Math Paper Test 7

1. What value should come in the place of (?) in the following questions.
(125 * 1/25)/5 + 13^2 = 400 - ?
1.245 2.230 3.190 4.175 5.210

2. What value should come in the place of (?) in the following questions.
(4855 - 790)/15 - ? = 78
1.193 2.201 3.166 4.172 5.215

3. What value should come in the place of (?) in the following questions.
20% of 600 - 5^2 + 30 = $?^3$
1.4 2.8 3.2 4.3 5.5

4. What value should come in the place of (?) in the following questions.
(√529 * √25) - 215 = ? - 120
1.20 2.25 3.5 4.15 5.30

5. What value should come in the place of (?) in the following questions.
(98/7)% of 800 = ? - 242
1.358 2.289 3.278 4.425 5.354

6. What value should come in the place of (?) in the following questions.
(18 * 19/6) + $?^2$ * 5 = 77
1.6 2.4 3.2 4.1 5.7

7. What value should come in the place of (?) in the following questions.
$(729)^{1/3}$ + 45% of 800 = ? * 3
1.187 2.156 3.214 4.123 5.89

8. What value should come in the place of (?) in the following questions.
16^2 + 20 * 1800% + 21 = ?
1.526 2.589 3.987 4.637 5.425

9. What value should come in the place of (?) in the following questions.
(2/5) * 125% of 2000 + 5^2 = ?
1.980 2.1125 3.675 4.1025 5.780

10. What value should come in the place of (?) in the following questions.
234 - 6^2 + ? = 20 * 10
1.6 2.9 3.8 4.1 5.2

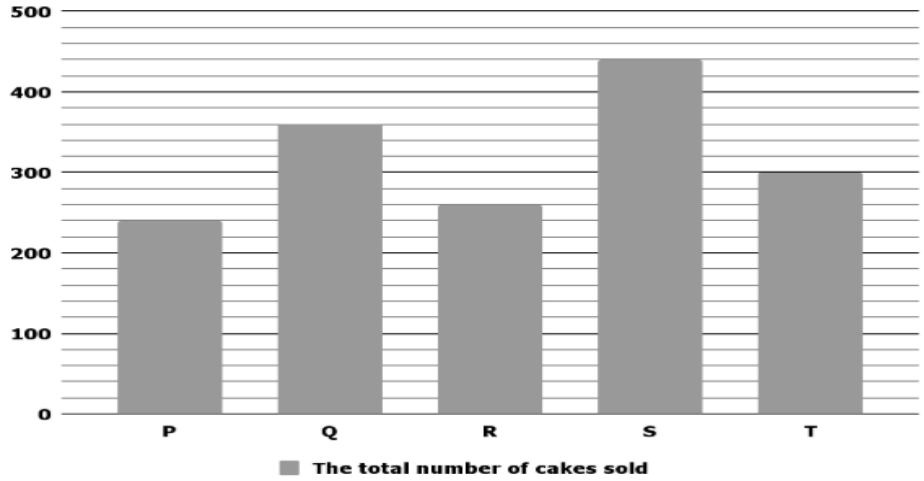
11. What value should come in the place of (?) in the following questions.
178 - 16 + 215 = ? - 24% of 200
1.425 2.389 3.415 4.268 5.255

12. What value should come in the place of (?) in the following questions.
9/13 + 5/26 - 4/13 = ?/26
1.18 2.15 3.13 4.16 5.9

13. What value should come in the place of (?) in the following questions.
(8^2 * 2^3)/2^2 = $2^?$
1.9 2.7 3.11 4.12 5.6

14. What value should come in the place of (?) in the following questions.
16^2 - 804 = 190 - ?
1.738 2.627 3.815 4.800 5.689

Study the following information carefully and answer the following questions.
The given bar graph below shows the total number of cakes sold in five different shops namely P, Q, R, S and T respectively.



15. The total number of cakes sold in shop U is 32% more than that in shop T. Find the total number of cakes sold in shop U.
1.425 2.396 3.320 4.166 5.256

16. In shop P, the ratio of the number of cup cakes to ice cakes sold is 5:3. Find the difference between the number of the cup cakes and ice cakes sold.
(Assume only Cup cakes and Ice cakes sold)
1.30 2.50 3.45 4.15 5.60

17. The total number of cakes sold in shop Q is what percentage of the total number of cakes sold in shop T.
1.132% 2.125% 3.108% 4.120% 5.115%

18. Find the sum of the total number of cakes sold in shop Q, R and S together.
1.1080 2.1120 3.890 4.1060 5.680

19. If the number of cookies sold in shop P is 60 more than that of cakes, then find the number of cookies sold in shop P.
1.300 2.320 3.150 4.270 5.280

20. The speed of the boat in still water is 25% more than the speed of the stream. The time taken by the boat to travel 162 km downstream is 4.5 hours. Find the speed of the stream.
1.18 km/hr 2.20 km/hr 3.24 km/hr 4.16 km/hr 5.30 km/hr

21. The cost price of the article is Rs. 2100, and its marked price is Rs. 600 more than its cost price. If the article is sold for Rs. 540 discount, then find the selling price of the article.
1.Rs. 2700 2.Rs. 2260 3.Rs. 2540 4.Rs. 2160 5.Rs. 2320

22. 148 litres of mixture contains milk and water, the quantity of milk is 84 litres. If x litres of milk and 16 litres of water is added to the mixture, then the ratio of the quantity of milk to water is 5:4. Find the value of x.
1.18 2.24 3.16 4.22 5.20
23. The volume of the cuboid is 7200 cm^3 and the ratio of the length to breadth of the cuboid is 10:9. If the height and length of the cuboid is the same, then find the height of the cuboid.
1.18 cm 2.20 cm 3.16 cm 4.22 cm 5.24 cm
24. The average age of A, B and C together is 14 years. If the present age of B is 2 years less than C and the average age of A and B is 13 years, then find the present age of B.
1.14 years 2.10 years 3.18 years 4.20 years 5.24 years
25. The inlet pipe can fill the tank in 24 hours and the outlet pipe can empty the same tank in 48 hours. What is the time taken by the outlet pipe to empty the tank?
1.24 hours 2.12 hours 3.48 hours 4.16 hours 5.96 hours
26. What value should come in the place of (?) in the following number series?
8, ?, 23, 40, 66, 103
1.13 2.21 3.17 4.19 5.20
27. 54, 62, ?, 102, 134, 174
1.88 2.92 3.78 4.67 5.71
28. 24, ?, 99, 199, 399, 799
1.81 2.49 3.36 4.30 5.28
29. 88, 73, ?, 70, 82, 67
1.85 2.69 3.72 4.71 5.56
Study the following information carefully and answer the following questions.
The given table chart shows the number of bus tickets booked on five different days namely Monday, Tuesday, Wednesday, Thursday and Friday respectively and also the number of train tickets booked on these days.

Days	The number of bus tickets booked	The number of train ticket booked
Monday	245	200
Tuesday	325	315
Wednesday	300	180
Thursday	165	80
Friday	425	210

30. The number of bus tickets booked on Saturday is 75 more than that on Tuesday. Find the number of bus tickets booked on Saturday.
1.380 2.425 3.560 4.400 5.360
31. On Friday, 40% of the train tickets are booked by male and the rest of the train tickets are booked by females. Find the train tickets booked by females.
1.184 2.126 3.112 4.80 5.198
32. On Monday, the number of train tickets booked decreases by x%, then it is equal to that on Wednesday. Find the value of x.
1.15 2.25 3.20 4.30 5.10
33. Find the ratio of the number of bus tickets booked on Tuesday to the number of train tickets booked on Wednesday.
1.65: 36 2.61: 49 3.72: 71 4.73: 49 5.81: 89
34. Find the difference between the number of bus tickets booked on Thursday and the number of train tickets booked on Friday.
1.35 2.45 3.55 4.65 5.85
35. (x + 250) is added to 30, then the resultant is 500. Find the value of 125% of x.
1.245 2.275 3.225 4.215 5.220
36. Rs. (5x - 2000) is invested in simple interest at the rate of 25% per annum for 2 years, then the interest received is Rs. 19000. Find the value of x.
1.7000 2.6500 3.8200 4.9000 5.8000
37. P and Q entered into a business by investing Rs. 8000 and Rs. 12000 respectively. After 8 months, Q left the business. If at the end of the year, the total profit share is Rs. 8800, then find the profit share of Q.
1.Rs. 2200 2.Rs. 4400 3.Rs. 6600 4.Rs. 1100 5.Rs. 5500
38. The train A can cross a pole and bridge which is 800 m long 12 seconds and 18 seconds, respectively. Find the length of train A.
1.2100 m 2.1800 m 3.2400 m 4.1600 m 5.2000 m
39. The average weight of 32 boys in a class is 20 kg and that of 25 girls in a class is 16 kg. Find the total weight of whole students in the class.
1.1040 kg 2.640 kg 3.400 kg 4.960 kg 5.1120 kg
40. The ratio of the total number of mobiles in shop A to B is 8:5 respectively. 72.5% of the mobiles in shop A are sold and the rest of the mobiles are 44. Find the number of mobiles in shop B.
1.120 2.100 3.80 4.150 5.160

1. Answer: B
$(125 * 1/25)/5 + 13^2 = 400 - ?$
$5/5 + 169 = 400 - ?$
$1 + 169 = 400 - ?$
$170 - 400 = -?$
$? = 230$
Hence, the correct answer is option B
2. Answer: A
$(4855 - 790)/15 - ? = 78$
$4065/15 - ? = 78$
$271 - ? = 78$
$? = 193$
Hence, the correct answer is option A
3. Answer: E
$20\% \text{ of } 600 - 5^2 + 30 = ?^3$
$120 - 25 + 30 = ?^3$
$125 = ?^3$
$? = 5$
Hence, the correct answer is option E
4. Answer: A
$(\sqrt{529} * \sqrt{25}) - 215 = ? - 120$
$23 * 5 - 215 = ? - 120$
$115 - 215 + 120 = ?$
$-100 + 120 = ?$
$? = 20$
Hence, the correct answer is option A
5. Answer: E
$(98/7)\% \text{ of } 800 = ? - 242$
$14\% \text{ of } 800 + 242 = ?$
$112 + 242 = ?$
$? = 354$
Hence, the correct answer is option E
6. Answer: C
$(18 * 19/6) + ?^2 * 5 = 77$
$19 * 3 + ?^2 * 5 = 77$
$57 + ?^2 * 5 = 77$
$?^2 * 5 = 20$
$?^2 = 4$
$? = 2$
Hence, the correct answer is option C
7. Answer: D
$(729)^{1/3} + 45\% \text{ of } 800 = ? * 3$
$9 + 360 = ? * 3$
$? * 3 = 369$
$? = 123$
Hence, the correct answer is option D
8. Answer: D
$16^2 + 20 * 1800\% + 21 = ?$
$256 + 360 + 21 = ?$
$? = 637$
Hence, the correct answer is option D
9. Answer: D
$(2/5) * 125\% \text{ of } 2000 + 5^2 = ?$
$(2/5) * 2500 + 25 = ?$
$2 * 500 + 25 = ?$
$1000 + 25 = ?$
$? = 1025$
Hence, the correct answer is option D
10. Answer: E
$234 - 6^2 + ? = 20 * 10$
$234 - 36 + ? = 200$
$198 + ? = 200$
$? = 200 - 198$
$? = 2$
Hence, the correct answer is option E
11. Answer: A
$178 - 16 + 215 = ? - 24\% \text{ of } 200$
$377 = ? - 48$
$? = 425$
Hence, the correct answer is option A
12. Answer: B
$9/13 + 5/26 - 4/13 = ?/26$
$18/26 + 5/26 - 8/26 = ?/26$
$(18 + 5 - 8)/26 = ?/26$
$15/26 = ?/26$
$? = 15$
Hence, the correct answer is option B
13. Answer: B
$(8^2 * 2^3)/2^2 = 2^?$
$(2^{3*2} * 2^3)/2^2 = 2^?$
$(2^6 * 2^3)/2^2 = 2^?$
$2^9/2^2 = 2^?$
$2^7 = 2^?$
$? = 7$
Hence, the correct answer is option B
14. Answer: A
$16^2 - 804 = 190 - ?$
$256 - 804 = 190 - ?$
$-548 - 190 = - ?$
$-? = -738$
$? = 738$
Hence, the correct answer is option A
{15 – 19}
Solution

Shop	The total number of cakes sold
P	240
Q	360
R	260
S	440
T	300

15. Answer: B
The total number of cakes sold in shop U = 300 * 132/100 = 396
Hence, the correct answer is option B
16. Answer: E
The number of cup cakes sold in shop P = 240 * 5/8 = 150
The number of ice cakes sold in shop P = 240 * 3/8 = 90
Required difference = 150 - 90 = 60
Hence, the correct answer is option E
17. Answer: D
The total number of cakes sold in shop Q = 360
The total number of cakes sold in shop T = 300
Required percentage = (360/300) * 100 = 120%
Hence, the correct answer is option D
18. Answer: D
The sum of the total number of cakes sold in shop Q, R and S together = (360 + 260 + 440) = 1060
Hence, the correct answer is option D
19. Answer: A
The number of cookies sold in shop P = (240 + 60) = 300
Hence, the correct answer is option A
20. Answer: D
The ratio of the speed of the boat in still water to the speed of the stream = 125: 100 = 5: 4
Let, the speed of the boat in still water and the speed of the stream be 5x km/hr and 4x km/hr respectively.
The downstream speed of the boat = (5x + 4x) = 9x km/hr
Given that,
162/4.5 = 9x
36 = 9x
x = 4
The speed of the stream = 4x = 4 * 4 = 16 km/hr
Hence, the correct answer is option D
21. Answer: D
The cost price of the article = Rs. 2100
The marked price of the article = 2100 + 600 = Rs. 2700
The selling price of the article = 2700 - 540 = Rs. 2160
Hence, the correct answer is option D
22. Answer: C
The quantity of milk in the mixture = 84 litres
The quantity of water in the mixture = (148 - 84) = 64 litres
Given that,
(84 + x)/(64 + 16) = 5/4
(336 + 4x) = 400
4x = 64
x = 16
Hence, the correct answer is option C
23. Answer: B
Let, the length and breadth of the cuboid be 10x cm and 9x cm respectively.
The height of the cuboid = 10x cm
The volume of the cuboid = l * b * h cm^3
7200 = 10x * 9x * 10x
8 = x^3
x = 2
The height of the cuboid = 10 * 2 = 20 cm
Hence, the correct answer is option B
24. Answer: A
A + B + C = 14 * 3 = 42 years
B = C - 2
A + B = 13 * 2 = 26 years
26 + C = 42
C = 42 - 26 = 16 years
The present age of B = 16 - 2 = 14 years
Hence, the correct answer is option A
25. Answer: C
LCM of 24 and 48 = 48 units
Inlet pipe can fill the tank in 24 hours = 2 units per hour
Outlet pipe can fill the tank in 48 hours = 1 unit per hour
Required time taken = 48/1 = 48 hours
Hence, the correct answer is option C
26. Answer: A
8 + (2^2 + 1) = **13**
13 + (3^2 + 1) = 23
23 + (4^2 + 1) = 40
40 + (5^2 + 1) = 66
66 + (6^2 + 1) = 103
Another way:
8 **13** 23 40 66 103
5 10 17 26 37
5 7 9 11
Hence, the correct answer is option A
27. Answer: C
54 + 8 = 62
62 + 16 = **78**
78 + 24 = 102

102 + 32 = 134
134 + 40 = 174
Hence, the correct answer is option C
28. Answer: B
24 * 2 + 1 = **49**
49 * 2 + 1 = 99
99 * 2 + 1 = 199
199 * 2 + 1 = 399
399 * 2 + 1 = 799
(or)
24 49 99 199 399 799
25 50 100 200 400
*2 *2 *2 *2
Hence, the correct answer is option B
29. Answer: A
88 - 15 = 73
73 + 12 = **85**
85 - 15 = 70
70 + 12 = 82
82 - 15 = 67
Hence, the correct answer is option A
{30 – 34}
Solution
30. Answer: D
The number of bus tickets booked on Saturday = (325 + 75) = 400
Hence, the correct answer is option D
31. Answer: B
The train tickets booked by females on Friday = 210 * 60/100 = 126
Hence, the correct answer is option B
32. Answer: E
The number of train tickets booked on Monday after decreasing = 180
(200 - 180)/200 * 100 = x
x = 20/2 = 10
Hence, the correct answer is option E
33. Answer: A
The number of bus tickets booked on Tuesday = 325
The number of train tickets booked on Wednesday = 180
Required ratio = 325: 180 = 65: 36
Hence, the correct answer is option A
34. Answer: B
The number of bus tickets booked on Thursday = 165
The number of train tickets booked on Friday = 210
Required difference = (210 - 165) = 45
Hence, the correct answer is option B
35. Answer: B
Given that,
(x + 250) + 30 = 500
(x + 280) = 500
x = 220
125% of x = 220 * 125/100 = 275
Hence, the correct answer is option B
36. Answer: E
SI = PNR/100
19000 = (5x - 2000) * 2 * R/100
38000 = (5x - 2000)
40000 = 5x
x = 8000
Hence, the correct answer is option E
37. Answer: B
The ratio of the profit share of P to Q = (8000 * 12): (12000 * 8)
= (8 * 3): (12 * 2)
= (2 * 3): (3 * 2)
= 1:1
The profit share of P = 8800 * 1/2 = Rs. 4400
Hence, the correct answer is option B
38. Answer: D
Let, the length of the train A = x m
Given that,
(x/12) = (x + 800)/18
18x = 12x + 9600
6x = 9600
x = 1600
The length of the train A = 1600 m
Hence, the correct answer is option D
39. Answer: A
The total weight of 32 boys in the class = 32 * 20 = 640 kg
The total weight of 25 girls in the class = 25 * 16 = 400 kg
Required total = 640 + 400 = 1040 kg
Hence, the correct answer is option A
40. Answer: B
Let, the total number of mobiles in shop A and B be 8x and 5x respectively
The number of mobiles sold in shop A = 8x * 72.5/100 = 5.8x
Rest of the mobiles = 8x - 5.8x = 2.2x
Given that,
2.2x = 44
x = 20
The total number of mobiles in shop B = 5x = 20 * 5 = 100
Hence, the correct answer is option B