The following questions are accompanied by two statements A and B. You have to determine which statements(s) is/are sufficient/necessary to answer the questions.

41.An equilateral triangle is inscribed in a circle. What will be the difference between the area of circle and area of triangle?

(A) Radius of circle is given
(B) Sum of the perimeter of triangle and circle is given.

A. Statement **A** alone is sufficient to answer the question but statement **B** alone is not sufficient to answer the questions.
B. Statement **B** alone is sufficient to answer the question but statement **A** alone is not sufficient to answer the question.
C. Both the statements taken together are necessary to answer the questions, but neither of the statements alone is sufficient to answer the question.
D. Either statement **A** or statement **B** by itself is sufficient to answer the question.
E. Statements **A** and **B** taken together are not sufficient to answer the question.

42.Is 'n' even or odd, if n is a natural number.

(A) $2^n + 1$ is divisible by 3
(B) $4^n - 1$ is divisible by 3

A. Statement **A** alone is sufficient to answer the question but statement **B** alone is not sufficient to answer the questions.
B. Statement **B** alone is sufficient to answer the question but statement **A** alone is not sufficient to answer the question.
C. Both the statements taken together are necessary to answer the questions, but neither of the statements alone is sufficient to answer the question.
D. Either statement **A** or statement **B** by itself is sufficient to answer the question.
E. Statements **A** and **B** taken together are not sufficient to answer the question.

43.Five positive naturals numbers are given which may or may not be equal the sum of these numbers.
(A) If numbers are arranged is ascending order then median is 18 while sum of first and last number and second and fourth number is equal
(B) Median of these number is 18 while mode of these numbers is 12 and 24.

A. Statement **A** alone is sufficient to answer the question but statement **B** alone is not sufficient to answer the questions.
B. Statement **B** alone is sufficient to answer the question but statement **A** alone is not sufficient to answer the question.
C. Both the statements taken together are necessary to answer the questions, but neither of the statements alone is sufficient to answer the question.
D. Either statement **A** or statement **B** by itself is sufficient to answer the question.
E. Statements **A** and **B** taken together are not sufficient to answer the question.

44. 'X' mark up an article 50% above its cost price. Find the cost price of article.
(A) 'X' gave Rs 60 discount on mark price and earn 20% profit.
(B) If 'X' gave two successive discounts of 10% each then he will earn Rs 43 as profit.

A. Statement **A** alone is sufficient to answer the question but statement **B** alone is not sufficient to answer the questions.
B. Statement **B** alone is sufficient to answer the question but statement **A** alone is not sufficient to answer the question.

C. Both the statements taken together are necessary to answer the questions, but neither of the statements alone is sufficient to answer the question.

D. Either statement **A** or statement **B** by itself is sufficient to answer the question.

E. Statements **A** and **B** taken together are not sufficient to answer the question.

45. Amit tells truth 2 times out of x times while Ankush tells truth 5 times out of 'y' times. Find the product of 'x' and 'y'
(A) Probability that Amit and Ankush contradict with each other on facts is 50%
(B) Probability that both tells truth is 20%

A. Statement **A** alone is sufficient to answer the question but statement **B** alone is not sufficient to answer the questions.

B. Statement **B** alone is sufficient to answer the question but statement **A** alone is not sufficient to answer the question.

C. Both the statements taken together are necessary to answer the questions, but neither of the statements alone is sufficient to answer the question.

D. Either statement **A** or statement **B** by itself is sufficient to answer the question.

E. Statements **A** and **B** taken together are not sufficient to answer the question.

46. Train P leaves Delhi at 7 PM and is travelling at a speed of 80 kmph, 3 hours later another train Q leaves Delhi and is travelling in same direction as train P in how many time (in minutes) train Q will be 18 km ahead train P, if speed of train Q is 120 kmph?
A. 383 minutes
B. 387 minutes
C. 380 minutes
D. 377 minutes
E. 375 minutes

47. There are three points P, Q and R in a straight line in a river such that point Q is equidistant from point P and Point R. Boat travelled from point P to R downstream in 8 hours and from point Q to P upstream in 12 hours. Find the ratio between speed of boat in still water to speed of current?
A. 3:1
B. 2:1
C. 1:2
D. 5:2
E. 2:3

48. In a cold drink cartoon 3 pepsi, 5 limca and 7 sprites bottels. If one bottle is drawn at random from the cartoon what is the probability that it is either sprite or pepsi ?
A. 5/7
B. 3/4
C. 2/3
D. 8/9
E. None of these

49. Three containers having capacities in the ratio of 5 : 8 : 3 contain mixture of milk and water in the ratio 3 : 1, 3 : 2 and 2 : 1 respectively. If all three containers poured in a big container, then find ratio of milk to water in final mixture ?
A. 201/109
B. 211/109
C. 213/109
D. 191/109
E. none of these

50. Circumference of a circular garden is 66 cm and area of circular garden is 25% more than perimeter of a square hall. Find the area of square hall ?
A. 4802.49 sq cm
B. 4704.48 sq. cm
C. 4820.49 sq.cm
D. 4822.49 sq.cm
E. none of these

51. Efficiency of A and B in the ratio of 5 : 6. A work of first X days and B complete remaining work in (X + 4) days, ratio between work done by A to work done by B is 1 : 2. Find in how many days whole work will be complete, if they work alternatively starting with A and after B work with 50% of his usual efficiency ?

A. $26\frac{2}{5}days$

B. $24\frac{2}{5}days$

C. $18\frac{2}{5}days$

D. $20\frac{2}{5}days$

E. $22\frac{2}{5}days$

52. P and R entered into partnership business with the capital of Rs. x and Rs. (x + 12000), after One year Q joined them with capital of Rs. (x + 8000) at the end of 2nd year P and Q with draw their capital and R invest for one more year, if P, Q and R gets profit in the ratio of 8 : 6 : 21 respectively. Find sum of capital invested by all three ?
A. 66000 Rs.
B. 54000 Rs.
C. 64000 Rs
D. 68000 Rs.
E. 70000 Rs.

53. Cost price of a table is 20% more than cost price of a chair and shopkeeper marked up table at 25% above cost price and chair at 40% above cost price. If shopkeeper allowed discount of 20% on chair and 25% on table and difference between both selling price was 6 Rs. then find sum of marked price of 2 two table and three chair ?
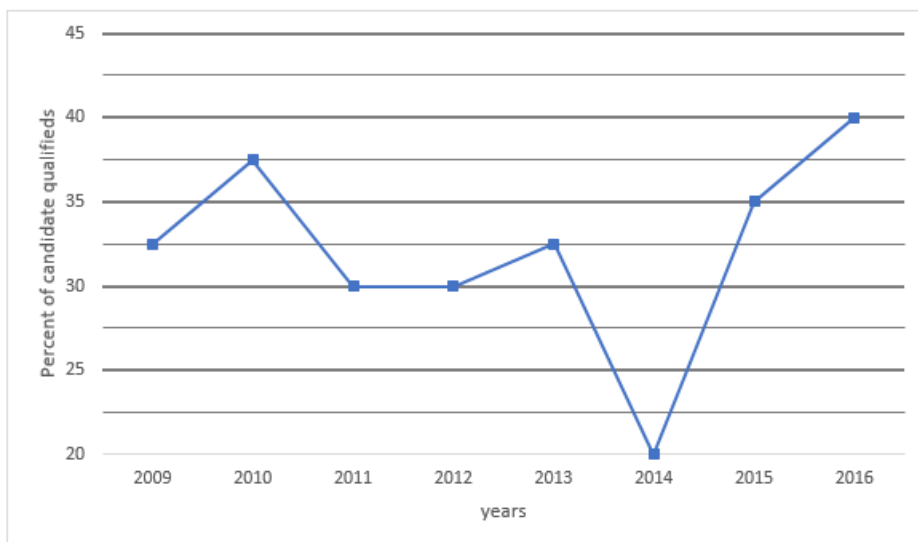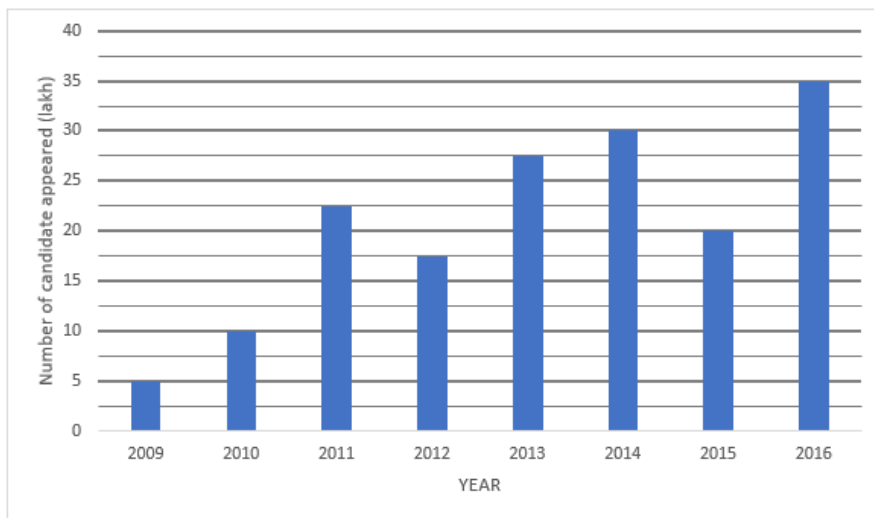A. 8840 Rs
B. 8260 Rs
C. 8460 Rs
D. 8640 Rs
E. 8530 Rs

54. A, B and C can complete da task in 24 day, 72 days and 48 days respectively if all three starts work alternatively A starts with A, then B and at last C and work of 36 days. Then A left the work. Find how many more days will be required in complete remaining work by B and C alternatively ?
A. 5 days
B. 14 days
C. 16 days
D. 18 days
E. 20 days

55. Mayank borrowed Rs. 48000 from a bank at $12\frac{1}{2}\%$ per annum compound interest at the end of 1st, 2nd and 3rd year, he paid 14000, 13000 and 16000 respectively. If he wanted to clear his loan at the end of 4th year, what would he pay at the end of the fourth year to clear his loan ?

A. 21000

B. 22500

C. 16800

D. 26000

E. None of these

Bar-graph shows number of candidate appeared (in lakh) in different years and line graph shows percentage of candidate qualified in examination over the years.

56. What was the ratio between number of candidates appeared in 2009 to Number of candidates qualified in 2016?

A. 14 : 15

B. 5 : 14

C. 3 : 7

D. 7 : 3

E. 15 : 7

57. What was the percent drop in the number of candidate appeared from year 2014-2015?

A. $66\frac{2}{3}\%$

B. 30%

C. 70%

D. $16\frac{2}{3}$

E. $33\frac{1}{3}\%$

58. The Number of candidate qualified in 2011 was what percent of the number of candidate appeared in 2010?
A. 68.5%
B. 70%
C. 32.5%
D. 67.5%
E. 65.7%
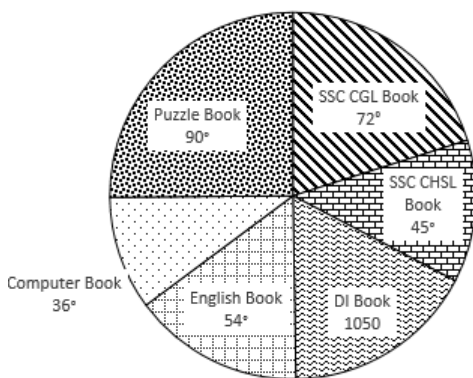
59. What is the average of candidates qualified in year's 2009 to 2012?
A. 443375
B. 437543
C. 434375
D. 475334
E. None of these

60. If ratio between male to female candidates qualified in year 2009 and 2010 together is 17 : 8, then find male qualified from both years how much more than female qualified from both year together?
A. 215200
B. 187500
C. 194500
D. 175500
E. 193500

Given below is the pie chart which shows the distribution of six books sold by bankersadda publication in degrees in one week. Table shows ratio of books sold online to sold from book store.
(**Note** – Sold DI books in one week in absolute value)

Books	Ratio of books sold online : book sold from book store
Puzzle book	23 : 52
DI book	16 : 19
SSC CGL book	11 : 13
CHSL book	12 : 13
English book	7 : 8
Computer book	5 : 7

61. If selling price of each SSC CHSL books is $11\frac{1}{9}\%$ less than the selling price of each English book, and total amount obtained in selling all SSC CHSL book is 1.5 lakh. Then find how much amount is obtained in selling all English books, which sold online ?
A. 96000 Rs.

B. 94000 Rs.
C. 94500 Rs.
D. 95400 Rs.
E. 94540 Rs.

62. Total DI book and Puzzle book sold online is what percent less or more than total computer and English books sold from store ?

A. $11\frac{21}{83}\%$

B. $12\frac{21}{83}\%$

C. $15\frac{21}{83}\%$

D. $14\frac{21}{83}\%$

E. $13\frac{21}{83}\%$

63. If 25% of Puzzle books and 20% of DI books sold from book store is returned by customers, because of misprinting, then find the number of DI and PUZZLE book which are returned by customers ?
A. 347
B. 374
C. 376
D. 367
E. 370

64. What is ratio between, Puzzle and DI books sold together to SSC CHSL, SSC CGL and English book sold together ?
A. 17:15
B. 17:21
C. 17:18
D. 17:19
E. 19:17

65. Total Computer and DI book sold online together, what percent of total SSC CGL book sold from store ?

A. $112\frac{4}{13}\%$

B. $113\frac{4}{13}\%$

C. $110\frac{4}{13}\%$

D. $111\frac{4}{13}\%$

E. $109\frac{4}{13}\%$

What comes at the place of question marks in below series :
66. 6, ?, 94, 168, 262, 376
A. 46
B. 40
C. 48
D. 42
E. 44

67. 300, 75, ?, 112.5, 675, 168.75

A. 460
B. 475
C. 450
D. 480
E. 440

68.42, 54, 78, ? 222, 414
A. 124
B. 106
C. 116
D. 126
E. 122

69.252, 189, ?, 106, 82, 67
A. 141
B. 131
C. 137
D. 139
E. 143

70.84, 166, ?, 658, 1314. 2626
A. 340
B. 310
C. 315
D. 320
E. 330

Table shows result of five states boards exam, percentage of total passed students out of total appeared students in each boards, percentage of boys passed out of total passed students and total number of schools in each boards. Some data are missing, which have to calculate according to given information in questions.

Boards	Passed % out of appeared	Boys passed% out of total passed	Total number of school in each state board
U.P. Board	64%	—	7500
M.P. Board	—	40%	5000
Rajasthan Board	—	65%	—
Delhi Board	80%	—	4500
Bihar Board	—	60%	—

71.If average number of students appeared from each schools of U.P board are 360 and out of total passed students $66\frac{2}{3}\%$ are girls. Find total passed boys in U.P. board are what percent of total students appeared in U.P board exam ?

A. $23\frac{1}{3}\%$

B. $22\frac{1}{3}\%$

C. $19\frac{1}{3}\%$

D. $20\frac{1}{3}\%$

72.If total passed boys in M.P board are 4.2 lakh and ratio between total passed students to total appeared students in that board is 7 : 10. Then average students appeared from each school in M.P. board is how much less than average students appeared from each school in U.P. board.(take average of students appeared from each school in U.P. board from previous question)
A. 65
B. 45
C. 50
D. 60

73.Total passed boys in Rajasthan board are 6.825 lakh and total passed students in Rajasthan board are 70% of total appeared students of that board. If average number of students appeared in Rajasthan board from each schools are 750, then find total number of schools in Rajasthan board ?
A. 2570
B. 2000
C. 1750
D. 1950
E. 2200

74.If total number of passed students in Delhi board are 28.8 lakh and ratio between total passed boys to total passed girls of that board is 4 : 5. Then find total passed girls are what percent of total students appeared in Delhi board ?

A. $40\frac{4}{9}\%$

B. $42\frac{4}{9}\%$

C. $44\frac{4}{9}\%$

D. $38\frac{4}{9}\%$

E. $46\frac{4}{9}\%$

75.If ratio between total appeared students to total passed students in Bihar board is 5 : 3 and total passed boys in Bihar state are 9 lakh. Find ratio between total schools in Delhi state board to Bihar board, if average of appeared from each schools in students Bihar board is 800 ?
A. 39 : 25
B. 37 : 25
C. 36 : 29
D. 36 : 25
E. 25 : 36

76.Ratio between speed of a truck and a bus is 17 : 18 and also a train covered 540 km in 21600 seconds. If speed of bus is 4/5 th of speed of train then find distance covered by truck in 18000 seconds ?
A. 320km
B. 340 km
C. 300km
D. 280km

E. 360km

77. A milkman have mixture of 280 l, which contains milk and water in the ratio 5 : 2. Milkman sold 84 l of mixture and mixed milk and water in the ratio of 3 : 1 in remain mixture. if ratio of milk to water in final mixture is 44 : 17, then find water percentage in final mixture ?

A. $26\frac{53}{61}\%$

B. $25\frac{53}{61}\%$

C. $27\frac{53}{61}\%$

D. $24\frac{53}{61}\%$

E. $23\frac{53}{61}\%$

78. Internal radius of pipe is 3 cm and the external radius of pipe is 5 cm and the length of pipe is 15 cm then find total surface area of pipe ?

A. $278 \pi \text{ cm}^2$

B. $275 \pi \text{ cm}^2$

C. $268\pi \text{ cm}^2$

D. $272 \pi \text{ cm}^2$

E. none of these

Correct Answer: D

Solution

$r = 3$ cm, $R = 5$ cm, $h = 15$ cm

Total surface area of pipe

$= 2\pi rh + 2\pi Rh + 2(\pi R^2 - \pi r^2)$

$= (2\pi \times 3 \times 15) + (2\pi \times 5 \times 15) + 2(5^2\pi - 3^2\pi)$

$= 90\pi + 150\pi + 32\pi$

$= 272\pi \text{ cm}^2$

79. To make an article, it takes 80 hour for a workman who is paid Rs 3.60 per hour. 25% of the material is wasted in the course of working, which costs Rs 45 per kilogram. At what price must the article be sold so as to yield a profit of 33.33%, if its weight was measured to be 16 kg?

A. Rs 360

B. Rs 404

C. Rs 396

D. Rs. 385

E. Rs. 369

80. Average age of Meena, Savita and Kavita is 96 years, however when Rita joins them, then the average comes down to 90. Now, Ankita whose age is 4 years more than Rita replaces Meena and the new average is 88 years. Find the age of Meena.

A. 72

B. 78

C. 76

D. 84

E. 79