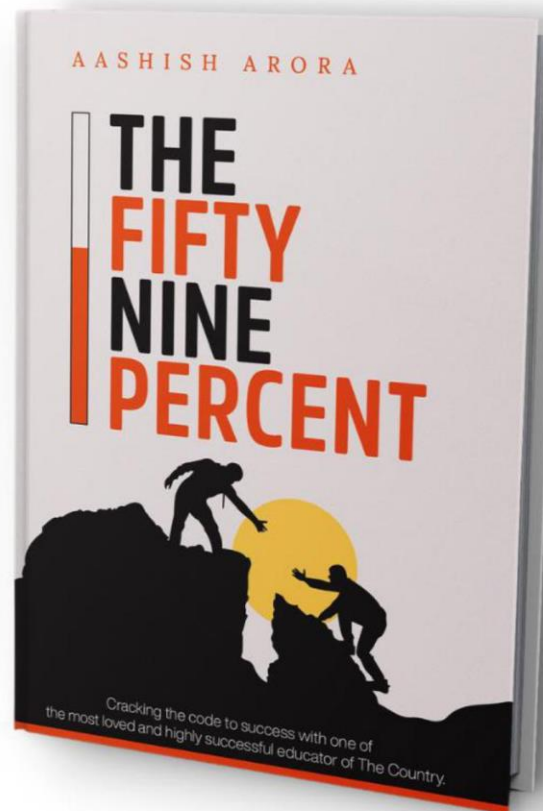# FOR SBI IBPS PO PRE

2025

13

QUANT CHECKLIST

Practice Module by Aashish Arora

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DEAR STUDENTS

We all dream about the day when we will crack XYZ examination, when will get a five-six-digit big salary, travel to all those beautiful places, buy new spacious house for our parents. Our entire focus is on the success, not the struggle. And it's totally understandable — because success is memorable , and everybody wants it, while the struggle is drab, disagreeable, and unattractive for the general public. But, it is the effort, struggling, and sticking to your resolutions that shapes you as a person. Success is a reward for giving your best, but it's not always within your control whether and when you get to enjoy it. Whenever you find yourself discouraged by your lack of success, remind yourself that it is not giving-up and working hard is your real reward. It's in your hands whether you allow yourself to see the rewards the struggle generates or ignore them, Whether you mindlessly see the end result as the sole indicator of success. I failed numerous times in life. I could have despaired that I had lost so much time and effort and money, but I hadn't really failed. I had been true to my values of pursuing the life I wanted. I kept going, despite the obstacles I constantly encountered along the way. Eventually my efforts paid off. But even if it would have taken longer to get my results — the struggle would still have been worth it for the immense changes I underwent on the journey to pursue my dreams. Eventually my efforts paid off, but even if it had taken longer to get the results — the struggle would still have been worth it for the immense changes I underwent on the journey to pursue my dreams.

Rise and Shine.

Aashish Arora

1. SIMPLIFICATION AND APPROXIMATION

1. $(646 \div 38) + (15 \times 22) + (11)^2 = x\% \ of \ 520 + 182$

   a. 54
   b. 55
   c. 56
   d. 57
   e. 58

2. $\left(\sqrt{841} - 15\% \ of \ 180\right)^3 + (13)^2 = x\% \ of \ 84 + (4 \times 39)$

   a. 25
   b. 30
   c. 35
   d. 40
   e. 45

3. $(4860 \div 36)\% \ of \ 280 + (7)^3 = 7x + 56$

   a. 80
   b. 85
   c. 90
   d. 95
   e. 75

4. $\sqrt{841} of (1470 \div 35) = \sqrt{x} + (589 + 613)$

   a. 196
   b. 225
   c. 256
   d. 289
   e. 324

5. $587 + 48\% \ of \ 2500 - 78\% \ of \ 1500 + 2^3 = 5^x$

   a. 3
   b. 2
   c. 6
   d. 5
   e. 4

6. $63 \div 2\frac{5}{8} \div 4\frac{4}{5} + (2.25 \times 8) = 207 \div x$

   a. 6
   b. 7
   c. 8
   d. 9

e. 10

7. $(88 \div 1.21) \times (264 \div 4.8) + 15^2 = (x)^2$

    a. 55

    b. 65

    c. 75

    d. 35

    e. 45

8. $(\sqrt{676} + 15\% \; of \; 80)\% \; of \; 650 = 24\% \; of \; 125 + 7x$

    a. 29

    b. 30

    c. 31

    d. 32

    e. 33

9. $140\% \; of \; (37.5\% \; of \; 144 + 66.66\% \; of \; 84) + (8)^3 = 9x$

    a. 74

    b. 70

    c. 66

    d. 82

    e. 78

10. $62.5\% \; of \; (25 \times 16) + 37.5\% \; of \; (25 \times 8) = (129 + 193 + x)$

    a. 18

    b. 33

    c. 129

    d. 13

    e. 3

11. $(24 \times \sqrt{1444}) - (32 \times \sqrt{256}) + (4)^4 = 16 \times x$

    a. 40

    b. 41

    c. 43

    d. 44

    e. 45

12. $(1529 + 1460) \div 49 + (15.49 + 29.86 + 35.65) = x + 1092 \div 13$

    a. 46

    b. 50

    c. 54

    d. 58

    e. 60

13. $14.28\% \; of \; 28\frac{4}{7}\% \; of \; 8.33\% \; of \; 8820 = (11)^2 + x$

    a. 81

    b. 71

    c. -71

    d. -81

e. -91

14. $33.33\% \ of \ (38^2 - 7^3) - (200 \ of \ 12 \div 15) = x$

    a. 207

    b. 217

    c. 187

    d. 197

    e. 227

15. $4913 + 6398 - 4529 + 1213 - 6539 = x$

    a. 1156

    b. 1256

    c. 1456

    d. 1496

    e. 1556

16. $48\% \ of \ 37.5\% \ of \ \left(\sqrt[5]{1024} \times 125 \right) = (5)^3 - x$

    a. 35

    b. 40

    c. 45

    d. 50

    e. 30

17. $\sqrt[3]{0.001728} + \sqrt[3]{6.859} + \sqrt{0.0841} = 10 - x$

    a. 8.69

    b. 7.39

    c. 7.69

    d. 6.69

    e. 8.39

18. $\sqrt{120 \div 0.75 + (9)^3 + 945 \div 7} = 2x$

    a. 14

    b. 16

    c. 18

    d. 20

    e. 22

19. $2\frac{4}{8} + 3\frac{5}{6} + 3\frac{3}{4} = x + 4\frac{1}{12}$

    a. 9

    b. 8

    c. 7

    d. 6

    e. 5

20. $(1008 \div 7)^{\frac{1}{2}} + (1521 \div 9)^{\frac{1}{2}} = x - (8019 \div 11)^{\frac{1}{3}}$

    a. 38

    b. 37

    c. 36

d. 35

e.34

SOLUTIONS:-

1. (b)
2. (a)
3. (d)
4. (c)
5. (e)
6. (d)
7. (b)
8. (c)
9. (a)
10. (e)
11. (b)
12. (d)
13. (e)
14. (a)
15. (c)
16. (a)
17. (c)
18. (b)
19. (d)
20. (e)

1) $\frac{646}{38} + 330 + 121 = \frac{x}{100} * 520 + 182$

$17 + 451 = \frac{52x}{10} + 182$

$468 - 182 = \frac{52x}{10}$

$\frac{286*10}{52} = x = 55$

2) $\left(29 - \frac{15}{100} * 180\right)^3 + 169 = \frac{x}{100} * 84 + 156$

$(29 - 27)^3 + 169 = \frac{84x}{100} + 156$

$2^3 + 169 - 156 = \frac{84x}{100}$

$21 = \frac{84x}{100} =$

$$x = \frac{21*100}{84} = 25$$

3) $\left(\frac{4860}{36}\right)\% \, of \, 280 + 343 = 7x + 56$

$135\% \, of \, 280 + 343 = 7x + 56$

$378 + 343 - 56 = 7x$

$\frac{665}{7} = x = 95$

4) $29 \, of \, \frac{1470}{35} = \sqrt{x} + 1202$

$29 * 42 = \sqrt{x} + 1202$

$1218 - 1202 = \sqrt{x}$

$16 = \sqrt{x} = 256$

5) $587 + \frac{48}{100} * 2500 - \frac{78}{100} * 150 + 8 = 5^x$

$587 + 1200 - 1170 + 8 = 5^x$

$1787 - 1162 = 5^x$

$625 = 5^x = 4$

6) $63 \div \frac{21}{8} \div \frac{24}{5} + 18 = 207 \div x$

$63 * \frac{8}{21} * \frac{5}{24} + 18 = \frac{207}{x}$

$5 + 18 = \frac{207}{x}$

$23 = \frac{207}{x}$

$x = \frac{207}{3} = 69$

7) $\left(\frac{88}{1.21}\right) * \left(\frac{264}{4.8}\right) + 225 = (x)^2$

$\frac{88*264*100*10}{121*48} + 225 = x^2$

$4000 + 225 = x^2$

$4225 = x^2 = 65$

8) $\left(26 + \frac{15}{100} * 80\right)\% \, of \, 650 = \frac{24}{100} * 125 + 7x$

$(26 + 12)\% \, of \, 650 = 30 + 7x$

$\frac{38}{100} * 650 = 30 + 7x$

$247 - 30 = 7x$

$\frac{217}{7} = x = 31$

9) $\frac{140}{100} * \left(\frac{3}{8} * 144 + \frac{2}{3} * 84\right) + 512 = 9x$

$\frac{140}{100} * (54 + 56) * 512 = 9x$

$154 + 512 = 9x$

$\frac{666}{9} = x = 74$

10) $\frac{5}{8} * 400 + \frac{3}{8} * 200 = 322 + x$

$250 + 75 = 322 + x$

$325 - 322 = x = 3$

11) $(24 * 38) - (32 * 16) + 256 = 16x$

$912 - 512 + 256 = 16x$

$656 = 16x$

$x = \frac{656}{16} = 41$

12) $\frac{2989}{49} + 81 = x + \frac{1092}{13}$

$61 + 81 = x + 84$

$142 = x + 84$

$142 - 84 = x = 58$

13) $\frac{1}{7} * \frac{2}{7} * \frac{1}{21} * 8820 = 121 + x$

$\frac{17640}{588} = 121 + x$

$30 = 121 + x$

$x = 30 - 121 = -91$

14) $\frac{1}{3} * (1444 - 343) - \left(\frac{200*12}{15}\right) = x$

$\frac{1}{3} * 1101 - 160 = x$

$367 - 160 = x$

$207 = x$

15) $113311 - 4529 + 1213 - 6539 = x$

$6782 + 1213 - 6539 = x$

$7995 - 6539 = 356$

16) $\frac{48}{100} * \frac{3}{8} * (4 * 125) = 125 - x$

$\frac{48}{100} * \frac{3}{8} * 500 = 125 - x$

$90 = 125 - x$

$x = 125 - 90 = 35$

17) $0.12 + 1.9 + 0.29 = 10 - x$

$2.31 = 10 - x$

$x = 10 - 2.31 = 7.69$

18) $\sqrt{\frac{120}{0.75} + 729 + \frac{945}{7}} = 2x$

$\sqrt{160 + 729 + 135} = 2x$

$\sqrt{1024} = 2x$

$32 = 2x$

$x = \frac{32}{2} = 16$

19) $\frac{20}{8} + \frac{23}{6} + \frac{15}{4} = x + \frac{49}{12}$

$\frac{60+92+90}{24} = x + \frac{49}{12}$

$\frac{242}{24} = x + \frac{49}{12}$

$\frac{121}{12} - \frac{49}{12} = x$

$\frac{72}{12} = x = 6$

20) $\left(\frac{1008}{7}\right)^{\frac{1}{2}} + \left(\frac{1521}{9}\right)^{\frac{1}{2}} = x - \left(\frac{8019}{11}\right)^{\frac{1}{3}}$

$$(144)^{\frac{1}{2}} + (169)^{\frac{1}{2}} = x - (729)^{\frac{1}{3}}$$

$$12^{2*\frac{1}{2}} + 13^{2*\frac{1}{2}} = x - 9^{3*\frac{1}{3}}$$

$$12 + 13 = x - 9$$

$$25 + 9 = x = 34$$

2. ARITHMETIC QUESTIONS

1. In how many ways can 4 boys and 4 girls can be seated in a row so that boys and girls are alternate?

कितने तरीकों से 4 लड़कों और 4 लड़कियों को एक पंक्ति में बैठाया जा सकता है ताकि लड़के और लड़कियाँ वैकल्पिक हों?

(a)1135

(b)1140

(c)1145

(d)1152

(e)None of these

2. Five times of the sum 'x' and (x-8.52) is ₹524.88. Find the approximate value of 'x'?

'x' और (x-8.52) के योग का पाँच गुना ₹524.88 है। 'x' का लगभग मान ज्ञात कीजिए?

(a)44

(b)46

(c)48

(d)50

(e)None of these

3. I buy two chairs for ₹1656. I sell one so as to lose 8% and the other so as to gain 15%. On the whole transaction I neither lose nor gain. What was the cost price of the chair sold at 15% profit? (in)

मैं 1656 में दो कुर्सियाँ खरीदता हूँ। मैं एक को 8% की हानि पर बेचता हूँ और दूसरी को 15% का लाभ पर बेचता हूँ। पूरे लेन-देन में मुझे न तो हानि हुई और न ही लाभ। 15% लाभ पर बेची गई कुर्सी का क्रय मूल्य क्या था? (₹में)

(a)576

(b)580

(c)586

(d)590

(e)None of these

4. A man can row 30 km upstream and 12 km downstream in 5 hours. Also, he can row 15 km upstream and 20 km downstream in 6 hours. Find the the speed of the man in still water.

एक आदमी 5 घंटे में 30 किमी धारा के प्रतिकूल और 12 किमी धारा के अनुकूल नाव चला सकता है। साथ ही, वह 6 घंटे में 15 किमी धारा के प्रतिकूल और 20 किमी धारा के अनुकूल नाव चला सकता है। स्थिर जल में आदमी की गति ज्ञात कीजिए।

(a)9 kmph

(b)9.5 kmph

(c)10 kmph

(d)10.5 kmph

(e)None of these

5. A train 'P' which is 250m long, can cross a platform, which is 200m long, in 15 seconds. The ratio of the speed of train P to that of train "Q" is 5:3. Find the length of train Q if it can cross a pole in 8 seconds.

एक ट्रेन 'P' जो 250 मीटर लंबी है, 200 मीटर लंबे प्लेटफॉर्म को 15 सेकंड में पार कर सकती है। ट्रेन P और ट्रेन "Q" की गति का अनुपात 5:3 है। ट्रेन Q की लंबाई ज्ञात कीजिए यदि वह एक खंभे को 8 सेकंड में पार कर सकती है।

(a)134m

(b)136m

(c)140m

(d)144m

(e)None of these

6. Find the greatest number of five digits which, on being divided by 4,5,6,7 leaves 2,3,4,5 as remainder respectively.

पाँच अंकों की वह सबसे बड़ी संख्या ज्ञात कीजिए जिसे 4,5,6,7 से विभाजित करने पर क्रमशः 2,3,4,5 शेष बचे।

(a)99952

(b)99954

(c)99958

(d)99968

(e)None of these

7. P starts a business with ₹4000. Q joins him after 2 months with ₹6000. R puts a sum of Rs.9000 in the business for 6 months only. At the end of the year, a total profit of ₹4125 is earned. What will be the R's share?

P ने ₹4000 के साथ एक व्यवसाय शुरू किया। 2 महीने बाद Q ₹6000 के साथ उससे जुड़ गया। R ने 6 महीने के लिए ही व्यवसाय में 9000 की राशि लगाई। वर्ष के अंत में, कुल 4125 का लाभ अर्जित हुआ। R का हिस्सा क्या होगा?

(a)625

(b)650

(c)675

(d)695

(e)None of these

8. The number of seats in a cinema hall is increased by 30%. The price on a ticket is also increased by 10%. What is the effect on the revenue collected?

एक सिनेमा हॉल में सीटों की संख्या 30% बढ़ जाती है। टिकट की कीमत भी 10% बढ़ जाती है। एकत्रित राजस्व पर इसका क्या प्रभाव पड़ता है?

(a)39%

(b)40%

(c)41%

(d)43%

(e)None of these

9. A sum of 1880 is lent out in two parts one at 11% and the other 19%. If the total annual income is ₹263.2 the money lent at 11% is?

1880 की राशि को दो भागों में उधार दिया जाता है, एक 11% और दूसरा 19% पर। यदि कुल वार्षिक आय 263.2 है तो 11% पर उधार दिया गया धन कितना है?

(a)1170

(b)1175

(c)1180

(d)1185

(e)None of these

10. In a football tournament, there were 378 matches played. Every team played one match with each other. The number of teams participating in the tournament is ?

एक फुटबॉल टूर्नामेंट में 378 मैच खेले गए। प्रत्येक टीम ने एक दूसरे के साथ एक मैच खेला। टूर्नामेंट में भाग लेने वाली टीमों की संख्या कितनी है?

(a)32

(b)33

(c)28

(d)25

(e)None of these

11. A can do a piece of work in 30 days. B can do 50% of same work in 24 days. A, B and C together can do the whole work in 240/32 days. What is the ratio of the efficiencies of A, B and C?

A किसी काम को 30 दिन में पूरा कर सकता है। B उसी काम के 40% को 24 दिन में पूरा कर सकता है। A, B और C मिलकर पूरे काम को 240/32 दिन में पूरा कर सकते हैं। A, B और C की कार्यकुशलता का अनुपात क्या है?

(a)7:5:18

(b)8:5:19

(c)8:6:9

(d)8:7:19

(e)None of these

12. The ratio of the length of a rectangle, breadth of the rectangle and radius of a circle is 13:7:21. If the area of rectangle is 117936 m². Find the circumference of the circle (in m)

एक आयत की लंबाई, चौड़ाई और वृत्त की त्रिज्या का अनुपात 13:7:21 है। यदि आयत का क्षेत्रफल 117936 वर्ग मीटर है। वृत्त की परिधि (मीटर में) ज्ञात कीजिए।

(a)4744

(b)4748

(c)4750

(d)4752

(e)None of these

13. The marked price of a product is 75% above the cost price and discount is 28.56%. If the profit earned by the seller is Rs 5200. Find the sum of cost price and marked price.

किसी वस्तु का अंकित मूल्य लागत मूल्य से 75% अधिक है तथा छूट 28.56% है। यदि विक्रेता द्वारा अर्जित लाभ 5200 रुपये है, तो लागत मूल्य तथा अंकित मूल्य का योग ज्ञात कीजिए।

(a)28400

(b)27500

(c)28600

(d)28700

(e)None of these

14. The ratio of the speed of boat in still water and speed of stream is 8:3 and time taken by boat to go upstream and downstream (same distance = 110 km) is 12 hours. Find the speed of downstream.

शांत जल में नाव की गति और धारा की गति का अनुपात 8:3 है तथा नाव द्वारा धारा के प्रतिकूल और धारा के अनुकूल जाने में लिया गया समय (समान दूरी = 110 किमी) 12 घंटे है। धारा के अनुकूल जाने की गति ज्ञात कीजिए।

(a)88/3 km/hr

(b)90/3 km/hr

(c)92/3 km/hr

(d)94/3 km/hr

(e)None of these

15. Rs P is invested for two years at 6.66% p.a. CI. The interest received from this is Rs 496. When Rs (P+125) is invested at 20% p.a. at SI for 2 years. What will be the amount received?

रु. P को 2 वर्षों के लिए 6.66% वार्षिक ब्याज दर पर निवेश किया जाता है। इससे प्राप्त ब्याज रु. 496 है। जब रु. (P+125) को 20% वार्षिक ब्याज दर पर 2 वर्षों के लिए निवेश किया जाता है, तो प्राप्त राशि क्या होगी

(a)5050

(b)5115

(c)5215

(d)5225

(e)None of these

16. A water tank normally takes 14 hours to be filled by a tap but because of the leak, it takes another 4 hours. In how many hours will the leak empty a full water tank?

एक पानी की टंकी को नल से भरने में सामान्यतः 14 घंटे लगते हैं, लेकिन रिसाव के कारण, इसमें 4 घंटे और लगते हैं। रिसाव के कारण एक भरी हुई पानी की टंकी कितने घंटों में खाली हो जाएगी?

(a)60 hrs

(b)61 hrs

(c)62 hrs

(d)63 hrs

(e)None of these

17. A mixture of alcohol and water contains 85 litres of alcohol and (3x+20) litres of water. Another mixture contains 95 litres of alcohol and x litres of water. When both the mixtures are mixed together then the ratio of alcohol to water becomes 15:8. Find the value of (x+240).

शराब और पानी के मिश्रण में 85 लीटर शराब और (3x+20) लीटर पानी है। दूसरे मिश्रण में 95 लीटर शराब और x लीटर पानी है। जब दोनों मिश्रणों को एक साथ मिलाया जाता है तो शराब और पानी का अनुपात 15:8 हो जाता है। (x+240) का मान ज्ञात कीजिए

(a)259

(b)269

(c)279

(d)289

(e)None of these

18. A and B together complete a piece of work in 30 days and B and C together can complete the same work in 45 days. If A and B together worked for 8 days and then B and C together worked for 9 days and A and C together completed rest of the work in 16 days. Find the ratio of the efficiencies of B, C and A respectively.

A और B मिलकर एक काम 30 दिन में पूरा करते हैं और B और C मिलकर उसी काम को 45 दिन में पूरा कर सकते हैं। यदि A और B मिलकर 8 दिन काम करते हैं और फिर B और C मिलकर 9 दिन काम करते हैं और A और C मिलकर शेष काम 16 दिन में पूरा करते हैं। क्रमशः B, C और A की कार्यकुशलता का अनुपात ज्ञात कीजिए।

(a)1:2:1

(b)2:1:1

(c)1:1:2

(d)2:3:1

(e)None of these

19. In how many ways the word "HORSE" be arranged so that all vowels and consonants come together?

शब्द "HORSE" को कितने तरीकों से व्यवस्थित किया जाए ताकि सभी स्वर और व्यंजन एक साथ आ जाएं?

(a)24

(b)22

(c)20

(d)18

(e)None of these

20. A train passes a platform in 40 seconds and a man standing on the platform in 28 seconds. If the speed of the train is 72km/hr , what is the length of the platform ?

एक ट्रेन एक प्लेटफॉर्म को 40 सेकंड में पार करती है और प्लेटफॉर्म पर खड़े एक व्यक्ति को 28 सेकंड में पार करती है। यदि ट्रेन की गति 72 किमी/घंटा है, तो प्लेटफॉर्म की लंबाई क्या है?

(a)480 m

(b)386 m

(c)290 m

(d)292 m

(e)None of these

Answers

(1)d

(2)e

(3)a

(4)b

(5)d

(6)c

(7)e

(8)d

(9)b

(10)c

(11)b

(12)d

(13)e

(14)a

(15)c

(16)d

(17)a

(18)b

(19)a

(20)e

Solutions

1. Boys can sit in 4! ways and girls can sit in 4! ways

=> Total arrangement:- 4!×4!

 => 24×24 = 576 ways

Required no of ways:- 576+576= 1152

2. 5(x+x-9) = 525 (approx. value taken)

  => 10x- 45= 525

    10x= 570 = x = 57

3. By allegation,

   -8%.   +15%

          0%

   15   8

=> Cost = 1656/23×15 = 1080

=> 1656-1080= 576 (ans)

4.   30/v-s + 12/v+s = 5 ………….(1)   x= v-s

    15/v-s + 20/v+s = 6 …………..(2)   y= v+s

So , 30/x +12/y = 5 and 15x+20y= 6

 By solving both the equations , x= 15 , y =4

  V=9.5 kmph and s= 5.5 kmph

5. Sp×15 = 250+200

=> Sp= 30 m/s

Speed of train Q:- 30/5×3 = 18

Length of train Q:- 18×8 = 144m (ans)

6. LCM of 4,5,6,7 = 420

=> Greatest no. of 5 digit= 99999

Dividing 99999 by 420, we get 39 as remainder.

Hence, the 5 required 5 digit no. = 99999-39= 99960

Since, 4-2= 2; 5-3=2 ; 6-4=2

The remainder in each case is less than the divisior by 2

So, 99960 - 2 = 99958 (ans)

7. Profit ratio will be:-

    P.   Q.   R

4000×12.   6000×10.   9000×6

  8   :   10   :   9

R's share:- 9/27of 4125 = 1375 (E)

8. 30+10+30/100×10 = 43% increase

9. By allegation,

=>Overall ratio of interest:- 263.2/1880×100 = 14%

11%.   19%

        14%

5   3

Ratio= 5:3

Thus, sum lent at 11%:- 1880/8×5= rs1175

10. n(n-1) / 2 = 378

=> n(n-1) = 756

=> n = 28 (ans)

11. A=30 days
   => B= 24(50% work) = 48 days(50% work)
=> A+B+C = 240/32 days

Let the total work be LCM of 30, 48 and 240/32 = 240
A`s one day work = 8
B`s one day work = 5
(A+B+C) 1 day work = 32

Ratio of efficiency of A,B, and C = 8:5:19

12. Ratio of length, breadth and radius = 13:7:21

Let the length be 13x, breadth be 7x and radius be 21x
=> area of rectangle:- $91x^2$

=> $91x^2$ = 117936

=> x^2 = 1296
=> x= 26

Radius = 21*36

Circumference of circle = 2*22/7*21*36 = 4752

13. Ratio of CP, SP and MP = 4:5:7

=> 1 units = rs 2600

=> 11 units = Rs. 57200

Sum of CP and SP = rs 28600

14. Ratio of speed of boat and water = 8:3

=> let the speed of boat be 8x and speed of water be 3x

So, 110/11x+110/5x = 12

=> x= 8/3

Speed of downstream = 11*8/3 = 88/3 km/hr

15. ratio of principal and amount = 225:256

=> 31 units= rs 496

=> 1 unit = rs 16

=> 225 units = rs 3600 or P = 3600

Now,

P+125 = 3725

SI on rs 3725 at 20% = rs 1490

Required amount:- ₹3725+1490 = rs 5215

16. | | Hours | | Efficiency |
|---|---|---|---|
| Tap | 14 | 126 | 9 |
| Tap + Leak | 18 | 126 | 7 |

Time taken to empty the tank = 126/2 =63 hrs

17. A/Q,

180/4x+20 = 19/8

=> X = 19

=> x+240 = 259 (ans)

18. A+B = 30

   B+C = 45

Let the total work be 90

Work done by A and B in 1 day = 3

Work done by A and B in 8 days:- 8×3=24

Work done by B and C in 1 day = 2

Work done by B and C in 9 days:- 9×2=18

Remaining work = 48

Work done by A and C in 1 day:- 48/16 = 3

Ratio of efficiency of A, B and C = 2:1:1

19. Number of vowels = 2

    Number of consonants = 3

No. of ways 2! × 3! X 2% = 24 (ans)

20. Speed of train = 72*5/18 = 20m/s

Time to cross the the man = 28 sec

Time to cross the platform =40 sec

Length of train = 20*28 =560 m

 So, to calculate length of platform = T+P/40 =20

   560+P= 800

   P = 800-560 = 240 m

3. Quadratic Equations

In each of the following questions, there are two equations. You have to solve both equations and mark the correct answer.

(a) x > y

(b) x < y

(c) x = y or the relationship cannot be established

(d) x ≥ y

(e) x ≤ y

1.) I. $7x^2 - 23x + 18 = 0$

   II. $2y^2 - 11y + 15 = 0$

2.) I. $x^2 - 21x + 104 = 0$

   II. $y^2 - 30y + 224 = 0$

3.) I. $5x^2 - 41x + 84 = 0$

   II. $6y^2 - 48y + 96 = 0$

4.) I. $x^2 + 6x - 112 = 0$

   II. $y^2 - 22y + 117 = 0$

5.) I. $3x^2 - 24x + 48 = 0$

   II. $8y^2 - 56y + 96 = 0$

6.) I. $x^2 - 26x + 169 = 0$

   II. $y^2 - 12y + 35 = 0$

7.) I. $2x^2 - 16x + 32 = 0$

   II. $4y^2 - 28y + 48 = 0$

8.) I. $x^2 - 34x + 208 = 0$

   II. $4y^2 - 44y + 112 = 0$

9.) I. $12x^2 - 65x + 88 = 0$

   II. $16y^2 + 30y - 124 = 0$

10.) I. $x^2 - 19x + 84 = 0$

   II. $y^2 - 29y + 208 = 0$

11.) I. $6x^2 - 47x + 80 = 0$

   II. $2y^2 - 9y + 10 = 0$

12.) I. $x^2 - 16x + 63 = 0$

   II. $y^2 - 27y + 162 = 0$

13.) I. $3x^2 - 23x + 40 = 0$

   II. $3y^2 - 22y + 40 = 0$

14.) I. $x^2 - 42x + 441 = 0$

II. $y^2 - 44y + 484 = 0$

15.) I. $3x^2 - 26x + 56 = 0$

II. $7y^2 - 45y + 72 = 0$

16.) I. $x^2 + 22x - 203 = 0$

II. $y^2 - 24y + 119 = 0$

17) I. $15x^2 - 11x - 12 = 0$

II. $20y^2 - 49y + 30 = 0$

18.) I. $x^2 - 29x + 210 = 0$

II. $y^2 - 27y + 182 = 0$

19.) I. $5x^2 - 33x + 52 = 0$

II. $6y^2 - 42y + 72 = 0$

20.) I. $x^3 = \sqrt{19683}$

II. $y^2 - 54y + 729 = 0$

Answers:

1. B

2. B

3. D

4. B

5. D

6. A

7. D

8. A

9. A

10. B

11. D

12. E

13. C

14. B

15. A

16. E

17. C

18. D

19. C

20. B

Answers:

(1) x = 9/7,2

y = 3,-11

(2) x = 13,8

y = 14,16

(3) x = 21/5,4

y = 4,4

(4) x = -14,8

y = 13,9

(5) x = 4,4

y = 4,3

(6) x = 13,13

y = 7,5

(7) x = 4,4

y = 4,3

(8) x= 26,8

y= 4,7

(9) x = 11/4, 8/3

y = -31/8 ,2

(10) x = 12,7

y = 13,16

(11) x= 5/2, 16/3

y = 2,2.5

(12) x = 9,7

y = 18,9

(13) x = 5,8/3

y = 4,10/3

(14) x= 21,21

y= 22,22

(15) x= 14/3,4

y= 24/7,3

(16) x = -29,7

y = 17,7

(17) x = 4/3,-3/5

y = 5/4,6/5

(18) x = 14,15

y = 14,13

(19) x = 4,13/5

y = 4,3

(20) x= 3,3,3

y= 27, 27

4. WRONG NUMBER SERIES

1. 98,114,150,214,296,395
    a.98
    b.114
    c.214
    d.296
    e.395
2. 219,388,597,849,1143,1479
    a.219
    b.388
    c.597
    d.1143
    e.1479
3. 195,203.5,213.7,224.6,239.2,254.5
    a.203.5
    b.213.7
    c.224.6
    d.239.2
    e.254.5
4. 1902,1980,2071,2192,2358,2584
    a.1902
    b.1980
    c.2071
    d.2358
    e.2584
5. 189,193,337,821,1845,3607
    a.189
    b.193
    c.821
    d.1845
    e.3607
6. 618,593,809,760,1273,1191
    a.618
    b.809

c.760

d.1273

e.1191

7. 72,88,124,260,634,1922

a.72

b.88

c.260

d.634

e.1922

8. 748,649,500,311,52, −247

a.748

b.500

c.311

d.52

e.-247

9. 129,127,133,142,169,250

a.129

b.127

c.133

d.142

e.250

10. 259,284,312,343,375,414

a.414

b.284

c.312

d.343

e.375

11. 250,224,202,182,164,148

a.250

b.224

c.182

d.164

e.148

12. −7560, −15120, −30240, −4032, −1152, −256

a. -7560

b. -15120

c. -30240

d. -4032

e. -1152

13. 6,10,8,16,12,24

a. 6

b. 10

    c. 8

    d. 16

    e. 24

14. 1168,1080,938,748,518,248

    a. 1080

    b. 938

    c. 748

    d. 518

    e. 248

15. 1169,1221,1292,1386,1511,1689

    a.1169

    b.1221

    c.1386

    d.1511

    e.1689

16. 75,88,178,628,2428,7828

    a.75

    b.88

    c.178

    d.2428

    e.7828

17. −128,380,715,919,1008,1008

    a. -128

    b. 380

    c. 715

    d. 919

    e. 1008

18. 142,208,340,528,802,1132

    a. 208

    b. 340

    c. 528

    d. 802

    e. 142

19. 189,248,359,528,781,1134

    a. 248

    b. 359

    c. 528

    d. 781

    e. 1134

20. 221,251,318,393,433,477

    a. 221

    b. 251

c. 393

d. 433

e. 477

SOLUTIONS:-

1. (d)
2. (b)
3. (c)
4. (a)
5. (e)
6. (d)
7. (a)
8. (c)
9. (b)
10. (e)
11. (a)
12. (c)
13. (b)
14. (d)
15. (e)
16. (a)
17. (d)
18. (c)
19. (b)
20. (e)

1) Composite number square add
   $+4^2, +6^2, +8^2, +9^2, +10^2$
2) +(21*8)
   +(21*10)
   +(21*12)
   +(21*14)
   +(21*16)
3) Double difference
   +8.5
   +10.2
   +11.9
   +13.6

+15.3

4) Double difference

+76

+91

+121

+166

+226

5) $+2^2, +12^2, +22^2, +32^2, +42^2$

6) $-5^2, +6^3, -7^2, +8^3, -9^2$

7) *1)+4

*1.5)-8

*2)+12

*2.5)-16

*3)+20

8) -99

-149

-199

-249

-299

9) $+3^0, +3^1, +3^2, +3^3, +3^4$

10) First two digit add

259+25

284+28

312+31

343+34

377+37

11) First two digit subtract

248-24

224-22

202-20

182-18

164-16

12) /0.5

/1.5

/2.5

/3.5

/4.5

13) *2

-4

*2

-4

*2

14) Double difference

-88

-142

-190

-232

-268

15) Double difference

+52   +71   +94   +125   +168

    +19   +23   +31   +43

16) +15   +90   +450   +1800   +5400

        *6   *5   *4   *3

17) $+(8^3 - 4), +(7^3 - 8), +(6^3 - 16), +(5^3 - 32), +(4^3 - 64)$

18) +(11*6)

+(11*12)

+(11*18)

+(11*24)

+(11*30)

19) Double difference

+59

+108

+172

+253

+353

20) Composite number

$(15^2 - 4)$

$(16^2 - 5)$

$(18^2 - 6)$

$(20^2 - 7)$

$(21^2 - 8)$

$(22^2 - 9)$

5. MISSING NUMBER SERIES

1. ?,1560,520,1820,455,2047.5
   a.1040
   b.520
   c.390
   d.624
   e.780
2. 1369,1428,1512, ? ,2755,4914
   a.2041
   b.1881
   c.1821
   d.1791
   e.1751
3. 185,257,327,393,453, ?
   a.515
   b.525
   c.485
   d.495
   e.505
4. 368,460, ? ,709,870,1058
   a.593
   b.573
   c.543
   d.503
   e.513
5. 85536,14256,4752,2376, ? ,1320
   a.1584
   b.1284
   c.1484
   d.1784
   e.1824
6. 88,279,528,843, ? ,1703
   a.1142

b.1332

c.1292

d.1232

e.1192

7. ?,480,48,720,36,900

a.120

b.96

c.4800

d.2400

e.160

8. 16,6,10,?,26,55

a.18

b.20

c.9

d.12

e.15

9. 248,331,453,624,854,?

a.953

b.993

c.1053

d.1093

e.1153

10. 293,478,700,959,?,1588

a.1255

b.1215

c.1155

d.1105

e.1315

11. 571,746,1393,5324,?,19118

a.9569

b.9549

c.9459

d.9559

e.9579

12. 195,211.3,228,?,263.2,281.3

a.244.3

b.245.3

c.246.5

d.241.3

e.240.8

13. 153,164,142,?,98,274

a.175

b.180

c.186

d.197

e.208

14. $?, 2850, 950, 3800, 760, 4560$

a.8550

b.950

c.5700

d.4275

e.1425

15. $-1125, -1116, -1017, -18, ?$

a.6981

b.7081

c.8191

d.9071

e.9981

16. $2029, 1517, 1174, ?, 833, 769$

a.978

b.968

c.958

d.948

e.988

17. $?, 107, 170, 283, 471, 759$

a.85

b.79

c.75

d.69

e.65

18. $646, 767, ?, 1225, 1586, 2115$

a.963

b.992

c.945

d.911

e.936

19. $289, 378, 456, 512, ?, 548$

a.524

b.520

c.534

d.532

e.528

20. $?, -119, -167, -252, -378, -587$

a.-85

b.-89

c.-95

d.-99

e.-105

SOLUTIONS:-

1. (d)
2. (c)
3. (e)
4. (b)
5. (a)
6. (d)
7. (b)
8. (c)
9. (e)
10. (a)
11. (d)
12. (b)
13. (c)
14. (e)
15. (e)
16. (c)
17. (d)
18. (e)
19. (a)
20. (b)

1) *2.5
   /3
   *3.5
   /4
   *4.5

2) double difference of square

   +59   +84   +309   +934   +2159

   $+5^2$ $+15^2$ $+25^2$ $+35^2$

3) +(9*8)
   +(10*7)
   +(11*6)
   +(12*5)

+(13*4)

4) $+(9^2 + 11), +(10^2 + 13), +(11^2 + 15), +(12^2 + 17), +(13^2 + 19)$

5) *1/6

   *2/6

   *3/6

   *4/6

   *5/6

6) $+(14^2 - 5), +(16^2 - 7), +(18^2 - 9), +(20^2 - 11), +(22^2 - 13)$

7) *5

   /10

   *15

   /20

   *25

8) *0.5)-2

   *1)+4

   *1.5)-6

   *2)+8

   *2.5)-10

9) Double difference

   +83

   +122

   +171

   +230

   +299

10) Double difference

   +185

   +222

   +259

   +296

   +333

11) Reverse of digit add

   571+175

   746+647

   1393+3931

   5324+4235

   9559+9559

12) Prime number add

   +16.3

   +16.7

   +17.3

   +17.9

   +18.1

13) +11

-22

+44

-88

+176

14) *2

/3

*4

/5

*6

15) +9

+99

+999

+9999

16) $-8^3, -7^3, -6^3, -5^3, -4^3$

17) Double difference

+38

+63

+113

+188

+288

18) $+(11)^2, +(13)^2, +(17)^2, +(19)^2, +(23)^2$

19) Last two digit add

289+89

378+78

456+56

512+12

524+24

20) $-(15*2)$

-(16*3)

-(17*5)

-(18*7)

-(19*11)

6. DATA INTERPRETATION

SET 1. The bar graph provided displays the number of cars sold by five distinct companies along with the percentage of cars unsold by each of these companies.

Note: The total number of cars manufactured equals the sum of the number of cars sold and the number of cars unsold.

दिया गया बार ग्राफ पाँच अलग-अलग कंपनियों द्वारा बेची गई कारों की संख्या और प्रत्येक कंपनी द्वारा बिना बिकी कारों के प्रतिशत को दर्शाता है।

नोट: कुल निर्मित कारों की संख्या = बेची गई कारों की संख्या + बिना बिकी कारों की संख्या।

Toyota — 37.5% — 7500
Tata — 30% — 14000
Ford — 35% — 9750
Maruti — 45% — 9900
Hundai — 40% — 13200

■ percentage of cars unsold   ■ number of cars sold
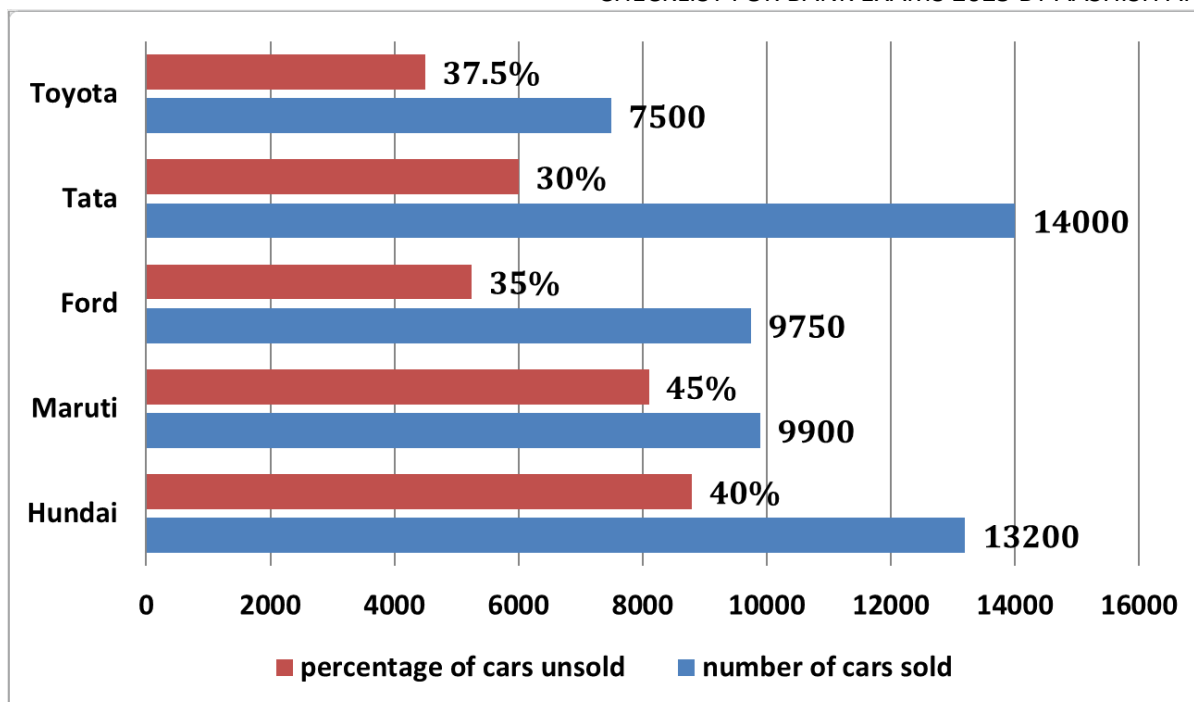
1. If the number of cars sold and unsold by MG Hector are 11.11% more and 20% less than the number of cars sold and unsold by Maruti, respectively, then determine the difference between the number of cars unsold by MG Hector and those unsold by Toyota.

   यदि MG Hector द्वारा बेची और बिना बिकी गई कारों की संख्या मारुति द्वारा बेची और बिना बिकी गई कारों की संख्या से क्रमशः 11.11% अधिक और 20% कम है, तो MG Hector द्वारा बिना बिकी गई कारों और टोयोटा द्वारा बिना बिकी गई कारों की संख्या के बीच का अंतर ज्ञात करें।

   (a) 1290
   (b) 1620
   (c) 1980
   (d) 1840
   (e) None of these

2. The total number of cars manufactured by Toyota is what percent of the total number of cars manufactured by Tata?

   टोयोटा द्वारा निर्मित कुल कारों की संख्या, टाटा द्वारा निर्मित कुल कारों की संख्या का कितने प्रतिशत है?

(a) 45%
(b) 60%
(c) 40%
(d) 75%
(e) None of these

3. Of all the vehicles that Toyota manufactured, 31.25% are top models, with remaining are base models. How much more or less than the number of cars sold by Tata are the number of base model cars that Toyota has unsold If the number of top model cars sold by Toyota is equal to 33.33% of the number of cars unsold by Maruti?
   टोयोटा द्वारा निर्मित सभी वाहनों में से 31.25% टॉप मॉडल हैं, और शेष बेस मॉडल हैं। टोयोटा द्वारा बिना बिकी गई बेस मॉडल कारों की संख्या, टाटा द्वारा बेची गई कारों की संख्या से कितनी अधिक या कम है, यदि टोयोटा द्वारा बेची गई टॉप मॉडल कारों की संख्या मारुति द्वारा बिना बिकी गई कारों की संख्या के 33.33% के बराबर है?
   (a) 10550 less
   (b) 10275 more
   (c) 14240 less
   (d) 15760 more
   (e) None of these

4. Find the average of the number of cars unsold by Maruti, Ford and Tata.
   मारुति, फोर्ड और टाटा द्वारा बिना बिकी गई कारों की संख्या का औसत ज्ञात करें।
   (a) 4240
   (b) 6100
   (c) 5200
   (d) 6450
   (e) None of these

5. If the Indian Police Force purchases 40% of Toyota's cars and the remaining are sold to ordinary citizens, then the number of cars sold by Toyota to ordinary citizens is what percent more or less than the number of cars sold by Toyota to Indian Police force?

यदि भारतीय पुलिस बल टोयोटा की 40% कारें खरीदता है और शेष साधारण नागरिकों को बेची जाती हैं, तो टोयोटा द्वारा साधारण नागरिकों को बेची गई कारों की संख्या भारतीय पुलिस बल को बेची गई कारों की संख्या से कितने प्रतिशत अधिक या कम है?

(a) 50% more

(b) 40% less

(c) 60% more

(d) 75% less

(e) None of these

Solutions

From the bar graph we can say that

For Hundai, percentage of cars unsold = 40% so percentage of cars sold = 60% so 3/5 = 13200 so the total number of cars manufactured by Hundai = 5/3 of 13200 = 22000. Similarly we can calculate for the other companies also.

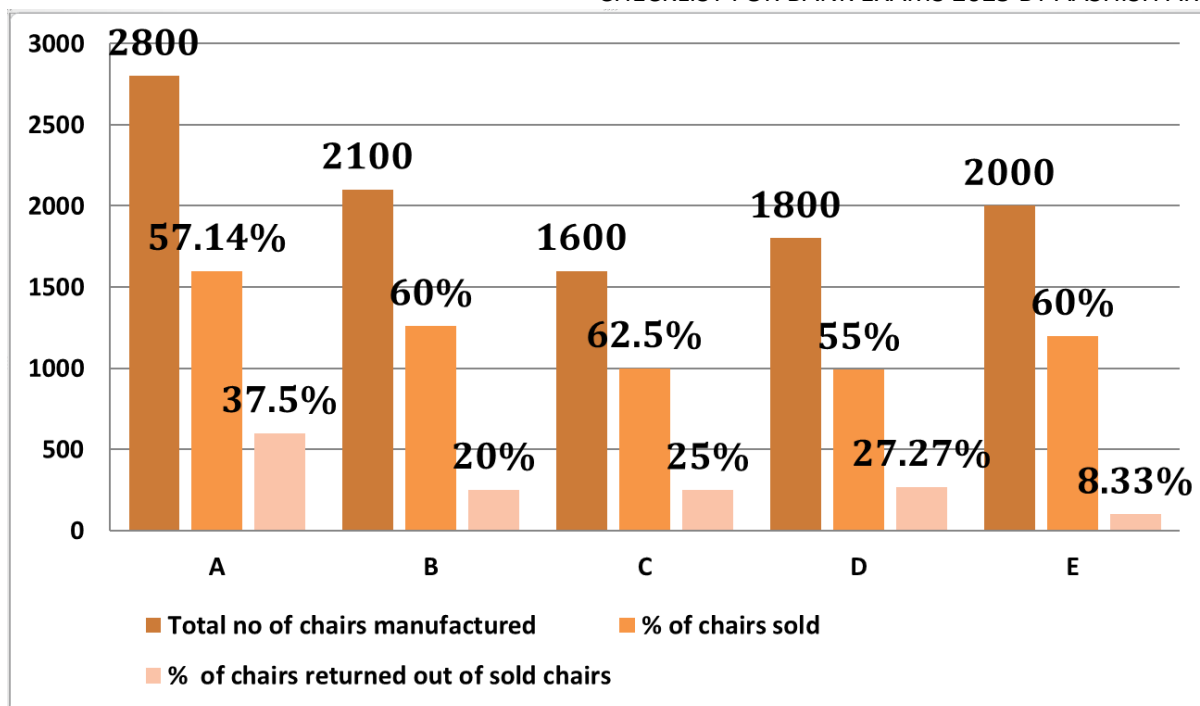|	number of cars sold	number of cars unsold	Total number of cars manufactured
Hundai	13200	8800	**22000**
Maruti	9900	8100	**18000**
Ford	9750	5250	**15000**
Tata	14000	6000	**20000**
Toyota	7500	4500	**12000**
	54350	**32650**	**87000**

1. (c) 1980 {number of cars sold and unsold by MG Hector is 11.11% more and 20% less than the number of cars sold and unsold by Maruti respectively so number of cars sold

by MG Hector = 10/9 of 9900 = 11000 & number of cars unsold by MG Hector = 4/5 of 8100 = 6480. Required answer = 6480-4500 = 1980}

2. (b) 60%

3. (a) 10550 less {Out of the total number of cars manufactured by Toyota, 31.25% of the cars are top model cars and the remaining cars are base model cars so the number of are top model cars manufactured by Toyota = 5/16 of 12000 = 3750 and if the number of top model cars sold by Toyota is equal to 33.33% of the number of cars unsold by Maruti so number of top model cars sold by Toyota = 1/3 of 8100 = 2700 so number of top model cars unsold by Toyota = 3750-2700 = 1050. Also number of base model cars sold by Toyota = 7500-2700 = 4800 & number of base model cars unsold by Toyota = 4500-1050 = 3450. Required answer = 14000-3350 = 10550 less}

4. (d) 6450

5. (a) 50% more {the 40% of the number of cars sold by Toyota is sold to Indian Police force and rest are sold to ordinary citizens so the number of cars sold by Toyota is sold to Indian Police force = 2/5 of 7500 = 3000 & the number of cars sold by Toyota is sold to ordinary citizens = 7500-3000 = 4500. Required answer = [(4500-3000)/3000] = 50% more}

SET 2. The bar graph provides data on the number of chairs manufactured, sold, and returned by five different shops during January. Analyze the data to answer the following questions.

बार ग्राफ जनवरी महीने में पाँच अलग-अलग दुकानों द्वारा निर्मित, बेचे गए और वापस किए गए कुर्सियों की संख्या का डेटा प्रदान करता है। डेटा का विश्लेषण करके निम्नलिखित प्रश्नों का उत्तर दें:

Bar chart:
- A: 2800 (Total no of chairs manufactured), 57.14% (% of chairs sold), 37.5% (% of chairs returned out of sold chairs)
- B: 2100, 60%, 20%
- C: 1600, 62.5%, 25%
- D: 1800, 55%, 27.27%
- E: 2000, 60%, 8.33%

Legend:
■ Total no of chairs manufactured ■ % of chairs sold
■ % of chairs returned out of sold chairs

1. In February, the number of chairs manufactured by shop D is 16.66% more than the number of chairs sold by shop D in January. Additionally, the number of chairs sold by shop D in February is 40% of the total number of chairs sold by shops B, C, and D combined in January. What percentage of the chairs unsold by shop A in January is the number of chairs unsold by shop D in February?

फरवरी महीने में, दुकान D द्वारा निर्मित कुर्सियों की संख्या जनवरी में दुकान D द्वारा बेची गई कुर्सियों की संख्या से 16.66% अधिक है। इसके अतिरिक्त, फरवरी में दुकान D द्वारा बेची गई कुर्सियों की संख्या जनवरी में दुकानों B, C, और D द्वारा संयुक्त रूप से बेची गई कुर्सियों की कुल संख्या का 40% है। जनवरी में दुकान A द्वारा बिना बिके कुर्सियों की संख्या का कितने प्रतिशत दुकान D द्वारा फरवरी में बिना बिके कुर्सियों की संख्या है?

(A)55.55%
(B)66.66%
(C)45.45%
(D)62.5%
(E)None of these

2. If the number of returned chairs sold by shop C is a% of the chairs unsold by shop C, and the number of chairs sold by shop A that are not returned is b% of the chairs sold by shop A, what is the ratio between a% of the chairs unsold by shop A and b% of the chairs unsold by shop A?

यदि दुकान C द्वारा बेची गई वापस की गई कुर्सियां दुकान C द्वारा बिना बिके कुर्सियों का a% हैं, और दुकान A द्वारा बेची गई ऐसी कुर्सियां जो वापस नहीं की गई हैं, वह दुकान A द्वारा बेची गई कुर्सियों का b% हैं, तो दुकान A द्वारा बिना बिके कुर्सियों के a% और b% के बीच का अनुपात क्या है?

(A)5:3
(B)2:3
(C)5:4
(D)3:5
(E) None of these

3. If the ratio of broken chairs to corroded chairs returned to shop D is 5:4, how much more or less is the number of corroded chairs returned to shop D compared to the number of chairs returned to shop C?

यदि दुकान D को वापस की गई टूटी हुई कुर्सियों और जंग लगी कुर्सियों का अनुपात 5:4 है, तो दुकान D को वापस की गई जंग लगी कुर्सियों की संख्या दुकान C को वापस की गई कुर्सियों की संख्या से कितनी अधिक या कम है?

(A)150 more
(B)130 less
(C)120 more
(D)100 less
(E)None of these

4. Find the difference between average number of chairs which are sold by shop A, B, C, D & E and average number of chairs which are returned in shop B, C, D and E.

दुकानों A, B, C, D और E द्वारा बेची गई कुर्सियों की औसत संख्या और दुकानों B, C, D और E द्वारा वापस की गई कुर्सियों की औसत संख्या के बीच का अंतर कितना है?

(A)992
(B)985
(C)875

(D)779
(E)None of these

5. Find the average number of chairs which are unsold by shop A, B and C.

दुकानों A, B और C द्वारा बिना बिके कुर्सियों की औसत संख्या की गणना करें।

(A)950
(B)600
(C)750
(D)880
(E)None of these

Solutions

For shop A, number of chairs sold = 4/7 of 2800 = 1600 & number of chairs unsold = 2800-1600 = 1200 and also number of chairs returned back to the shop A = 3/8 of 1600 = 600.

Shop	Total no of chairs manufactured	no of chairs sold	no of chairs unsold	no of chairs returned	no of chairs not returned
A	2800	1600	1200	600	1000
B	2100	1260	840	252	1008
C	1600	1000	600	250	750
D	1800	990	810	270	720
E	2000	1200	800	100	1100

1. (B)66.66% {number of chairs manufactured by shop D in February month is 16.66% more than number of manufactured sold by shop D in January month so number of chairs manufactured by shop D in February month = 7/6 of 1800 = 2100 and number of chairs sold by shop D in February month is equal to 40% of the number of chairs sold by shop B, C & D together in January month so number of chairs sold by shop D in February = 2/5 of (3250) = 1300 so number of chairs unsold by shop D in February = 2100-1300 = 800. Required answer = 800/1200 * 100 = 66.66%}

2. (B)2:3 {number of chairs sold by C which are returned is a% of the number of chairs unsold by C so a% = 250/600 *100 = 41.66%(5/12) and number of chairs sold by A which are not returned is b% of the number of chairs sold by A so b% = 1000/1600 *100 =62.5%(5/8), Required answer = ratio between a% of number of chairs unsold by A and b% of number of chairs unsold by A = 5/12 of 1200 : 5/8 of 1200 = 500 : 750 = 2 : 3}

3. (B)130 less {ratio between number of broken chairs to the corroded chairs returned back to the shop D is 5:4, then the number of corroded chairs returned back to the shop D = 4/9 of 270 = 120. Required answer = 250-120 = 130 less}

4. (A)992

5. (D)880

SET 3. Direction : Study the passage carefully and answer the following question.

The information relates to the number of room heaters of two distinct brands—Havells and Crompton—that were sold in four distinct shops. The number of Havells heater sold in shop C is 56.25% of number of Crompton heater sold in shop C. The number Havells heater sold in shop A is 6.25% less than the number of Crompton heater sold in shop C. In shops A and B, an average of 270 Havells heaters are sold. The total number of Havells heaters sold in shop B and Crompton heaters sold in shop A is 680. There are half as many room heaters sold in shop D as there are in shop A. There are 12.5% more Crompton heaters sold in shop D than Havells heaters sold in shop B. 1120 Crompton heaters were sold in A, B, and C combined. The ratio of number of Crompton heater sold in shop A and shop C is 11 : 8 respectively.

जानकारी चार अलग-अलग दुकानों में बेचे गए दो अलग-अलग ब्रांडों—हैवेल्स और क्रॉम्पटन—के रूम हीटरों की संख्या से संबंधित है। दुकान C में बेचे गए हैवेल्स हीटर की संख्या दुकान C में बेचे गए क्रॉम्पटन हीटर की संख्या का 56.25% है। दुकान A में बेचे गए हैवेल्स हीटर की संख्या दुकान C में बेचे गए क्रॉम्पटन हीटर की संख्या से 6.25% कम है। दुकानों A और B में बेचे गए हैवेल्स हीटर की औसत संख्या 270 है। दुकान B में बेचे गए हैवेल्स हीटर और दुकान A में बेचे गए क्रॉम्पटन हीटर की कुल संख्या 680 है। दुकान D में बेचे गए कुल रूम हीटर की संख्या दुकान A में बेचे गए कुल रूम हीटर की संख्या का आधा है। दुकान D में बेचे गए क्रॉम्पटन हीटर की संख्या दुकान B में बेचे गए हैवेल्स हीटर की संख्या से 12.5% अधिक है। दुकानों A, B और C में कुल 1120 क्रॉम्पटन हीटर बेचे गए। दुकान A और दुकान C में बेचे गए क्रॉम्पटन हीटर की संख्या का अनुपात क्रमशः 11:8 है।

1. The number of Havells heater sold in shop A is what percent of number of Havells heater sold in shop C?

दुकान A में बेचे गए हैवेल्स हीटर की संख्या दुकान C में बेचे गए हैवेल्स हीटर की संख्या का कितना प्रतिशत है?

(A) 122.22%
(B) 166.66%
(C) 188.88%
(D) 200%
(E) None of these

2. Find the ratio between number of Crompton heater sold in shop C and number of Havells heater sold in shop A.

दुकान C में बेचे गए क्रॉम्पटन हीटर और दुकान A में बेचे गए हैवेल्स हीटर के बीच का अनुपात ज्ञात करें।

(A) 16:15
(B) 15:17
(C) 18:21
(D) 17:12
(E) None of these

3. Find the average number of Havells heater sold in shop A, B, C and D.

दुकानों A, B, C और D में बेचे गए हैवेल्स हीटर की औसत संख्या ज्ञात करें।

(A)260
(B)315
(C)205
(D)300
(E)None of these

4. Total number of heaters sold in shop C is how much more or less than total number of heaters sold in shop D?

दुकान C में बेचे गए कुल हीटरों की संख्या दुकान D में बेचे गए कुल हीटरों की संख्या से कितनी अधिक या कम है?

(A)150 less
(B)120 more
(C)180 less
(D)130 more
(E)None of these

5. Find the difference between the number of Crompton heater sold in shop C & D together and the number of Havells heater sold in shop A & D together.

दुकान C और D में बेचे गए क्रॉम्पटन हीटरों की कुल संख्या और दुकान A और D में बेचे गए हैवेल्स हीटरों की कुल संख्या के बीच का अंतर ज्ञात करें।

(A)145
(B)175
(C)150
(D)190
(E)None of these

Solutions

	no of Crompton heaters sold	no of Havells heaters sold	Total
A	440	300	**740**
B	360	240	**600**
C	320	180	**500**
D	270	100	**370**
	1390	**820**	**2210**

1. (B)166.66%
2. (A)16:15
3. (C)205
4. (D)130 more
5. (D)190