (a) Failing on an epic scale
  - (b) Not truly knowing yourself
  - (c) Living your life so cautiously that you do not fail
  - (d) A situation where all your fears come to pass
177. Which of the following is a major benefit of failure according to the passage?
  - (a) Failure helps in stripping away the inessential.
  - (b) Failure teaches you things which you could not have learnt in any other way.
  - (c) Failure gives you an inner security which cannot be otherwise attained.
  - (d) Failure helps you in finding the determination to succeed.

178. Why does the author say that failure is 'inevitable' in life?
- Because nothing can prevent the caprice of fate.
  - Because not all of us are well acquainted with failure.
  - Because life is difficult and too complicated.
  - Because the fear of failure takes precedence over the desire for success.
179. Which of the following is a suitable title for this passage?
- What constitutes failure?
  - Failure is inevitable in life
  - Failure has its benefits
  - A hope rather than a reality
180. According to the author, what is the impact of failure on a person?
- A person emerges wiser and stronger implying that he is secure in his ability to survive.
  - A person realises that happiness in life does not depend on the achievements or acquisitions.
  - A person realises that his qualifications and CV are not his life.
  - A person realises the strength of his relationships by identifying his true friends.

### PASSAGE - III

Speech is a great blessing but it can also be a great curse, for while it helps us to make our intentions and desires known to our fellows, it can also, if we use it carelessly, make our attitude completely misunderstood. A slip of the tongue, the use of an unusual word, or of an ambiguous word, and so on, may create an enemy where we had hoped to win a friend. Again, different classes of people use different vocabularies, and the ordinary speech of an educated man may strike an uneducated listener as pompous. Unwittingly, we may use a word which objective general English bears a different meaning to our listener from what it does to men of our own class. Thus speech is not a gift to use lightly without thought, but one which demands careful handling. Only a fool will express himself alike to all kinds and conditions of men.

181. Speech can be a curse, because it can
- reveal our intentions
  - lead to carelessness
  - hurt others
  - create misunderstanding
182. A 'slip of the tongue' means something said
- unintentionally
  - wrongly by chance

- without giving proper-thought
  - to hurt another person
183. The best way to win a friend is to avoid .....in speech.
- ambiguity
  - verbosity
  - propensity
  - irony
184. While talking to an uneducated person, we should use
- polite language
  - ordinary speech
  - his vocabulary
  - simple words
185. If one used the same style of language with everyone, one would sound
- democratic
  - foolish
  - boring
  - flat

### PASSAGE - IV

This rule of always trying to do things as well as one can do them has an important bearing upon the problem of ambition. No man or woman should be without ambition, which is the inspiration of activity. But if one allows ambition to drive one to attempt things which are beyond one's own personal capacity, then unhappiness will result. If one imagines that one can do everything better than other people, then envy and jealousy, those twin monsters, will come to sadden one's days. But if one concentrates one's attention upon developing one's own special capacities, the things one is best at, then one does not worry over much if other people are more successful.

186. Which one of the following alternatives brings out the meaning of 'to have a bearing upon' clearly?
- to have an effect on
  - to carry the weight on oneself
  - to put up with
  - to decrease friction
187. Which one of the following statements is correct?
- There is a close relationship between ambition and activity.
  - Ambition and activity belong to two different areas.
  - Ambition is useless.
  - Activity is responsible for ambition.
188. The statement 'if one allows ambition to drive one to attempt things which are beyond one's own personal capacity, then unhappiness will result, means that:
- One must always try to do less than one's capacity.
  - One must always try to do more than one's capacity.

- (c) Ambition must be consistent with one's capacity.
- (d) There should be no ambition at all.
189. Which one of the following statements best reflects the underlying tone of the passage?
- (a) One must do everything as well as one can.
- (b) One must try to be better than others.
- (c) One must continuously worry about others.
- (d) One must try beyond one's capacity to get results.
190. Which one of the following statements can be assumed to be true?
- (a) It is good to imagine oneself better than others.
- (b) One should not imagine oneself always to be better than others.
- (c) All persons have equal capacity
- (d) One should have more ambition than others.

#### PASSAGE - V

These questions touch on all the major controversies in the study of mind, with important implications for politics, law and religion. Yet very little empirical work had been done on these questions until recently. The idea that language might shape thought was for a long time considered untestable at best and more often simply crazy and wrong. Now, a flurry of new cognitive science research is showing that in fact, language does profoundly influence how we see the world. Language is not a cultural artifact that we learn the way we learn to tell time or how the federal government works. Instead, it is a distinct piece of the biological makeup of our brains. Language is a complex, specialized skill, which develops in the child spontaneously, without conscious effort or formal instruction, is deployed without awareness of its underlying logic, is qualitatively the same in every individual, and is distinct from more general abilities to process information or behave intelligently. For these reasons some cognitive scientists have described language as a psychological faculty, a mental organ, a neural system, and a computational module. But I prefer the admittedly quaint term instinct. It conveys the idea that people know how to talk in more or less the sense that spiders know how to spin webs. Web-spinning was not invented by some unsung spider genius and does not depend on having had the right education or on having an aptitude for architecture or the construction trades. Rather, spiders spin spider webs because they have spider brains, which give them the urge to spin and the competence

to succeed. Although there are differences between webs and words, I will encourage you to see language in this way, for it helps to make sense of the phenomena we will explore. Thinking of language as an instinct inverts the popular wisdom, especially as it has been passed down in the canon of the humanities and social sciences. Language is no more a cultural invention than is upright posture. It is not a manifestation of a general capacity to use symbols: a three year old, we shall see, is a grammatical genius, but is quite incompetent at the visual arts, religious iconography, traffic signs, and the other staples of the semiotics curriculum. Though language is a magnificent ability unique to *Homo sapiens* among living species, it does not call for sequestering the study of humans from the domain of biology, for a magnificent ability unique to a particular living species is far from unique in the animal kingdom. Some kinds of bats home in on flying insects using Doppler sonar. Some kinds of migratory birds navigate thousands of miles by calibrating the positions of the constellations against the time of day and year. In nature's talent show we are simply a species of primate with our own act, a knack for communicating information about who did what to whom by modulating the sounds we make when we exhale. Once you begin to look at language not as the ineffable essence of human uniqueness but as a biological adaption to communicate information, it is no longer as tempting to see language as an insidious shaper of thought, and, we shall see, it is not. Moreover, seeing language as one of nature's engineering marvels an organ with that perfection of structure and co-adaption which justly excites our admiration, in Darwin's words- give us a new respect for your ordinary Joe and the much-maligned English language (or any language). The complexity of language, from the scientists point of view, is part of our biological birth right; it is not something that parents teach their children or something that must be elaborated in school as Oscar Wilde said, Education is an admirable thing, but it is well to remember from time to time that nothing that is worth knowing can be taught. Pre-schooled static knowledge of grammar is more sophisticated than the thickest style manual or the most state-of-the-art computer language system, and the same applies to all healthy human beings, even the notorious syntax-fracturing professional athlete and the, you know, like, inarticulate teenage skateboarder. Finally, since language is the product of a well-engineered biological instinct, we shall see that it is not nutty barrel of monkeys that entertainer-columnists make it out to be.

191. According to the passage, which of the following does not stem from popular wisdom on language?
- Language is a cultural artifact.
  - Language is learnt as we grow.
  - Language is a psychological faculty.
  - Language is unique to Homo sapiens.
192. Which of the following can be used to replace the spiders know how to spin webs analogy as used by the author?
- A donkey carrying a load.
  - A kitten learning to jump over a wall
  - Bees collecting nectar.
  - A pet dog protecting its owner's property.
193. According to the passage, which of the following is unique to human beings?
- Ability to communicate information to other members of the species.
  - Ability to communicate with each other through voice modulation.
  - Ability to use sound as means of communication.
  - All of the above.
194. According to the passage, complexity of language cannot be taught by parents or at school to children because
- children learn the language on their own.
  - children are born with the knowledge of semiotics.
  - children instinctively know language.
  - children know language better than their teachers or parents.
195. Which of the following best summarizes the passage?
- Language is instinctive ability of human beings.
  - Language is use of symbols unique to human beings.
  - Language is not a cultural invention or artifacts as it is made out.
  - Language is neither learnt nor taught.
- The strategy was not only to provide mass vaccinations, but also to isolate patients with active smallpox in order to contain the spread of the disease and to break the chain of human transmission. Rewards for reporting smallpox assisted in motivating the public to aid health workers. One by one, each smallpox victim was sought out, removed from contact with others and treated. At the same time, the entire village where the victim had lived was vaccinated. Today smallpox is no longer a threat to humanity. Routine vaccinations have been stopped worldwide.
196. Which of the following is the best title for the passage?
- The World Health Organization
  - The Eradication of Smallpox
  - Smallpox Vaccinations
  - Infectious Diseases
197. What was the goal of the campaign against smallpox?
- To decrease the spread of smallpox worldwide
  - To eliminate smallpox worldwide in ten years
  - To provide mass vaccinations against smallpox worldwide
  - To initiate worldwide projects for smallpox, malaria and yellow fever at the same time
198. According to the paragraph what was the strategy used to eliminate the spread of small pox?
- Vaccination of the entire village
  - Treatment of individual victims
  - Isolation of victims and mass vaccinations
  - Extensive reporting of outbreaks
199. Eleven years after the initial organization of the campaign, \_\_\_\_\_
- smallpox was no longer a threat to humanity
  - no cases were reported in the field
  - organization members changed the strategy
  - more number of people had been victimized from smallpox
200. It can be inferred that—
- No new cases of smallpox have been reported this year.
  - Malaria and yellow fever have been eliminated.
  - Smallpox victims no longer die when they contract the disease.
  - Smallpox is not transmitted from one person to another.

#### PASSAGE - VI

In May 1966, the World Health Organization was authorized to initiate a global campaign to eradicate smallpox. The goal was to eradicate the disease in one decade. Because similar projects for malaria and yellow fever had failed, few believed that smallpox could actually be eradicated but eleven years after the initial organization of the campaign, no cases were reported in the field.

# Hints & Explanations

## QUANTITATIVE ABILITY

1. (c)  $\frac{5}{16} = 0.312, \frac{6}{17} = 0.352, \frac{7}{18} = 0.388$

Therefore,  $\frac{5}{16} < \frac{6}{17} < \frac{7}{18}$

2. (a) Let Heera and Mohan have respectively  $x$  and  $y$  cards.

Also assume that they intend to exchange  $z$  no. of cards between themselves

Now,  $(x+z) = 4(y-z) \Rightarrow 5z = 4y-x$

Also,  $(x-z) = 3(y+z)$

Putting  $z = \frac{4y-x}{5}$ , we get

$$x - \frac{4y-x}{5} = 3\left(y + \frac{4y-x}{5}\right)$$

$$\Rightarrow 5x - 4y + x = 3(5y + 4y - x)$$

$$\Rightarrow 6x - 4y = 27y - 3x \Rightarrow 9x = 31y$$

$$\Rightarrow y = \frac{9}{31}x \Rightarrow z = \frac{36x - 31x}{31 \times 5} = \frac{x}{31}$$

$$\Rightarrow x : y : z = x : \frac{9}{31}x : \frac{x}{31} = 31 : 9 : 1$$

$\Rightarrow$  Heera has 31 cards.

3. (d)  $B + D = 50$  ....(i)

$B + 8 = C \Rightarrow B = C - 8$  ....(ii)

$A - 8 = C - 3 \Rightarrow A = C + 5$  ....(iii)

$A + 6 = 2D \Rightarrow A + 6 = 2(50 - B)$

$\Rightarrow A + 2B = 94$  ....(iv)

Putting the values of (ii) and (iii) in (iv) we get

$$C + 5 + 2(C - 8) = 94$$

$$\Rightarrow 3C - 11 = 94$$

$$\Rightarrow C = 105/3 = 35$$

$$A = 40, B = 27, C = 35, D = 23.$$

4. (b) Let there are  $r$  rows and  $x$  students in each row. According to question

$$(x+4)(r-4) = x \times r$$

$$\Rightarrow -4x + 4r = 16$$
 ....(i)

$$(x-2) \times (r+4) = x \times r$$

$$\Rightarrow 4x - 2r = 8$$
 ....(ii)

Adding equations (i) and (ii), we get

$$2r = 24$$

$$\Rightarrow r = 12$$

$$\therefore 4x - 24 = 8$$

$$x = 8$$

$$\therefore \text{Total number of students} = 8 \times 12 = 96$$

5. (d) Only option (d) has difference of 308 and only 2914 is divisible by 47.

6. (a) Let A lent Rs.  $x$  and B lent ₹  $y$

Since, A and B together lent out ₹ 81600

$$\therefore x + y = 81,600$$

Now, given (r) Rate = 4%

$$\therefore 1 + r = 1 + \frac{4}{100} = \frac{26}{25}$$

According to the question, we have

$$\frac{x}{y} = \left(\frac{26}{25}\right)^{3-2} = \frac{26}{25}$$

$\therefore$  Investment made by B

$$= 81600 \times \frac{25}{51} = 40,000$$

7. (b) Let the original price of a screw driver and a hammer be ₹ 100 each.

Then, price of 3 screw drivers and 3 hammers = ₹ 600

Now, after increase of 5%, the price of 3 screw drivers = ₹ 315

And after 3% increase the price of 3 hammers = ₹ 309

Increased price of 3 hammers and 3 screw drivers = ₹ 624

Therefore, % increase in price

$$= \frac{624 - 600}{600} \times 100 = \frac{24}{600} \times 100 = 4\%$$

8. (c) Let average cost of petrol per litre be ₹  $x$

$$\therefore x = \frac{12000}{\frac{4000}{7.5} + \frac{4000}{8} + \frac{4000}{8.5}}$$

$$= \frac{12000}{4000 \left( \frac{1}{7.5} + \frac{1}{8} + \frac{1}{8.5} \right)} = \frac{3}{\frac{10}{75} + \frac{1}{8} + \frac{10}{85}}$$

$$= \frac{3}{\frac{2}{15} + \frac{1}{8} + \frac{2}{17}} = \frac{6120}{767} = ₹ 7.98 \text{ per litre.}$$

9. (b) In first cask,

$$\text{Quantity of water} = \frac{7}{20} \times 48 = 16.8 \text{ L}$$

$$\text{Quantity of wine} = \frac{13}{20} \times 48 = 31.2 \text{ L}$$

In second cask,

$$\text{Quantity of water} = \frac{17}{35} \times 42 = 20.6 \text{ L}$$

$$\text{Quantity of wine} = \frac{18}{35} \times 42 = 21.6 \text{ L}$$

Now after mixing:

$$\text{Total quantity of wine} = 52.8 \text{ L}$$

$$\text{Quantity of water} = 57.2 \text{ L}$$

$$\text{Ratio after mixing} = \frac{52.8}{57.2} = \frac{528}{572} = \frac{12}{13}$$

$$= 12 : 13.$$

10. (c) In first container,

$$\text{Quantity of milk} = 20 \times \frac{90}{100} = 18 \text{ L}$$

$$\text{Quantity of water} = 2 \text{ L}$$

In second container,

$$\text{Quantity of milk} = 5 \times \frac{80}{100} = 4 \text{ L}$$

$$\text{Quantity of water} = 1 \text{ L}$$

In third container,

$$\text{Quantity of milk} = 9 \times \frac{70}{100} = 6.3 \text{ L}$$

$$\text{Quantity of water} = 2.7 \text{ L}$$

After mixing :

$$\text{total milk} = 18 + 4 + 6.3 = 28.3 \text{ L}$$

$$\text{total water} = 2 + 1 + 2.7 = 5.7 \text{ L}$$

Ratio milk and water after

mixing = 28.3 L : 5.7 L = 5 : 1 (approx)

11. (d) (Mother + Daughter)'s one day's work =  $\frac{1}{4}$

$$\text{Remaining work} = \frac{3}{4}$$

Mother's one day's work

$$= \frac{1}{6}$$

Daughter's one day's work

$$= \frac{1}{4} - \frac{1}{6} = \frac{1}{12}$$

$\frac{1}{12}$  work is done by the daughter in 1 day.

Therefore,  $\frac{3}{4}$  work will be done by the daughter in

$$\frac{12 \times 3}{4} = 9 \text{ days}$$

12. (c) Let the distance travelled during both upward and downward journey be x km.

$$\text{Average speed} = \frac{\text{Total distance covered}}{\text{Total time taken}}$$

$$= \frac{\frac{x+x}{\frac{x}{16} + \frac{x}{28}}}{\frac{2}{28 \times 16}}$$

$$= \frac{2 \times 28 \times 16}{44} = 20.36 \text{ km/h}$$

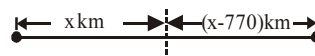
13. (c) Distance between Chauhan and the gun  
=  $3.32 \times 1000 = 3320 \text{ m}$

$$\text{Time taken} = 10 \text{ s}$$

$$\Rightarrow \text{Speed} = \frac{3320}{10} = 332 \text{ m/s}$$

14. (b) Let the aeroplane covers x km at a speed of 440 km/h and (x - 770) km at a speed of 660 km/h.

Hence, it covers a total distance of (2x - 770) km at a speed of 500 km/h.



$$\text{Average speed} = \frac{\text{Total distance}}{\text{Total time}}$$

$$\Rightarrow 500 = \frac{2x - 770}{\frac{x}{440} + \frac{x - 770}{660}}$$

$$\text{or } \frac{2x - 770}{500} = \frac{x}{440} + \frac{x - 770}{660}$$

$$\text{or } x = 1760$$

Therefore, the total distance covered

$$= 2x - 770$$

$$= 2 \times 1760 - 770 = 2750 \text{ km}$$

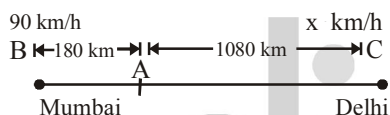
15. (c) Let the speed of train C be  $x$  km/h.

At 9 p.m. the train A will have covered a distance of 180 km.

For trains A and B relative speed  $= (90 - 60) = 30$  km/h

Distance between them = 180 km

$$\text{Time after which they meet} = \frac{180}{30} = 6 \text{ hrs}$$



For trains A and C relative speeds  $= (60 + x)$  km/h Distance between them = 1080 km.

16. (b) Time taken by the boat during downstream

$$\text{journey} = \frac{50}{60} = \frac{5}{6} \text{ h}$$

Time taken by the boat in upstream journey

$$= \frac{5}{4} \text{ h}$$

$$\text{Average speed} = \frac{2 \times 50}{\frac{5}{6} + \frac{5}{4}} = \frac{100 \times 24}{50} = 48 \text{ mph}$$

$$\text{Time after which they meet} = \frac{1080}{(60 + x)} \text{ hrs}$$

As the time of meeting of all the three trains

$$\text{is the same, we have } \frac{1080}{(60 + x)} = 6$$

$$\text{or } x = 120 \text{ km/h}$$

17. (a) Product of first sixty consecutive integers  $= 60!$

$$8 = 2 \times 2 \times 2 = 2^3$$

highest power of 2 is 60!

$$= \left[ \frac{60}{2} \right] + \left[ \frac{60}{2^2} \right] + \left[ \frac{60}{2^3} \right] + \left[ \frac{60}{2^4} \right] + \left[ \frac{60}{2^5} \right]$$

$$= 30 + 15 + 7 + 3 + 1 = 56$$

$$\text{highest power of 80 or } (2^3) = \left[ \frac{56}{3} \right] = 18$$

18. (a) The clock gains 15 min in 24 hours.

Therefore, in 16 hours, it will gain 10 minutes.

Hence, the time shown by the clock will be 4.10 am.

19. (d)  $a^n - b^n$  is divisible by  $(a+b)$  &  $(a-b)$  if  $n$  is even

$\therefore 7^{10} - 5^{10}$  is divisible by  $(7+5)$  i.e. 12.

20. (d)  $a^2 - 4a - 1 = 0$

$$a^2 - 4a = 1$$

$$a(a - 4) = 1$$

$$a - 4 = \frac{1}{a}$$

$$a - \frac{1}{a} = 4 \quad \dots(1)$$

$$\text{We have } a^2 + 3a + \frac{1}{a^2} - \frac{3}{a}$$

$$\left( a^2 + \frac{1}{a^2} \right) + 3 \left( a - \frac{1}{a} \right)$$

$$\left( a - \frac{1}{a} \right)^2 + 3 \left( a - \frac{1}{a} \right) + 2$$

$$4^2 + 3 \times 4 + 2 = 30$$

21. (b) Given,

$$\frac{x}{2x + y + z} = \frac{y}{x + 2y + z} = \frac{z}{x + y + 2z} = a$$

$$\Rightarrow x = a(2x + y + z), y = a(x + 2y + z) \text{ and}$$

$$z = a(x + y + 2z)$$

$$\Rightarrow x + y + z = a(4x + 4y + 4z) = 4a(x + y + z)$$

$$\Rightarrow 4a = 1 \text{ or } a = \frac{1}{4}$$

22. (a)  $a + b + c = 0$   
i.e.  $a = -(b + c)$ ;  $b = -(c + a)$ ;  $c = -(a + b)$

$$\text{Now, } \frac{a+b}{c} - \frac{2b}{c+a} + \frac{b+c}{a}$$

$$\Rightarrow \frac{a+b}{-(a+b)} - \frac{2[-(c+a)]}{c+a} + \frac{b+c}{-(b+c)}$$

$$\Rightarrow -1 + 2 - 1 = 0$$

23. (d) Here,  $a + b + c = 0$   
 $\Rightarrow 331 + 336 - 667 = 0$   
 $\therefore a^3 + b^3 + c^3 - 3abc = 0$

24. (c) Given that,  $x + \frac{1}{x} = a$

Then,

$$x^3 + x^2 + \frac{1}{x^3} + \frac{1}{x^2} = \left(x^3 + \frac{1}{x^3}\right) + \left(x^2 + \frac{1}{x^2}\right)$$

$$= \left(x + \frac{1}{x}\right)^3 - 3\left(x + \frac{1}{x}\right) + \left(x + \frac{1}{x}\right)^2 - 2$$

$$= a^3 - 3a + a^2 - 2 = a^3 + a^2 - 3a - 2$$

25. (a) Let Ronit's present age be  $x$  years. Then father's present age  $= (x + 3x)$  years  $= 4x$  years.

$$\text{and } 4x + 8 = \frac{5}{2}(x + 8) \Rightarrow 8x + 16 = 5x + 40$$

$$\Rightarrow 3x = 24 \Rightarrow x = 8.$$

$$\text{Hence, required ratio} = \frac{(4x + 16)}{(x + 16)} = \frac{48}{24} = 2$$

26. (b) Let fixed charge = ₹  $x$   
and charge for 1 km is ₹  $y$

$$x + 10y = 85$$

$$x + 15y = 120$$

$$\begin{array}{r} - \quad - \quad - \\ \hline \end{array}$$

$$-5y = -35$$

$$y = ₹ 7 \text{ per km}$$

$$x = ₹ 15$$

$$\text{Charges for 25 km} = 15 + 25 \times 7 = ₹ 190$$

27. (b) Let  $X$  be the given number. Then  
 $X/3 + X/4 + X/5 - X/2 = 34$ .  
Solving this, we get  $X = 120$ .

28. (d) Let the number of parrots be  $p$  and the number of tigers be  $t$ . Then

$$p + t = 858 \quad \dots(1)$$

$$2p + 4t = 1846 \quad \dots(2)$$

After rearranging equation (2), we get

$$p + 2t = 923 \quad \dots(3)$$

Solving (1) & (2) we get

$$t = 65 \text{ \& } p = 793$$

29. (d) Let number of notes of each denomination be  $x$ .

$$\text{Then, } x + 5x + 10x = 480 \Leftrightarrow 16x = 480 \Leftrightarrow x = 30.$$

$$\text{Hence, total number of notes} = 3x = 90.$$

30. (b) Let the two-digit number be  $10x + y$ .

According to the question,

$$x + y = 10 \quad \dots(i)$$

$$\text{and } 10y + x + 36 = 10x + y$$

$$\Rightarrow -9y + 9x = 36$$

$$\Rightarrow x + y = 10$$

$$\Rightarrow x - y = 4 \quad \dots(ii)$$

on adding (i) and (ii), we get

$$\Rightarrow 2x = 14 \Rightarrow x = 7$$

On putting the value of  $x$  in equation (i), we get

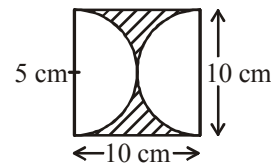
$$7 + y = 10$$

$$\Rightarrow y = 3$$

The required number is 73 which is not divisible by a composite number but a multiple of a prime number.

i.e. 73. So only II is the correct.

31. (d) Area between square and semi-circle = area of square - 2 Area of semi-circle



$$= (10)^2 - 2 \times \frac{22}{7} (5)^2$$

$$= 100 - 78.5 = 21.5 \text{ cm}^2$$

32. (c) Area of parallelogram = Base  $\times$  Height  
 $= 8.06 \times 2.08 = 16.76 \text{ cm}^2$

33. (b) Semi-perimeter of triangle

$$= \frac{a+b+c}{2}$$

$$= \frac{7+24+25}{2} = \frac{56}{2} = 28 \text{ cm}$$

Area of circle = Area of triangle

$$= \sqrt{s(s-a)(s-b)(s-c)}$$

$$= \sqrt{28(28-7)(28-24)(28-25)}$$

$$= \sqrt{28 \times 21 \times 4 \times 3}$$

$$= \sqrt{7056} = 84 \text{ cm}^2$$

34. (d)  $\tan \theta = \frac{a}{b}$

$$\frac{a \sin \theta - b \cos \theta}{a \sin \theta + b \cos \theta} = \frac{a \tan \theta - b}{a \tan \theta + b} = \frac{a^2 - b^2}{a^2 + b^2}$$

35. (b)  $2y \cos \theta = x \sin \theta$

$$\Rightarrow \sin \theta = \frac{2y}{x} \cos \theta$$

$$\text{And } 2x \sec \theta - y \operatorname{cosec} \theta = 3$$

$$\Rightarrow 2x \sec \theta - \frac{y}{\sin \theta} = 3$$

$$\Rightarrow \frac{2x}{\cos \theta} - \frac{yx}{2y \cos \theta} = 3$$

$$\Rightarrow 3 \cos \theta = \frac{3}{2} x \Rightarrow \cos \theta = \frac{x}{2}$$

$$\text{Now } \sin^2 \theta + \cos^2 \theta = 1$$

$$\Rightarrow y^2 + \frac{x^2}{4} = 1$$

$$\Rightarrow 4y^2 + x^2 = 4$$

36. (d)  $x = a \cos \theta - b \sin \theta$

$$y = b \cos \theta + a \sin \theta$$

$$x^2 + y^2 = (a \cos \theta - b \sin \theta)^2 + (b \cos \theta + a \sin \theta)^2$$

$$\Rightarrow a^2 \cos^2 \theta + b^2 \sin^2 \theta - 2ab \cos \theta \sin \theta + b^2 \cos^2 \theta + a^2 \sin^2 \theta + 2ab \cos \theta \sin \theta$$

$$\Rightarrow (a^2 + b^2) \cos^2 \theta + (a^2 + b^2) \sin^2 \theta$$

$$\Rightarrow a^2 + b^2 (\cos^2 \theta + \sin^2 \theta)$$

$$\Rightarrow a^2 + b^2 \cdot (1) \Rightarrow a^2 + b^2$$

37. (b) Let  $\sin x + \cos x = p$  ....(i)

$$\sin^3 x + \cos^3 x = q \quad \dots(ii)$$

On cubing Eq. (i) both sides

$$\sin^3 x + \cos^3 x + 3 \sin x \cos x (\sin x + \cos x) = p^3$$

Put  $\sin^3 x + \cos^3 x = q$  from equation (ii)

$$\Rightarrow q + 3 \sin x \cos x(p) = p^3 \dots(iii)$$

On squaring Eq. (i) both sides, we get

$$\sin^2 x + \cos^2 x + 2 \sin x \cos x = p^2$$

$$\Rightarrow \sin x \cos x = \frac{p^2 - 1}{2} [\because \sin^2 x + \cos^2 x = 1]$$

From Eq. (iii),

$$q + \frac{3(p^2 - 1)p}{2} = p^3$$

$$\Rightarrow 2q + 3p^3 - 3p = 2p^3 \Rightarrow p^3 - 3p = -2q$$

38. (d)  $\tan A + \cot A = 4$

$\Rightarrow$  Squaring both sides

$$\tan^2 A + \cot^2 A + 2 = 16$$

$$\tan^2 A + \cot^2 A = 14$$

Again, squaring both sides

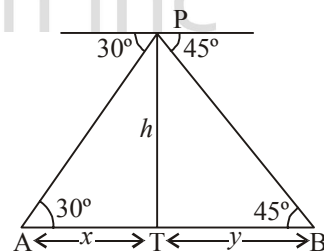
$$\tan^4 A + \cot^4 A + 2 = 196$$

$$\tan^4 A + \cot^4 A = 194$$

39. (a) In  $\Delta PBT$ ,

$$\tan 45^\circ = \frac{h}{y} = 1$$

$$\therefore y = h \quad \dots(i)$$



Now, in  $\Delta PTA$

$$\tan 30^\circ = \frac{h}{x} \Rightarrow x = \sqrt{3}h \quad \dots(ii)$$

$$\therefore \text{Required distance} = x + y$$

$$= \sqrt{3}h + h$$

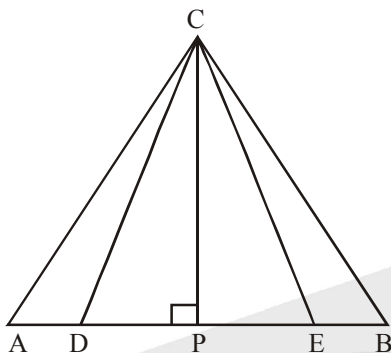
$$= h(\sqrt{3} + 1) \text{ m}$$

40. (a) Area of shaded region = Area of equilateral  $\triangle ABC - 3$  (Area of sector  $AQO$ )

$$= \frac{\sqrt{3}}{4} \times (2)^2 - 3 \times \frac{60}{360} \times \frac{22}{7} \times (1)^2$$

$$= \sqrt{3} - \frac{11}{7} = 1.73 - 1.57 = 0.16 \text{ sq. units.}$$

41. (b)



Area of equilateral triangle

$$ABC = \frac{\sqrt{3}}{4} \times (6)^2 = 9\sqrt{3} \text{ cm}^2$$

$$\text{Area of } \triangle CDE = \frac{1}{2} \times DE \times CP$$

$$= \frac{1}{2} \times 2 \times \frac{\sqrt{3}}{2} \times 6$$

$$= 3\sqrt{3} \text{ cm}^2$$

$\therefore$  Area of shaded region

$$= 9\sqrt{3} - 3\sqrt{3} = 6\sqrt{3} \text{ cm}^2$$

42. (b) Required area covered in 5 revolutions

$$= 5 \times 2\pi rh = 5 \times 2 \times \frac{22}{7} \times 0.7 \times 2 = 44 \text{ m}^2$$

43. (c) Let  $h = 2x$  metres and  $(l + b) = 5x$  metres.

$$\text{Length of the paper} = \frac{\text{Total cost}}{\text{Rate per m}} = \frac{260}{2}$$

$$m = 130 \text{ m.}$$

$$\text{Area of the paper} = \left(130 \times \frac{50}{100}\right) \text{ m}^2 = 65 \text{ m}^2.$$

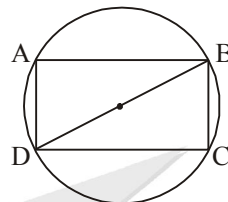
$$\text{Total area of 4 walls} = (65 + 15) \text{ m}^2 = 80 \text{ m}^2.$$

$$\therefore 2(l + b) \times h = 80 \Rightarrow 2 \times 5x \times 2x = 80$$

$$\Rightarrow x^2 = 4 \Rightarrow x = 2.$$

$$\therefore \text{Height of the room} = 4 \text{ m.}$$

44. (c) ABCD be the rectangle inscribed in the circle of diameter 5 cm.



$\therefore$  Diameter = Diagonal of rectangle

Now, let  $x$  and  $y$  be the lengths and breadths of rectangle, respectively.

Now in  $\triangle ABD$ ,

$$AB^2 + AD^2 = (5)^2 \Rightarrow x^2 + y^2 = 25$$

Since, they form Pythagoras triplet,

$$\therefore x = 4 \text{ and } y = 3$$

$$\text{So, area of rectangle} = 3 \times 4 = 12 \text{ cm}^2$$

45. (b)  $AB = AE$  (Given)

$$\therefore \angle ABC = 65^\circ = \angle AEB$$

$AB \parallel CD$ , then

$$\angle ABE = \angle DCE = 65^\circ \text{ (Alternate angles)}$$

In  $\triangle DCE$ ,

$$\angle D + \angle C + \angle E = 180^\circ$$

$$\angle E = 180^\circ - 65^\circ - 15^\circ = 100^\circ$$

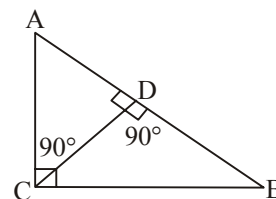
$BC$  and  $FD$  intersect each other at  $E$ , then

$$\angle BEF = \angle DEC = 100^\circ$$

$$\angle AEF = 100^\circ - 65^\circ = 35^\circ$$

$$\text{(Because } \angle BEF = \angle BEA + \angle AEF)$$

46. (c)



In  $\triangle ABC$

$CD \perp AB$

and  $AB \times CD = CA \times CB$  .... (i)

In  $\triangle ABC$

$$AB^2 = CA^2 + CB^2$$

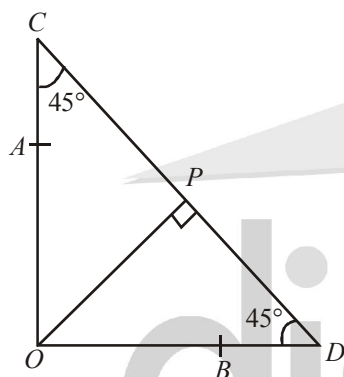
$$CD^2 = \frac{CA^2 \times CB^2}{AB^2} \text{ from } \dots(i)$$

$$\frac{1}{CD^2} = \frac{AB^2}{CA^2 \times CB^2}$$

$$= \frac{CA^2 + CB^2}{CA^2 \times CB^2}$$

$$\frac{1}{CD^2} = \frac{1}{BC^2} + \frac{1}{CA^2}$$

47. (b)



$$OC = OD \text{ and } OA = OP = OB$$

$$OP = 1 \text{ m}$$

$$\therefore PC = 1 \text{ m}$$

$$OC = \sqrt{2} \text{ m}$$

$$\therefore AC = OC - OA$$

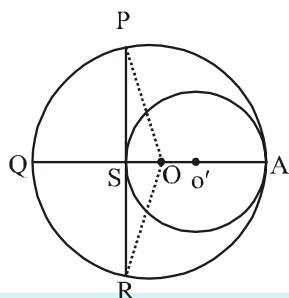
$$= (\sqrt{2} - 1) \text{ m}$$

$$\text{and } AC + CP = (\sqrt{2} - 1) + 1$$

$$= \sqrt{2} \text{ m}$$

$$= 1.414 \text{ m} = 141.4 \text{ cm}$$

48. (d)



Let O is centre of big circle, and O' is centre of smaller circle. Both are touch internally each other.

$$OA = 6 \text{ cm} \quad O'A = 4 \text{ cm}$$

Here PR is longest chord of big circle

$$P.S = \frac{PR}{2}$$

$$OS = AS - OA$$

$$= 8 - 6 = 2 \text{ cm.}$$

In  $\triangle PSO$

$$(PS)^2 + (OS)^2 = (OP)^2$$

$$\Rightarrow (PS)^2 + (2)^2 = (6)^2$$

$$PS = \sqrt{36 - 4} = \sqrt{32} = 4\sqrt{2}$$

Now,

$$PS = \frac{PR}{2}$$

$$PR = 2 \times PS = 2 \times 4\sqrt{2} = 8\sqrt{2}$$

Shortcut Method:

$$\text{Longest chord} = 2\sqrt{R^2 - (R - r)^2}$$

$$= 2\sqrt{36 - 4} = 8\sqrt{2}$$

49. (d) Let A = no. of students passed in the first semester.

B = no. of students passed in second semester.

$$\text{Given, } n(A) = 260, n(B) = 210$$

$$\therefore n(\bar{A}) = \text{no. of students did not pass in first semester.}$$

$$= 500 - 260 = 240$$

$$\text{Similarly, } n(\bar{B}) = 500 - 210 = 290$$

$$\text{Thus, we have } n(\bar{A} \cup \bar{B}) = 170,$$

$$n(\bar{A}) = 240, n(\bar{B}) = 290$$

$$\therefore n(\bar{A} \cup \bar{B}) = n(\bar{A}) + n(\bar{B}) - n(\bar{A} \cap \bar{B})$$

$$\Rightarrow 170 = 240 + 290 - n(\bar{A} \cap \bar{B})$$

$$\Rightarrow n(\bar{A} \cap \bar{B}) = 360$$

$$\text{So, } n(\text{students passed in both semester}) = 500 - 360 = 140$$

50. (b)

51. (d) Zeros are obtained if there is any zero at the end of any multiplicand and if 5 or multiple of 5 are multiplied by any even number. i.e.  $(5)^n (2)^m$  has  $n$  zeros if  $n < m$  or  $m$  zeros if  $m < n$ .

Now we obtain the index of 5 as follows :

Index

$$= \left[ \frac{1000}{5} \right] + \left[ \frac{1000}{5^2} \right] + \left[ \frac{1000}{5^3} \right] + \left[ \frac{1000}{5^4} \right]$$

$$= 200 + 40 + 8 + 1 = 249.$$

Certainly,  $n$  will be less than  $m$ .

$\therefore$  Number of zeros = 249

52. (a)  $(x^n + 1)$  is divisible by  $(x + 1)$ , when  $n$  is odd.

$$(19^{19} + 19) = (19^{19} + 1) + 18$$

Now,  $(19^{19} + 1)$  is divisible by  $(19 + 1) = 20$

Thus, when  $(19^{19} + 1) + 18$  is divided by 20, the remainder is 18.

53. (d) Let the five consecutive odd numbers be  $(x - 4)$ ,  $(x - 2)$ ,  $x$ ,  $(x + 2)$  and  $(x + 4)$  respectively.

$$\text{Now, } (x - 4) + x = 146$$

$$\Rightarrow 2x - 4 = 146$$

$$\Rightarrow x = 75$$

$$\therefore E = (x + 4) = 79$$

54. (c)  $\sin \theta +$

$$\sqrt{\sin \theta + \sqrt{\sin \theta + \sqrt{\sin \theta + \dots \infty}}} = \sec^4 \alpha$$

$$= y^2 \text{ (say)} \quad \dots(i)$$

$$\text{Then, } y = \sqrt{\sin \theta + \sqrt{\sin \theta + \sqrt{\sin \theta + \dots \infty}}}$$

Squaring on both sides, we get

$$y^2 = \sin \theta + y$$

$$\Rightarrow y^2 - y = \sin \theta \text{ or } y(y - 1) = \sin \theta$$

$$\Rightarrow \sec^2 \alpha (\sec^2 \alpha - 1) = \sin \theta$$

$$[\text{from Eq. (i), } y = \sec^2 \alpha]$$

$$\Rightarrow \sin \theta = \sec^2 \alpha \tan^2 \alpha$$

55. (a)  $\frac{\sqrt{1 + \sin x} + \sqrt{1 + \sin x}}{\sqrt{1 + \sin x} - \sqrt{1 - \sin x}}$

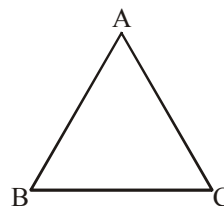
$$= \frac{(\sqrt{1 + \sin x} + \sqrt{1 - \sin x})^2}{(1 + \sin x) - (1 - \sin x)}$$

$$= \frac{2 + 2\sqrt{1 - \sin^2 x}}{2 \sin x} = \frac{1 + \cos x}{\sin x}$$

$$= \frac{1}{\sin x} + \frac{\cos x}{\sin x}$$

$$= \operatorname{cosec} x + \cot x$$

56. (b)



In  $\triangle ABC$ ,

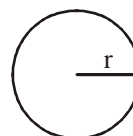
$$AB + BC = 12 \text{ cm}$$

$$BC + CA = 14 \text{ cm}$$

$$CA + AB = 18 \text{ cm}$$

$$\Rightarrow 2(AB + BC + CA) = 44 \text{ cm}$$

$$\Rightarrow AB + BC + CA = 22 \text{ cm}$$



Now,

ATQ

$$2\pi r = 22 \text{ cm}$$

$$\Rightarrow 2 \times \frac{22}{7} \times 22 \text{ cm}$$

$$\Rightarrow r = \frac{7}{2} \text{ cm}$$

57. (d) Sum of all interior angles =  $2 \times$  sum of all exterior angles

$$\Rightarrow (n - 2) \times 180^\circ = 2 \times 360^\circ$$

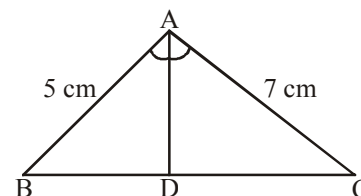
$$\text{or, } (n - 2) \times 180^\circ = 720^\circ$$

$$\Rightarrow (n - 2) = 4$$

$$\Rightarrow n = 6$$

$$\Rightarrow \text{Required no. of sides of the polygon} = 6$$

58. (d)



Here,

AD = angle bisector of  $\angle A$

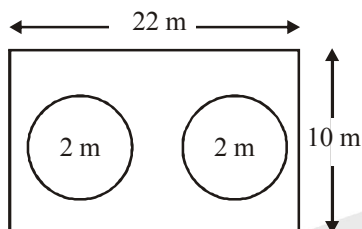
$\Rightarrow \angle BAD = \angle DAC$

In such case,

$$\frac{BD}{CD} = \frac{AB}{AC} = \frac{5}{7} \Rightarrow 5:7$$

59. (a)

60. (c) Volume of mud dug out in two hemispherical potholes



$$= 2 \times \frac{2}{3} \pi r^3 = 2 \times \frac{2}{3} \times \frac{22}{7} \times 2^3$$

$$= \frac{2 \times 2 \times 22 \times 8}{21} = \frac{704}{21} \text{ m}^3$$

Area on which the mud is spread over

= Area of field - Area of pothous

$$= l \times b - 1 \times \pi r^2$$

$$= 22 \times 10 - 2 \times \frac{22}{7} \times 2^2$$

$$= 220 - \frac{176}{7}$$

$$= \frac{1540 - 176}{7} = \frac{1364}{7} \text{ m}^2$$

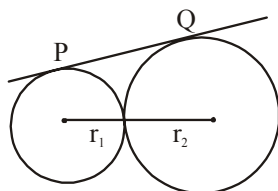
Now, let the rise in level by  $h$  m, then

Area of remaining field  $\times h$  = Volume of mud dogged out

$$\Rightarrow \frac{1364}{7} \times h = \frac{704}{21}$$

$$\therefore h = \frac{704 \times 7}{1364 \times 21} = \frac{16}{93} \text{ m}$$

61. (d)



$$r_1 + r_2 = 13 \text{ cm}$$

$$r_2 - r_1 = 9 - 4 = 5 \text{ cm}$$

PQ

$$= \sqrt{(\text{distance between centres})^2 - (r_2 - r_1)^2}$$

$$= \sqrt{(13^2 - 5^2)} = 12 \text{ cm}$$

$$\therefore \text{Area of square} = 12 \times 12$$

$$= 144 \text{ sq. cm.}$$

62. (d) Sum of the present ages of four boys  
=  $9 \times 4 + 20 = 56$  years

Sum of the present ages of five boys  
=  $15 \times 5 = 75$  years

$\therefore$  Present age of new boy

$$= 75 - 56 = 19 \text{ years}$$

63. (d) If the weight of a piece of diamond be  $6x$  units, then

$$\text{Original price} \propto (6x)^2 = 36kx^2$$

$$\therefore 36 \cdot kx^2 = 5184 \quad \dots(i)$$

Again,

$$\text{New price} = k(x^2 + 4x^2 + 9x^2)$$

$$= 14kx^2$$

$$= \frac{14 \times 5184}{36} = ₹ 2016$$

$$\therefore \text{Loss} = 5184 - 2016$$

$$= ₹ 3168$$

64. (d) Part of the tank filled by both pipes in two hours

$$= 2 \left( \frac{1}{8} + \frac{1}{6} \right)$$

$$= 2 \left( \frac{3+4}{24} \right) = \frac{7}{12}$$

$$\text{Remaining part} = 1 - \frac{7}{12} = \frac{5}{12}$$

Time taken by B in filling the remaining part

$$= \frac{5}{12} \times 6 = \frac{5}{2} = 2\frac{1}{2} \text{ hours}$$

65. (d) If the number of females be  $x$ , then, number of males =  $15000 - x$

$$\therefore x \times \frac{10}{100} + (15000 - x) \times \frac{8}{100}$$

$$= 16300 - 15000$$

$$\Rightarrow 10x + 120000 - 8x$$

$$= 1300 \times 100$$

$$\Rightarrow 2x = 130000 - 120000$$

$$= 10000$$

$$\Rightarrow x = 5000$$

66. (b) Interest =  $5700 - 5000 = ₹ 700$

$$\therefore \text{Rate} = \frac{700 \times 100}{5000 \times 1} = 14\%$$

Case II,

Interest

$$= \frac{\text{Principal} \times \text{Time} \times \text{Rate}}{100}$$

$$\frac{7000 \times 5 \times 14}{100} = ₹ 4900$$

$$\text{Amount} = 7000 + 4900 = ₹ 11900$$

67. (c) Relative speed =  $11 - 10 = 1$  kmph

Distance covered in 6 minutes

$$= \frac{1000}{60} \times 6 \text{ metre} = 100 \text{ metre}$$

$\therefore$  Remaining distance

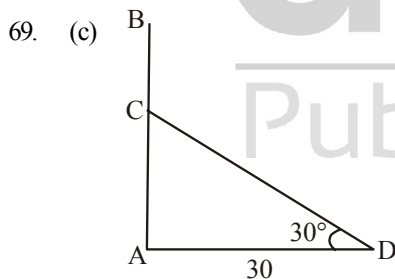
$$= 200 - 100 = 100 \text{ metre}$$

68. (d) Effective profit percent

$$= \left( 20 + 25 + \frac{20 \times 25}{100} \right) = 50\%$$

$\therefore$  Original cost price

$$= \frac{100}{150} \times 1200 = ₹ 800$$



AB = tree

BC = broken part

$\therefore BC = CD$

AD = 30 metre

From  $\triangle ACD$ ,

$$\tan 30^\circ = \frac{AC}{AD}$$

$$\Rightarrow AC = AD \times \frac{1}{\sqrt{3}}$$

$$= \frac{30}{3} = 10\sqrt{3} \text{ metre}$$

$$CD = AC \sin 30^\circ$$

$$= 10\sqrt{3} \times \frac{1}{2} = 5\sqrt{3} = BC$$

$$\therefore AB = AC + BC$$

$$= 10\sqrt{3} + 5\sqrt{3} = 15\sqrt{3} \text{ metre}$$

70. (d) According to the question,

$$\frac{n}{2} + \frac{n}{4} + \frac{n}{5} + 7 = n$$

$$\Rightarrow \frac{10n + 5n + 4n}{20} + 7 = n$$

$$\Rightarrow \frac{19n}{20} + 7 = n \Rightarrow n - \frac{19n}{20} = 7$$

$$\Rightarrow \frac{n}{20} = 7 \Rightarrow n = 20 \times 7 = 140$$

71. (a) Required percentage increase

$$= \frac{40 - 30}{30} \times 100 = \frac{100}{3} = 33\frac{1}{3}\%$$

72. (a) Income of company in 2002

$$= ₹ 40 \text{ lakhs}$$

Expenditure of company in 2003

$$= ₹ 40 \text{ lakhs}$$

73. (b) Profit of company in 2004

$$= ₹ 25 \text{ lakhs}$$

74. (c) Required difference

$$= 20 - 10 = ₹ 10 \text{ lakhs}$$

75. (a) Average income of company

$$= \frac{30 + 50 + 40 + 60 + 60}{5}$$

$$= \frac{240}{5} = ₹ 48 \text{ lakhs}$$

The incomes of company in years 2001, 2003 and 2004 were greater than ₹ 40 lakhs.

76. (d) 4 a 3

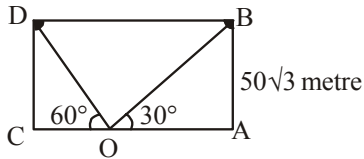
$$\begin{array}{r} 9 \ 8 \ 4 \\ 13 \overline{) 13 \ 7} \end{array}$$

$\therefore 13b7$  is exactly divisible by 11.

$$\therefore b = 9 \therefore a = 1$$

$$\therefore a + b = 9 + 1 = 10$$

77. (d)



$$AB = CD = 50\sqrt{3} \text{ metre}$$

From  $\triangle OAB$ ,

$$\tan 30^\circ = \frac{AB}{OA}$$

$$\Rightarrow \frac{1}{\sqrt{3}} = \frac{50\sqrt{3}}{OA}$$

$$\Rightarrow OA = 50\sqrt{3} \times \sqrt{3} = 150 \text{ metre}$$

From  $\triangle OCD$ ,

$$\tan 60^\circ = \frac{CD}{OC}$$

$$\sqrt{3} = \frac{50\sqrt{3}}{OC} \Rightarrow OC = 50 \text{ metre}$$

$$\therefore BD = AC = 150 + 50 = 200 \text{ metre}$$

$\therefore$  Speed of bird

$$= \frac{200}{2} = 100 \text{ m/minute}$$

$$= \frac{100}{1000} \times 60 \text{ kmph}$$

$$= 6 \text{ kmph}$$

78. (c)

Liquid A =  $4x$  litre

Liquid B =  $x$  litre

In 10 litres of mixture,

$$\text{Liquid A} = \frac{4}{5} \times 10 = 8 \text{ litre}$$

Liquid B = 2 litre

$$\therefore \frac{4x - 8}{x - 2 + 10} = \frac{2}{3}$$

$$\Rightarrow 12x - 24 = 2x + 16$$

$$\Rightarrow 10x = 40 \Rightarrow x = 4$$

$\therefore$  Initial quantity of liquid A = 16 litre

79. (c)

$$M + T + W = 90^\circ \quad \dots(i)$$

$$T + W + Th = 99^\circ \quad \dots(ii)$$

By equation (ii) - (i)

$$Th - M = 9^\circ \Rightarrow Th - 32 = 9$$

$$\Rightarrow Th = 9^\circ + 32 = 41^\circ$$

80. (b)

$$\text{Difference of } P\% \text{ and } L\% = 30 - (-10) = 40\%$$

$$\frac{40}{100}x = 80$$

$$x = 200$$

81. (d)

Let the length of train be  $x$  km and its speed by kmph.

$$\therefore \frac{x}{y - 2} = \frac{9}{3600} = \frac{1}{400} \quad \dots(i)$$

$$\frac{x}{y - 4} = \frac{10}{3600} = \frac{1}{360} \quad \dots(ii)$$

By dividing equation (i) by (ii),

$$\frac{y - 4}{y - 2} = \frac{360}{400} = \frac{9}{10}$$

$$\Rightarrow 10y - 40 = 9y - 18$$

$$\Rightarrow y = 40 - 18 = 22$$

From equation (i),

$$\frac{x}{22 - 2} = \frac{1}{400}$$

$$\Rightarrow x = \frac{1}{20} \text{ km} = \frac{1000}{20} = 50 \text{ metre}$$

82. (a)

$$\therefore 12 \text{ men} \equiv 18 \text{ women}$$

$$\therefore 2 \text{ men} \equiv 3 \text{ women}$$

$$\therefore 8 \text{ men} + 16 \text{ women} = 28 \text{ women}$$

$$\therefore M_1 D_1 = M_2 D_2$$

$$\Rightarrow 18 \times 14 = 28 \times D_2$$

$$\Rightarrow D_2 = \frac{18 \times 14}{28} = 9 \text{ days}$$

83. (d)

$$\text{C.P. of 9 articles} = \frac{100}{96} = ₹ \frac{25}{24}$$

$\therefore$  S.P. for a gain of 44 %

$$= \frac{25}{24} \times \frac{144}{100} = ₹ \frac{3}{2}$$

$\therefore$  Required number of articles

$$= 9 \times \frac{2}{3} = 6$$

84. (c) Difference of rates = 4%

$$\therefore \frac{\text{Principal} \times \text{Time} \times \text{Rate}}{100}$$

$$= 960$$

$$\Rightarrow \frac{x \times 12 \times 4}{100} = 960$$

$$\Rightarrow x = \frac{960 \times 100}{12 \times 4} = ₹ 2000$$

85. (b) Required ratio = 2 : 5

86. (a) It is obvious from the bar diagram.

87. (a) Required average =  $\frac{121}{4} = 30.25$  lakhs

88. (d) Required range =  $16 - 3 = 13$  lakhs

89. (b) Required percentage =  $\frac{46}{121} \times 100 = 38$

90. (c) A's profit : B's profit

$$= \frac{1}{3} : \frac{2}{3} = 1 : 2$$

$$\therefore \frac{\text{A's equivalent capital}}{\text{B's equivalent capital}} = \frac{1}{2}$$

$$\Rightarrow \frac{\frac{x}{4} \times 15}{\frac{3x}{4} \times n} = \frac{1}{2} \Rightarrow \frac{15}{3n} = \frac{1}{2}$$

$$\Rightarrow n = 10 \text{ months}$$

91. (c) If time taken by A be  $x$  days,  
then time taken by B =  $3x$  days

$$\therefore 3x - x = 60$$

$$\Rightarrow 2x = 60$$

$$\Rightarrow x = 30$$

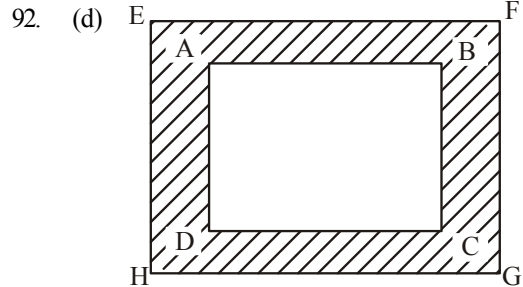
Time taken by B = 90 days

$\therefore$  (A + B)'s 1 day's work

$$= \frac{1}{30} + \frac{1}{90} = \frac{3+1}{90} = \frac{4}{90} = \frac{2}{45}$$

$\therefore$  The work will be completed in

$$\frac{45}{2} \text{ i.e. } 22\frac{1}{2} \text{ days}$$



Area of the shaded region

$$= (100 + 2 \times 10)(80 + 2 \times 10) - 100 \times 80$$

$$= 120 \times 100 - 8000$$

$$= 4000 \text{ sq. metre}$$

93. (c) If the C.P. of machine by ₹  $x$ , then

$$x \times \frac{110}{100} = \frac{27500 \times 90}{100}$$

$$\Rightarrow \frac{11x}{10} = 275 \times 90$$

$$\Rightarrow x = \frac{275 \times 900}{11} = ₹ 22500$$

94. (b) Required ratio =  $8 \times 7 : 5 \times 9 = 56 : 45$

95. (b) Required average

$$= \frac{40 \times 5 - 35 + 25}{5}$$

$$= \frac{190}{5} = 38 \text{ years}$$

96. (c) If the total length of journey be  $x$  km, then

$$\frac{x}{35} - \frac{x}{40} = \frac{15}{60}$$

$$\Rightarrow \frac{8x - 7x}{280} = \frac{1}{4}$$

$$\Rightarrow \frac{x}{280} = \frac{1}{4}$$

$$\Rightarrow x = \frac{1}{4} \times 280 = 70 \text{ km}$$

97. (b) C.P. of 20 articles

$$= \frac{100}{120} = ₹ \frac{5}{6}$$

$\therefore$  Number of articles bought for Re. 1.

$$= \frac{6}{5} \times 20 = 24$$

98. (a) Required increase

$$= \left( 25 + 12 + \frac{25 \times 12}{100} \right) \%$$

$$= 40\%$$

99. (a) Speed of ship = 30kmph

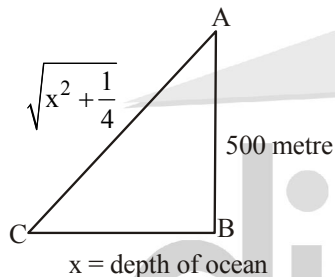
$$= \frac{30 \times 5}{18} \text{ m/sec.} = \frac{25}{3} \text{ m/sec.}$$

Time taken in covering 500 metre

$$= \frac{500 \times 3}{25} = 60 \text{ seconds}$$

Speed of radio waves

$$= \frac{200}{1000} \text{ km/sec.} = \frac{1}{5} \text{ km/sec.}$$



$$\therefore \frac{\sqrt{x^2 + \frac{1}{4}}}{\frac{1}{5}} + \frac{x}{\frac{1}{5}} = 60$$

$$\Rightarrow \sqrt{x^2 + \frac{1}{4}} + x = \frac{1}{5} \times 60 = 12$$

$$\therefore (12 - x)^2 = x^2 + \frac{1}{4}$$

$$\Rightarrow 144 + x^2 - 24x = x^2 + \frac{1}{4}$$

$$\Rightarrow 24x = 144 - \frac{1}{4} = \frac{575}{4}$$

$$\Rightarrow x = \frac{575}{4 \times 24} = 6 \text{ km}$$

100. (a) If the amount of loan taken from the first bank be ₹x, then

$$\frac{x \times 8 \times 1}{100} + \frac{(10000 - x) \times 10}{100} = 950$$

$$\Rightarrow 8x + 100000 - 10x = 95000$$

$$\Rightarrow 2x = 100000 - 95000 = 5000$$

$$\Rightarrow x = ₹2500$$

### ENGLISH LANGUAGE AND COMPREHENSION

1. (b) mortuary: a room or building in which dead bodies are kept, for hygienic storage or for examination, until burial or cremation.
2. (a) hangar: a large building with an extensive floor area, typically for housing aircraft.
3. (b) Lounge: a public room in a hotel, theatre, or club in which to sit and relax.
4. (c) Dawdle - waste time; be slow.
5. (c) aviary: a large cage, building, or enclosure for keeping birds in.
6. (b) pantheism- If you believe in pantheism, you see God in the whole world around you. Pantheism is a religious belief that includes the entire universe in its idea of God.
7. (a) graffiti: writing or drawings scribbled, scratched, or sprayed illicitly on a wall or other surface in a public place.
8. (a) pseudonym: a fictitious name, especially one used by an author.
9. (c) depraved: morally corrupt; wicked.
10. (a) Origami- the Japanese art of folding paper into decorative shapes and figures
11. (b) Correct Spelling is 'Annihilation'.
12. (d) Correct Spelling is 'Ameliorate'.
13. (b) Correct Spelling is 'Courageous'.
14. (d) Correct Spelling is 'Diabetes'.
15. (c) Correct Spelling is 'Anniversary'.
16. (c) Option (c) is the correct meaning.
17. (b) Option (b) is the correct meaning.
18. (c) Option (c) is the correct meaning.
19. (b) Option (b) is the correct meaning.
20. (d) Option (d) is the correct meaning.
21. (b) Change 'earn' into 'earned' as 'last year' denotes 'simple past tense'.
22. (d) No error.
23. (c) Change 'are' into 'is'. 'Relationship' is singular.

24. (d) Add 'the' before 'tradition'.
25. (a) Place 'was' after 'it', as the sentence is in simple past tense and passive form.
26. (a) Put 'could' after 'she' as the sentence is not a question.
27. (c) As the sentence is in simple past tense, change 'can't' into 'couldn't'.
28. (c) Change 'have' into 'has'. 'Any' takes singular helping verb.
29. (b) Remove 'he brought' after 'but also'.
30. (c) Change 'was slept' into 'was asleep' or 'was sleeping'.
31. (c) Replace 'stepping in' with 'stepping out'. Step out: leave a room or building for a short time.
32. (b) Replace 'leave' with 'leaves' as singular subject takes singular verb with it.
33. (d) No Error
34. (b) Replace 'and' with 'or'. As 'whether....or' is the correct conjunction pair.
35. (d) No Error
36. (d) No Error
37. (c) Replace verb 'conclusion' with 'adjective concluding'. 'Remark' being a noun will be qualified by an 'adjective' not by other 'noun'. Hence option C has the error.
38. (a) 'Either....or' being a connector should be placed properly in a sentence. Hence replace 'offered either to exchange' with 'offered to either exchange'.
39. (c) Avoid redundant use of the subject i.e. pronoun 'he' here. Hence replace 'he claimed he knew' with 'he claimed to know'.
40. (d) No error
41. (b) Modal Perfect changes accordingly.  
Sub + Modal + have + V3 + Object  
to Object + Modal + have + been + V3 + by + Sub.
42. (c) Can + Sub + V1 + object  
Can + Object + be + V3 + by + Sub.
43. (d) If any form of 'be' is used as main verb, the sentence can't be turned into passive.
44. (b) Sub + is/are/are/V1 + ing + Object  
Object + is/am/are + being + V3 + by + Subject.
45. (a) Sub + V2 + Object  
Object + was/were + V3 + by + Subject
- But certain verbs take fixed preposition after them that replace the 'by' of 'by + Sub'.  
For eg. amazed at, tired of, engulfed in filled with..... etc.
46. (b) Subject + has/have/had + to + V1 + object  
Object + has/have + had + to + be V3 + by + Sub.
47. (a) Active To + V1  
Passive To + be + V3.
48. (b) imperative sentences with object.  
Changes into Let + object + be + V3 in Passive Voice.
49. (c) Imperative sentence with object changes into you are ordered/requested/forbidden etc + to + v1 + object in Passive Voice or Let + object + be + v3 form.
50. (c) Options 'C' fits in the context.
51. (d) In imperative sentences, we use let to make passive voice. Hence option D is correct answer choice.
52. (a) We do not change of the tense of the sentence while converting active/passive to passive/active. In option B, C and D the tense has changed, hence option A is correct answer choice.
53. (c) Since, We do not change of the tense of the sentence while converting active/passive to passive/active, option A is eliminated on this ground. In B, we need plural verb but singular verb is used, hence B eliminated. Only option C is correct.
54. (d) The given sentence is in active voice, we need to change it in passive voice. make; a hole subject in passive voice, option D is correct answer.
55. (a) Option A is correct passive voice. In B, dealing is incorrect.
56. (a) Write "The leader's speech" as subject in passive voice. Make "The audience" object in passive voice. In B, verb is incorrect. Only option A is correct.
57. (b) In A, being is missing hence incorrect, in C and D the tense has changed hence incorrect, Only B is correct answer choice.
58. (a) Make vegetarians subject in passive voice, object you is not important in passive voice, hence option A is correct answer choice.
59. (c) Option C is correct answer. In B, to is incorrect. In A, pronoun "me" is incorrect. In D, use of "recommends" is incorrect.

60. (d) Write "These hunters" as subject in active voice, write plural verb „have for plural subject „These hunters . In A, B and C, tense has changed hence incorrect. Option D is correct.
61. (b) If we need two forms of the same verb in a sentence, we need to use both the forms.
62. (a) Sentence is in passive form.
63. (b) The sentence is in past tense.
64. (c) Sentence is in past tense.
65. (a) 66. (c) 67. (a)
68. (a) 'Present perfect continuous tense' is used for an action that started in past and still continuing.
69. (d) 70. (d)
71. (c) Impulsive: acting suddenly without thinking carefully for the result. Organized: arranged or planned in the way mentioned: able to plan your work.
72. (b) Inveterate: always doing something and unlikely to stop.
73. (d) Ascent: A rise to a higher social or professional rank.
74. (b) Exemplify: to be a typical example of something.
75. (b) Accused: A person who is charged with or on trial.  
Hence, Option 'b' fits in the context
76. (b) Spurious means false, although seeming to be true'.
77. (c) Latent means 'existing but not very noticeable'.
78. (b) 79. (a) 80. (b)
81. (d) discrimination means the practice of treating somebody less fairly than others
82. (c) endangered means to be in position in which you can be harmed or damaged'
83. (c) 84. (b) 85. (d)
86. (a) The most appropriate phrase will be 'lest you should fall' But out of the given alternatives 'lest you fall' can be used.
87. (d) In a nutshell is the correct use.
88. (b) 89. (a) 90. (b)
91. (a) The government has no choice but to curtail the subsidies in order to contain the increasing fiscal deficit
92. (b) Here room is denoted as space.
93. (b) Would have forms the result clause of a past unreal conditional.
94. (b) "will be taking . Giving an exam is something a doctor does to a patient, or something a teacher does to her students. Taking an exam is something a student does to prove their knowledge.
95. (a) Demolishes. Unless is already negative in meaning, hence, not is unnecessary.
96. (a) ON is use to express a surface of something and AT is used to point out specific time.
97. (c) Germany has more neighbours than any other European states.
98. (a) The given question expresses an event which took place in past. Hence in place of 'has' it should be '**had**'. Therefore replace 'has broken it' with '**had broken it**'.
99. (a) The correct phrase is 'to catch up with'. Hence, replace the bold part with option (A)
100. (a) When someone requires something we usually say that he is in need of something. after 'need' it should be 'of'. Therefore, replace the bold part with option (A).
101. (a) The first part of the sentence is written in Active Voice while the second part has been deliberately written in Passive Voice which is not appropriate. Hence the second part which is also bold part should be written in Active Voice. Hence option (A) is correct.
102. (b) Someone who is unconscious when recovers consciousness '**come round**' is used. Therefore, in place of 'out' it should be '**round**'.
103. (a) Insist is followed by subordinating conjunction "that" or the preposition "on". That introduces a subordinate clause while on is followed by a gerund phrase. Moreover, we insist on action (i.e. verb) and all the prepositions are followed by gerund. Hence, Insist on going will be correct.
104. (a) Lend means to give something to someone while borrow means to take something from someone. Hence option (a) makes the sentence meaningful.

105. (c) According to Question tag rule, An affirmative sentence takes negative question tag, Hence 'will you' will be changed to will not you but for negative question tag, we must use contracted form of 'helping verb' and 'not'. Therefore, 'won't you' will be used.
106. (b) 107. (a) 108. (c) 109. (b) 110. (c)  
111. (d) 112. (d) 113. (a) 114. (b) 115. (c)  
116. (a) 117. (b) 118. (d) 119. (c) 120. (c)  
121. (c) 122. (c) 123. (b) 124. (b) 125. (c)
126. (a) Reporting verb 'said' in Direct Speech Changes to Reporting verb 'said that' in Indirect Speech.  
Reported Speech in Present Indefinite Tense in Direct Speech Changes to Reported Speech in Past Indefinite Tense in Indirect Speech.  
Hence option (a) fits in the context.
127. (a) Reporting verb 'said to' in Direct Speech Changes to Reporting verb 'told' in Indirect Speech; and Reported Speech in Present Indefinite Tense in Direct Speech remains unchanged in Indirect Speech when the statement is a fact, habit, etc.
128. (d) When Reported Speech begins with 'Let' in sense of a suggestion in Direct Speech, then Reporting verb 'said' in Direct Speech Changes to Reporting verb 'proposed'/'suggested' in Indirect Speech  
Conversion Rule is Sub + propose/suggest + to + object + that + Sub + should + V (1st form) + .....  
Hence options '(d)' fits in the context.
129. (b)
130. (a) When 'Let' is used to allow in Reported Speech of Direct Narration.  
Then Conversion Rule is:  
Sub + requested/ordered + object + to allow + Sub + to + V + object + ...
131. (b) Explanation is same as Q.60
132. (a) This is the care of Negative command of Imperative sentence.  
Conversion rule: Sub + asked/told + object + not + to + V (1st form).  
Hence option A fits in the context.
133. (b) Conversion Rule is: Sub + forbade/forbid + object + to + V.
- Note: 'forbid' will never take negative words 'no', 'not' ahead of it.  
Hence option B fits in the context.
134. (c) Reported speech in Past Indefinite Tense in Direct Speech Changes to Reported Speech in Past Perfect Tense in Indirect Speech.  
Hence option C fits in the context.
135. (a) Reported Speech in Past Perfect Tense in Direct Speech remains same in Indirect Speech (i.e. the tense of the verb doesn't change)
136. (c) 137. (a) 138. (c) 139. (b) 140. (a)  
141. (d) 142. (d)
143. (b) If Reporting verb is in Present Tense, then there will be no change in the tense of verb of the Reported Speech.  
Therefore, 'says' will remain 'says' with the addition of 'that' in Indirect Narration.  
Hence option B is the correct option.
144. (a) Reporting verb 'said' in Direct Speech Changes to Reporting verb 'said that' in Indirect Speech.  
Reported Speech in Present Indefinite Tense in Direct Speech Changes to Reported Speech in Past Indefinite Tense in Indirect Speech.  
Hence option A fits in the context.
145. (b) Reporting verb 'said to' in Direct Speech Changes to Reporting verb 'told' in Indirect Speech and Reported Speech in Present Indefinite Tense in Direct Speech Changes to Reported Speech in Past Indefinite Tense in Indirect Speech.
146. (c) Belief means 'a strong feeling that something exists'.
147. (d) Out of the given alternatives 'something fits the blank appropriately.
148. (b) In the context of the sentence 'cannot' is the appropriate word.
149. (a) 'laws of nature' is the correct use.
150. (a) For instance means 'for example.
151. (c) In the context of the sentence 'crossing' is the appropriate word.
152. (d) Misfortune means 'bad luck'.
153. (a) Stick means 'to push a sharp object into something'

154. (c) Out of the given alternatives represents 'fits' the blank appropriately.
155. (c) In the context of the passage 'such things' is the appropriate use
156. (b) In the context of the passage 'weather' is clearly the appropriate word.
157. (b) All other options are clearly inappropriate.
158. (c) 'Summer is warmer than' is the appropriate phrase.
159. (a) 'but even in summer' is the appropriate phrase.
160. (d) Singular verb of simple present tense is required.
161. (b) In the context of the sentence 'shining' fits the blank appropriately.
162. (c) 'it starts raining' is the appropriate phrase.
163. (d) 'terribly chill' is the appropriate phrase.
164. (a) Present indefinite tense is required here.
165. (b) Out of the given alternatives only 'there' fits the blank appropriately
166. (b) We need adverb form of the verb 'lazy'. this word has been used for the verb 'rose', hence adverb form is required. "laziness" is noun form. "lazy" is verb form.
167. (d) "stood with his hands in the pockets of his dressing gown". Pockets is correct word to be filled in the given sentence.
168. (c) We need past perfect tense verb, hence 'had' is correct verb form. "Down the centre of Baker Street it had been ploughed into a brown crumbly band"
169. (b) "dangerously slippery". Since the sentence is about 'The grey pavement', hence 'slippery' is correct word.
170. (d) 'few' is used for number, for counting. here we need 'fewer' comparative degree adjective since 'than' is used in the latter part of the sentence.
171. (b) 172. (d) 173. (b) 174. (c) 175. (d)
176. (a) 177. (d) 178. (a) 179. (c) 180. (a)
181. (c) 182. (c) 183. (a) 184. (c) 185. (b)
186. (a) 'Bearing upon' means having the effect on.
187. (a) There is a close relationship between ambition and activity. Ambition is the inspiration for activity.
188. (c) Ambition must be consistent with one's capacities. If the capacities do not match with the ambition, then it results in failure.
189. (a) One must try to do their best in everything they do so as to achieve good results.
190. (b) One should not imagine oneself always to be better than the others. Others should always be treated as equal and one must concentrate on one's capacities instead of competing with others.
191. (c) 192. (c) 193. (d) 194. (c) 195. (a)
196. (b) 197. (b) 198. (c) 199. (b) 200. (c)