

TRINITi – Center for Learning

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Section – 1: Matrix Test (15 questions in 10 minutes)

Directions for questions 1-5: Answer the questions on the basis of transformations made on the given matrix.

Condition A: The transformations are made individually. For example transformation 2 will not be made on result on transformation 1.

	COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4
ROW 1	1	1	1	1
ROW 2	2	4	8	16
ROW 3	3	9	27	81
ROW 4	4	16	64	256

Transformation 1: Column 2 is interchanged with column 4 and then row 3 is interchanged with Row 4.

Transformation 2: Row 2 is interchanged with Row 1 and then Column 4 elements are copied as Row 4.

Transformation 3: Column 4 elements are copied as Column 2 elements and then Row 3 is interchanged with Row 1.

1. After transformation 1 what will be the element in Row 2 and Column 1?

- a) 64 b) 2 c) 8 d) none of these

2. After transformation 3 what will be the elements of column 1?

- a) 3,2,1,4 b) 1,4,2,3 c) 2,1,3,4 d) none of these

3. After transformation 2 what will be the element in Row 4 and Column 4?

- a) 1 b) 16 c) 81 d) 256

4. After transformation 3 what will be the element in Row 3 and Column 1?

- a) 1 b) 16 c) 81 d) 256

5. If transformation 1 is performed after performing transformation 3 i.e. 1 is performed on the resultant matrix of 3, then what will be the elements of Row 4?

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- a) 4,64,4,256 b) 1,2,1,2 c) 4,256,64,256 d) none of these

Directions for questions 6-8: Answer the questions on basis of following matrices.

a	r	e
l	o	a
f	u	r

Matrix 1

d	e	g
l	q	r
f	r	s

Matrix 2

w	o	i
e	v	u
t	a	r

Matrix 3

6. If the elements of matrix 2 are concatenated (appended at the end) with the respective elements of matrix 3 and then the elements of resultant matrix are concatenated with matrix 1 then what will be the last element in dictionary among the 9 elements?

- a) uar b) uet c) uux d) ufe

7. How many columns have at least one vowel?

- a) 6 b) 7 c) 8 d) none of these

8. If the alphabets from all the matrices are taken, how many unique consonants will we get?

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

Directions 9-12: In the matrix given below Row 1, Row 2 and Row 3 are families. Answer the questions on basis of this information.

Person	Friend	Enemy
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A	D	G
B	E	A
C	G	E

9. How many pairs of friends are there (assuming friend of friend is a friend)?

- a) 3 b) 4 c) 5 d) 6

10. How many pairs of enemies are there (assuming enemy of enemy is an enemy)?

- a) 3 b) 4 c) 5 d) 6

11. If E becomes enemy of B, how many pair of enemies are there (assuming enemy of enemy is an enemy)?

- a) 12 b) cannot be determined
c) a contradiction occurs d) none of these

12. Who can be removed from the matrix so that the number of pair of friends remains still the same?

- a) A b) c c) G d) none of these

Directions 13-15: Answer the questions on the basis of matrix given.

00	34	164	23
91	-76	93	08
04	24	36	26
45	75	51	14

13. If all the numbers above 90 are added and then all the number below 10 are multiplied. What will be the resultant of division of addition of numbers above 50 to the multiplied numbers below 10?

- a) 1 b) 348 c) 225 d) None of these

14. If row 1 is added with row 2, row 3 is added with row 4, how many prime numbers will be there?

- a) 0 b) 1 c) 2 d) none of these

- a) 1512 b) 1000 c) 1024 d) 1054

11. 53415, 75627, 97849, 19061,

- a) 31253 b) 31283 c) 32442 d) 32443

12. 15,31,63,80,242,.....

- a) 691 b) 451 c) 600 d) 728

13. 4,36,144,400,.....

- a) 500 b) 676 c) 900 d) 1024

14. 14,26,38,49,50,.....

- a) 61 b) 51 c) 50 d) 62

15. $1, 1\frac{1}{3}, 1\frac{1}{6}, 1\frac{1}{18}, 1\frac{1}{36}, \dots$

- a) $\frac{1}{108}$ b) $\frac{1}{72}$ c) $\frac{1}{144}$ d) $\frac{1}{48}$

16. AA, BB, CD, DH,

- a) EM b) EP c) ER d) ES

17. 24,39,416,525,.....

- a) 687 b) 688 c) 639 d) 636

18. 12,50,6,3,0.18,.....

- a) 0.0036 b) 0.0054 c) 0.0063 d) 0.0064

19. 24, /, 6, X, 64, -, 252,, 4,

- a) + b) = c) - d) !

20. 4,9,25,49,121,169,.....

- a) 225 b) 256 c) 289 d) 324

Section – 3: Quantitative Aptitude (12 questions in 15 minutes)

1. In a class, 24 boys are there and one seventh of total are girls. How many students are there in total?

- a) 28 b) 30 c) 32 d) none of these

2. A mixture has milk and water in the ratio 5:1. 20 liters of water is added and the ratio now becomes 5:6. How much milk was present in original mixture?

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- a) 15 liters b) 25 liters c) 20 liters d) 30 liters

3. How many small cuboids of dimension 2m X 3m x 4 m can be accommodated in a cube of side 22 m?

- a) 160 b) 385 c) 420 d) 464

4. What is the ratio of areas of circum circle and in circle of an equilateral triangle?

- a) 1:2 b) 2:1 c) 3:1 d) 4:1

5. Two doctors, three lawyers and one teacher went for a picnic? How many persons would have went for picnic at minimum if a person cannot be both teacher and lawyer?

- a) 6 b) 5 c) 3 d) 4

6. "asd fgr ghy" stands for "let it be". "uio fgr wet" stands for "let us go". "wet mkl asd" stands for "go with it". What is the code for "be"?

- a) asd b) ghy c) fgr d) none of these

7. The weight age given to various subjects while calculating total marks of a student is inversely proportional to maximum marks of the subject. If math has weight age 0.5 and maximum marks 100, and weight age for science is 0.875, what are the maximum marks for science?

- a) 36 b) 73 c) 57 d) 100

8. The population of mice in a market doubles every day. Every day 20 mice are killed. How many mice are there if after every three days, the number of mice becomes same again?

- a) 36 b) 12 c) 60 d) 20

9. If printing a page requires 2mg of ink, how many rims of 500 pages can be printed with 1 kg of ink?

- a) 200 b) 500 c) 1000 d) 2000

10. Three numbers are in A.P., and the product of them is same as product of smallest and largest. What is the middle number?

- a) 1 b) -1 c) 2 d) -2

11. A can complete 10 rounds of park in the same time as B completes 6 rounds. If circumference of track is 200 m, how much start A can give to B in a race of 1 round?

- a) 60 meters b) 80 meters c) 100 meters d) none of these

12. What is the probability for a pair of dice to show a sum of 5 or 10?

a) $\frac{1}{6}$

b) $\frac{1}{3}$

c) $\frac{7}{36}$

d) $\frac{5}{18}$

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