

## ARYAN CLASSES

### NTSE 2014 2<sup>nd</sup> stage

#### MAT Paper

1. Select the correct number that is missing in the number series given below:

214, 265, 367, ?, 724

- (1) 520 (2) 501  
(3) 525 (4) 571

1. 1

2. Select the correct alphabet number that is missing in the alphabet number series given below:

NAJ31, BEF28, RAM31, ?, YAM31

- (1) RPA31 (2) PRA30  
(3) RPA30 (4) PAR31

2. 3

3. P + Q mean P is the father of Q; P – Q means P is the wife of Q; P x Q means P is the brother of Q. Which of the following means A is the maternal uncle of D?

- (1) A x B – C + D (2) D x C – B x A  
(3) A x C + B – D (4) A – C x B + D

3. 1

4. Select from the alternative two signs which need to be interchanged to make the following equation correct  $36 \div 12 \times 6 + 9 - 6 = 38$

- (1) – and x (2) ÷ and x  
(3) – and + (4) ÷ and +

4. 4

5. According to a certain code, '=' means '>', '-' means '+', '+' means '-'. If a, b and c are positive integers and  $a = b = c$ , then which of the following are true?

- (1)  $b = a + c$  (2)  $ac = b^2$   
(3)  $a - c = 2b$  (4)  $ab = c^2$

5. 1

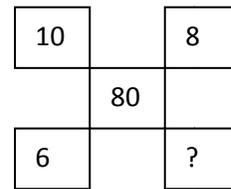
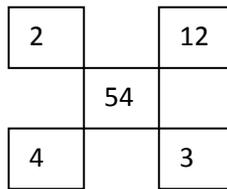
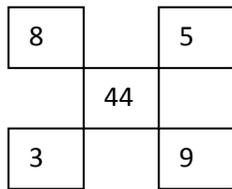
6. Find the correct group of letters in place of '?' in the following series.

FNHLJ, WOUQS, BNEKH, ?, DTHPL

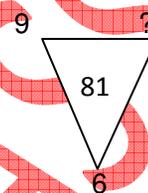
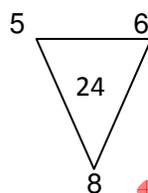
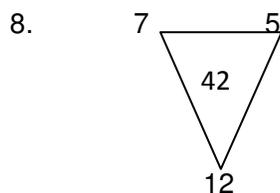
- (1) NBKEH (2) NVPTR  
(3) NFLHJ (4) NDRZV

6. 1

Directions (Q 7 – 8): Each of the following questions contains three figures in which numbers are written according to a pattern. Find the missing number for each question from among the alternatives.

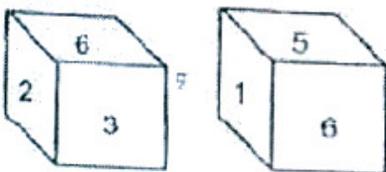


- (1) 13 (2) 14  
 (3) 12 (4) 18  
 7. 1



- (1) 14 (2) 16  
 (3) 15 (4) 11  
 8. 3

9. Two faces of a cube are given below. Which number will be opposite 3?



- (1) 1 (2) 5  
 (3) 4 (4) 2  
 9. 1

Directions (Q 10 – 11): Each of the following questions has a problem followed by a few numbered statements. Decide which of the statements are sufficient for answering the problem and choose your answer from the alternative

10. A, B and C together can complete a work in 'x' days. How many days would B alone take to complete the work?

Statements:

- I. C can complete the work in half the number of days taken by A
- II. B can complete the work in half the number of days taken by A and C together
- III. A and C taken together can complete the work in 'z' days

- (1) Both I and II are required (2) I alone is sufficient  
 (3) II and III taken together are sufficient (4) Either II or III is sufficient

10. 4

11. A boat travels in a stream from A to B and then from B to A. What is the speed of the boat in still water?

Statements:

I. The speed of the boat in still water is 2km/h more than the speed of the current

II. The speed of the current is 1 km/h more than the speed of the boat

III. Boat covers the distance of y kilometres between A and B downstream and upstream in x hours

(1) All of I, II and III are required

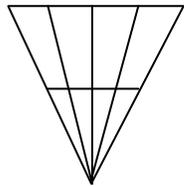
(2) Both II and III are required

(3) I and III taken together are sufficient

(4) Either I and II together or II and III together are sufficient

11. 3

12. How many triangles are there in the following figure?



(1) 20 (2) 18

(3) 22 (4) 17

12. 1

13. There are two statements given below as premises, which support the conclusion suggested in the answer options. You may select the conclusion that makes the whole argument valid:

Statements:

I. No film actors are cricketers

II. Some cricketers are poets

(1) Therefore, some poets are film actors (2) Therefore, some poets are not film actors

(3) Therefore, all poets are film actors (4) Therefore, all film actors are poets

13.2

14. Find the missing (?) in the following series:

2, 6, 30, 260, ?

(1) 470 (2) 510

(3) 630 (4) 3130

14. 4

15. One term in the following number series is wrong. Find the wrong term

2, 6, 18, 82, 650

(1) 2 (2) 18

(3) 82 (4) 650

15. 3

16. If RIR is coded as IRI then MUM is coded as

(1) NFN (2) UMU

(3) UNU (4) MFM

16. 2

17. If FAST is coded as 798 and LAST is coded as 906 then BUSY is coded as

- (1) 1759 (2) 1431  
(3) 952 (4) 948

17. 2

18. Six students A, B, C, D, E and F are in a class. A and B are from Town and C, D, E and F are from village. D and F are studious while others are casual. A, C, D are girls and B, E, F are boys. Who is the studious girl from village?

- (1) C (2) D  
(3) E (4) F

18. 2

19. Read the following information carefully and answer the questions given below it:

- A. Gopal is short then Ashok but taller than Kunal  
B. Navin is shorter than Kunal  
C. Jayesh is taller than Navin  
D. Ashok is taller than Jayesh

Who among them is the tallest?

- (1) Gopal (2) Ashok  
(3) Kunal (4) Navin

19. 2

20. Five persons are standing in a line. One of two persons at the extreme ends is a professor and the other is businessman. An advocate is standing to the right of a student. An author is to the left of the businessman. The student is standing between the professor and the advocate. Counting from the left, the advocate is at which place?

- (1) 1<sup>st</sup> (2) 2<sup>nd</sup>  
(3) 3<sup>rd</sup> (4) 5<sup>th</sup>

20. 3

Directions (Q 21 – 24): A code language has been used to write the words in capital letters English in Column I as Greek letters in Column II. Greek letters in Column II do not appear in the same order as letters in Column I. Decode the language and choose the correct code for the word given in each question from amongst the alternatives provided.

Column I	Column II
CLEAR	γβωπθ
VIEW	νεγδ
TURN	ηρπσ
BUTTER	σρασπγ
OILY	δλθμ
WRITE	γπσνδ
VOWEL	νλεγθ

21. LIVER

- (1) νηλμπ (2) δγθπε  
(3) ρσωεν (4) αβδγη

21. 2

22. TROUBLE

- (1) ναβδγηλ(2) νσωδγθε  
(3) δγηλωεν(4) σλρπαγθ  
22. 4

23. BROWN

- (1)ωενλω(2) ωδπρν  
(3)απλλην(4) πρβνε  
23. 3

24. CYCLE

- (1)βθγμβ(2) βμβνπ  
(3) πρπεω(4) πλβνπ  
24. 1

Directions (Q 25 – 28): P, Q, R, S, T, V and W are seven members of a family. Each of them has a different profession – Lawyer, Chartered Accountant (CA), Engineer, Teacher, Doctor, Architect and Pharmacist. There are three female members. No lady is either Pharmacist or CA. Each of them has a different monthly income. The Chartered Accountant earns the most. S, the engineer, earns less than V, the doctor. R, the teacher earns more than P and less than S. W's wife earns the least. T is an unmarried lady lawyer and she earns less than P and more than only Q. The pharmacist's income is not the lowest.

25. Which of the following pairs of professional represents the professions of husband and wife?

- (1) Pharmacist, Architect (2) Chartered Accountant, Architect  
(3) Engineer, Pharmacist (4) Chartered Accountant, Engineer  
25. 2

26. Which of the following statements is false?

- (1) The Architect earns more than the Lawyer  
(2) The Teacher earns less than the Engineer  
(3) The Doctor earns more than the Engineer  
(4) The Pharmacist earns more than the Lawyer  
26. 1

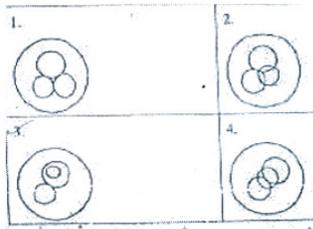
27. What is P's profession?

- (1) Pharmacist (2) Lawyer  
(3) Teacher (4) None of the above  
27. 1

28. Which of the following represents the three female members of the family?

- (1) PTQ (2) TRQ  
(3) VTQ (4) Data inadequate  
28. 4

29. Which of the following Venn Diagram correctly represents Ocean, Indian Ocean, Pacific Ocean and Mariana Trench?



29. 3

30. If RAJASTHAN – 9R17J8L19H13 is a coded language, then what is the encrypted form of the MANIPUR in the same language?

- (1) 14R13H11G9 (2) 13M14W11B9  
 (3) 13R14J11F9 (4) 14M13V11J9

30. 4

31. What is the next number in the series 7, 23, 55, 109, ...

- (1) 199 (2) 189  
 (3) 191 (4) 209

31. 3

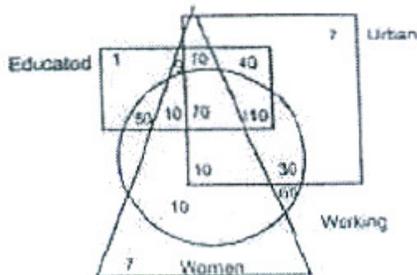
32. Find the missing number in the second figure on the basis of numbers arranged in the first figure.



- (1) 30 (2) 58  
 (3) 160 (4) 32

32. 2

Directions (Q 33 – 37): In the Venn Diagram given below, sample data of a small town having total population of 500, the square represents persons from urban areas, the triangle represents women, the circle represents persons who are working and the rectangle represents the person how are educated. Number given are number of persons.



33. If urban population is 350 find out the non educated non working urban females?

- (1) 13 (2) 10

(3) 9 (4) 20  
33. 1

34. Find out the urban males who are educated but not working.

(1) 110 (2) 40  
(3) 30 (4) 7  
34. 2

35. If rural population is 150, how many non working rural males who are not educated?

(1) 5 (2) 1  
(3) 6 (4) 3  
35. 4

36. Find out total non – working females but educated

(1) 80 (2) 79  
(3) 51 (4) 19  
36. 2

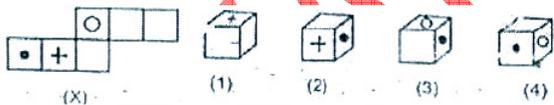
37. Find out the total rural male population

(1) 111 (2) 187  
(3) 180 (4) 114  
37. 1

38. Crime : Police : : Flood : ?

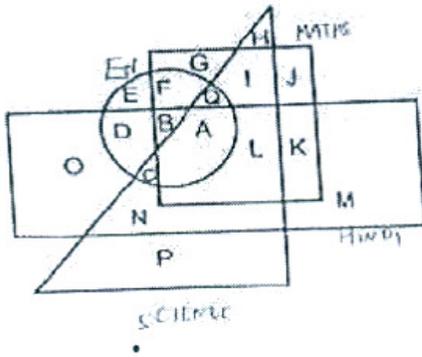
(1) Dam (2) River  
(3) Rain (4) Reservoir  
38. 1

39. When the given sheet of paper (X) is folded to make a cube, choose the cube that may be Formed



(1) 1 only (2) 1, 2 and 3 only  
(3) 2 and 3 only (4) 1, 2, 3 and 4  
39. 4

40. In the following diagram, there are four inter locked figure of a circle, a square, a triangle and a rectangle representing number of students passing in English, Maths, Science and Hindi, respectively. Different regions of the diagrams are also lettered from A through Q.



Now consider the following statements:

Statements:

- I. There is no letter that represents a student who passed in all the four subjects
- II. There are only two letters that represents a student who passed on three subject only.

Which of the above statements is / are correct?

- (1) I only (2) II only
  - (3) Both I and II (4) Neither I and II
40. 4

41. What is 'X' in the following table.

7	2	19	3	5
6	4	X	3	5
8	5	24	7	4

- (1) 16 (2) 17
- (3) 18 (4) 21

41. 3

42. Consider the question and two statements that follow:

What is the total cost of one pen, and one pencil and I note book?

Statements:

- I. The total cost of 5 pen, 6 pencils and 7 note books is Rs 178
- II. The total cost of 6 pens, 4 pencils and 2 note books, is Rs 124

Which one of the following is correct?

- (1) Statement I alone is sufficient to answer the question
- (2) Statement II alone is sufficient to answer the question
- (3) Statement I and II together are sufficient to answer the question
- (4) Both statements are not sufficient to answer the question

42. 4

43. Which one of the following differs the rest?

- (1) MGD LFC (2) JQV IPU
- (3) ZUB XTA (4) DYSC XR

43. 3

44. Which one of the following fits inside the bracket?

714 ( ) 65 IF 953 (RVXY)28

- (1) UWZSR (2) UWZRS  
(3) TZWVU (4) TZWUV

44. 4

45. If 'X' was born on December 6, 1983 and 'Y' on February 4, 1984, then when will 'Y' be half in age as compared to 'X'?

- (1) April 4, 1984 (2) April 5, 1984  
(3) April 6, 1984 (4) April 8, 1984

45. 1

46. Famine : Hunger :: War : \_\_\_\_\_

- (1) Enmity (2) Insecurity  
(3) Destruction (4) Infantry

46. 3

47. Five persons P, Q, R, S and T are sitting in a row. Q is in between P and T. To find who among them is in the middle, which of the following information given in the following statement is/are sufficient?

Statements:

I. P is left of Q and right of S

II. R is at the right end

Select the correct answer using the code given below

- (1) I only (2) II only  
(3) Either I or II (4) Both I and II

47. 4

48. Certain blank spaces are left in the following series. Which is the group of letters given below, if put in the blank spaces in sequence, will complete the series?

a \_ ab \_ a \_ ba \_ ab \_ \_ ab \_

- (1) bbaabb (2) babaaaa  
(3) abaaaba (4) aaaaaaa

48. 4

49. If the letters of the word 'BLUE' are arranged according to dictionary, what is the position of the word 'UBLE'?

- (1) 19 (2) 20  
(3) 21 (4) 22

49. 2

50. All except one does not belong to the same group. Which is that?

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50.4

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