Rajasthan NTSE-2017 (Stage-I)
SOLUTIONS

MAT

1. (2)

$$\overset{BC\quad EF\quad HI\quad KL}{A\quad\ \ D\quad\ \ G\quad\ \ J\quad\ \ M}$$
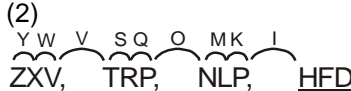
2. (1)

$$\overset{N\ \ K\quad P\quad I\quad R\quad G\quad T}{LQ\quad\ \ JQ\quad\quad HS\quad\quad FU}$$

3. (4)

A   C   F   J   O   <u>V</u>
1   3   6   10 15

4. (2)

$$\overset{Y\,W\ \ V\ \ SQ\ \ O\ \ MK\ \ I}{ZXV,\quad TRP,\quad NLP,\quad \underline{HFD}}$$

5. (1)

$\overset{11^2}{121},\quad \overset{12^2}{144},\quad \overset{13^2}{169},\quad \overset{14^2}{(196)},\quad 225,\quad 256$

6. (2)

$\overset{x^2}{5},\quad \overset{x^2}{10},\quad \overset{x^2}{20},\quad \overset{x^2}{\underline{40}},\quad 80$

7. (4)
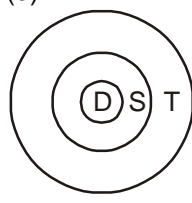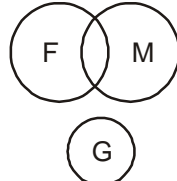
4,   8,   9,   27,   16, $\overset{4^2\quad\ 4^3}{(64,)}$ 25,   125

(square x cubes)

8. (2)

$2^{+1},\ 3^{+2},\ 5^{+3},\ 8^{+4},\ \underline{12}^{+5},\ 17$

9. (3)

10. (4)

11. (2)
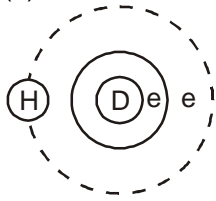
12. (1)
by observation (1)

13. (3)
by observation (3)

14. (2)
12 + 10 + 6 + 3 = 31 (2) ans.
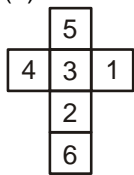
15. (1)
only 8

16. (4)
the first two letters are mirror images of the next two.
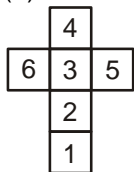
17. (4)
all result in 1000. 4 ans.

18. (1)
pacific ocean (all others are continuants)

19. (4)
Australia (all others are in asia)

20. (4)

21. (2)

22. (1)
23. (3)
22-23. 3 face painted $\rightarrow$ 8
2 face painted $\rightarrow$ 24
1 face painted $\rightarrow$ 24
0 face painted $\rightarrow$ $(4-2)^3$ = 8
(1) and (3) ans.

24. (4)

$\underline{R}AME\underline{SH} \longrightarrow Ae\underline{HR}MS$
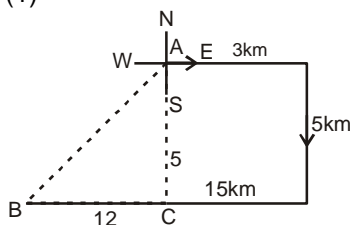
$POET \longrightarrow OTPe$

25. (3)

S C H O O L

+T↓ −B↓ +I↓ −N↓ +P↓ −K↓

U A J M Q J

P R I N C I P L E

+Q↓ −Q↓ +J↓ −M↓ +D↓ −H↓ +Q↓ −K↓ −F↓

R P K L e G R J G

(3) ans.

26. (1)
27. (1)
26-27. By Observation of codes given above and due only substituting them ;
(1) and (1) ans in both ques.

28. (1)

Father wife → mother

mother only brother → uncle

uncle's son → cousin

(1) ans.

29. (1)

$AB = \sqrt{AC^2 + BC^2}$

$= \sqrt{12^2 + 5^2}$

$= \sqrt{144 + 25}$

$= \sqrt{169}$

= 13 (SW) 1 ans.

30. (2)
by observation (2)

31. (3)
by observation

32. (4)
by observation

33. (1)
by observation

34. (4)
by observation

35. (1, 2)

| J | F | M | T |

(1, 2) line of symmetry and also mirror images are same. Multiple options are correct

36. (3)
by observation (3)

3

37. (3)
by observation (3)

38. (4)
by observation (4)

39. (2)
by observation (2)

40. (2)
by observation (2)

41. (4)
by observation (4)

42. (2)
by observation (2)

43. (4)
by observation (4)

44. (1)
by observation (1)

45. (2)
by observation (2)

46. (2)
by observation (2)

47. (3)
by observation (3)

48. (2)
The number which are divisible by 7 are 14, 21, 28, 35, 42, 49
divisible by 3 are 21, 42
∴ 6 – 2 = 4 ans.

49. (2)
by counting 6.

50. (4)
there are total 10 triangles