

**Memory Based
Paper of
NIACL AO Prelims
2018**

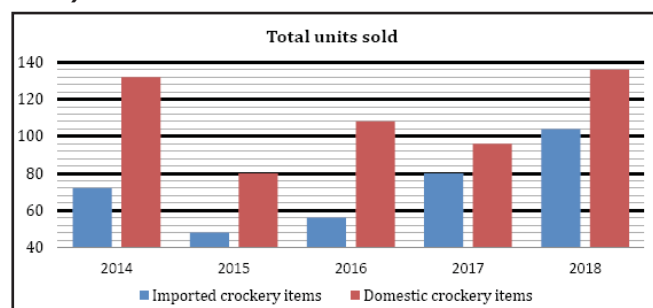
Quantitative Aptitude

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Memory Based Quantitative Aptitude Paper for NIACL AO Prelims 2018

Directions (1-5): Bar chart given below shows the number of domestic and imported crockery items sold by a shopkeeper in 5 different years. Study the below mentioned bar chart carefully to answer the following questions. (total unit sold = imported crockery item + domestic crockery item)



1. Find the ratio of imported crockery items sold in 2014 & 2015 together to domestic crockery item sold in 2016?

- (a) 1 : 2
- (b) 4 : 3
- (c) 5 : 7
- (d) 10 : 9
- (e) None of the above.

2. Domestic crockery items sold in 2015 and imported crockery items sold in 2016 together is how much less than imported crockery items sold in 2014 and domestic crockery items sold in 2017 together.

- (a) 38
- (b) 36
- (c) 22
- (d) 28
- (e) 32

3. If in 2014 sales of domestic crockery items falls by 12% as compared to previous year and in 2013 ratio of domestic crockery items sold to imported crockery items sold is 5:4, then find imported crockery items sold in 2013 is what percent of domestic crockery

items sold in 2015?

- (a) 150%
- (b) 200%
- (c) 50%
- (d) 66.23%
- (e) 100%

4. Domestic crockery items sold in 2016 and 2017 together is what percent more than the imported crockery items sold in 2016 and 2018 together?

- (a) 32.5%
- (b) 25.5%
- (c) 21.5%
- (d) 27.5%
- (e) 37.5%

5. Find the difference between average of imported crockery items sold in 2017 & 2018 and average of domestic crockery items sold in 2015, 2017 & 2018?

- (a) 25
- (b) 12
- (c) 21
- (d) 17
- (e) 11

Directions (6-10): Find the wrong number in the following number series.

6. 6, 18, 36, 144, 720, 4320, 30240

- (a) 36
- (b) 6
- (c) 18
- (d) 144
- (e) 720

7. 1487, 1170, 928, 803, 739, 712, 704

- (a) 739
- (b) 1487
- (c) 928

- (d) 1170
- (e) 704

8. **19, 380, 669, 840, 959, 1008, 1033**

- (a) 840
- (b) 1033
- (c) 380
- (d) 19
- (e) 1008

9. **957, 597, 360, 237, 123, 110, 9**

- (a) 237
- (b) 597
- (c) 9
- (d) 110
- (e) Series is correct.

10. **1764, 1681, 1597, 1521, 1444, 1369, 1296**

- (a) 1597
- (b) 1764
- (c) 1681
- (d) 1521
- (e) Series is correct.

Directions (11-15): Find the approximate value of the (?) in the following questions.

11. **23.83% of 625.02 - 100.01 = ?% of 3599.99 + 98.13 ÷ 6.9999**

- (a) 6
- (b) 23
- (c) 17
- (d) 1
- (e) 11

12. **659.97 × (?)² = (64.92)² + 24.997 % of 6860.0013**

- (a) 3
- (b) 11
- (c) 19
- (d) 43
- (e) 30

13. **5677.1321 + 4913.9133 - 3798.92 = ? + 20.005% of 3960.1321**

- (a) 7000
- (b) 6500
- (c) 6000
- (d) 6200
- (e)) 6800

14. **? = 56.9156 of 28.056 ÷ 76.0754 × 5.9743**

- (a) 141
- (b) 126
- (c) 157
- (d) 190
- (e) 117

15. **11.994 % of 500.03 + $\frac{16.01 \times ?}{20.04} = 150.0123 + (25.9531 \times 35.121)$**

- (a) 1250
- (b) 1300
- (c) 1100
- (d) 1050
- (e) 1150

16. **A shopkeeper sells two articles-A & B. Cost price of article-B is 20% less than cost price of article-A and shopkeeper sells article-A and article-B at 40% profit and 20% profit respectively. If selling price of article-A is Rs.528 more than selling price of article-B, then find cost price of article-B?**

- (a) Rs.900
- (b) Rs.1040
- (c) Rs.1200
- (d) Rs.960
- (e) Rs.1130

17. **Area of circle is 144π cm² and radius of circle is equal to diagonal of a square. Find perimeter of square.**

- (a) $60\sqrt{2}$ cm
- (b) 24 cm
- (c) 48 cm
- (d) $48\sqrt{2}$ cm
- (e) $24\sqrt{2}$ cm

18. **Ayush invested Rs.5000 in a scheme-A on S.I. for two years and he further invested the amount received from scheme-A on C.I. at the rate of 10% compounding annually for two years. If he received Rs.1218 as C.I., then find rate of interest of scheme-A?**

- (a) 10%
- (b) 6%
- (c) 14%
- (d) 8%
- (e) 12%

19. Machine-A can fill 200 empty bottles of 750ml each in 1 hour. Machine-B fills empty bottles of 500ml each. If total work done by both machine in 1 hour is same, then find how many empty bottles machine-B can fill in 8 hours?

- (a) 3600
- (b) 2000
- (c) 4800
- (d) 2400
- (e) 1800

20. A number is chosen at random from the first 100 natural numbers, then find the probability that the number is either divisible by 5 or 7.

- (a) 1125
- (b) 825
- (c) 1750
- (d) 1550
- (e) None of the above.

Direction (21-25): In the following question two equations are given in variables X and Y. You have to solve these equations and determine relation between X and Y.

21. $61. X^2 = 25$
 $Y^2 - 10Y + 25 = 0$

- (a) If $X > Y$
- (b) If $X < Y$
- (c) If $X \geq Y$
- (d) If $X \leq Y$
- (e) If $X=Y$ or No relation can be established

22. $4X^2 - 5x + 1 = 0$
 $Y^2 - 3Y + 2 = 0$

- (a) If $X > Y$
- (b) If $X < Y$
- (c) If $X \geq Y$
- (d) If $X \leq Y$
- (e) If $X=Y$ or No relation can be established

23. $X^2 + 25X + 100 = 0$
 $Y^2 + 18Y + 80 = 0$

- (a) If $X > Y$
- (b) If $X < Y$
- (c) If $X \geq Y$
- (d) If $X \leq Y$
- (e) If $X=Y$ or No relation can be established

24. $X^2 = 36$
 $(Y-2)^2 = 0$

- (a) If $X > Y$
- (b) If $X < Y$
- (c) If $X \geq Y$
- (d) If $X \leq Y$
- (e) If $X=Y$ or No relation can be established

25. $X^2 - 12X + 36 = 0$
 $Y^2 - 10Y + 24 = 0$

- (a) If $X > Y$
- (b) If $X < Y$
- (c) If $X \geq Y$
- (d) If $X \leq Y$
- (e) If $X=Y$ or No relation can be established

Direction (26-30): In table given below information is available about number of buses in different schools along with number of seats in each bus corresponding to each school. Assume in each bus all seats are occupied by boys & Girls students only. Information about number of boys student in each bus also is available in last column.

School	Number of School bus	Number of seats /school bus	(out of total students) No. of boys/bus
St. Martha (SM)	5	30	18
Vidya Niketan (VN)	2	40	22
Fabre High (FH)	5	35	15
Madden's (MS)	6	30	28

26. Find out average number of students from Vidya Niketan and Madden's (boys + girls) travelling in all the school buses.

- (a) 160
- (b) 120
- (c) 115
- (d) 140
- (e) 130

27. Total number of girls in all the school buses of Vidya Niketan is how much percentage of total number of students (boys + girls) travelling in all the school buses of Vidya Niketan?

- (a) 40
- (b) 30
- (c) 35
- (d) 45
- (e) 36

28. Total number of boys travelling in all the school buses of Fabre High is how much percentage less than the girls of travelling in all the school buses of Fabre High?

- (a) 25%
- (b) 50%
- (c) 60%
- (d) 40%
- (e) 30%

29. What is the difference between total students (boys + girls) travelling in all the school buses of St. Martha and that of Madden's?

- (a) 30
- (b) 20
- (c) 24
- (d) 40
- (e) 10

30. Find out the respective ratio between total boys travelling in all the school buses of St. Martha and that travelling in all the school buses of Fabre High?

- (a) 3 : 2
- (b) 5 : 4
- (c) 5 : 2
- (d) 6 : 5
- (e) 4 : 3

Direction (31-35): Data of employees of 3 airlines A, B, C for year 2012 is given below. Each employee belongs to exactly only one out of given two categories i.e. Ground Staff (GS) & Crew Member (CM). Out of total employees of A, 40% are CM & remaining 1200 are GS. Number of CM in airline B is half of that are in airline A. There are 560 GS employees in airline B. Total number of employees in C is 100 less than the number of crew members of Airline A.

31. Average number of employees in A, B & C together.

- (a) 1200
- (b) 1160
- (c) 1220
- (d) 1250
- (e) None of these

32. What is ratio of CM employees to GS employees for airline B

- (a) 7:6
- (b) 7:5
- (c) 6:5
- (d) 4:5
- (e) None of these

33. If difference between CM employees & GS employees of airline C is 20, then find the number GS in C?

- (a) 360 say
- (b) 320
- (c) 340
- (d) either 360 or 340
- (e) None of these

34. Number of CM employees of airline A is approximately how much percent of GS employees of airline B?

- (a) 150%
- (b) 143%
- (c) 138%
- (d) 140%
- (e) 135%

35. GS employees of airline B is how much % of total employees of Airline C?

- (a) 85%
- (b) 90%
- (c) 80%
- (d) 75%
- (e) None of these
