KARNATAKA NTSE-STAGE 1(2017)
ANSWERKEY &SOLUTIONS
MAT

1. (4)
   – and + (By putting options)
2. (2)
3. (By putting signs in options)
   (3)
   $10n2\square10n(n\square4)$
4. (1)
   120 (n = 3)
5. (2)
6. (By observation)
7. (3)
   (By observation)
   (1)
   (Hints: No faces painted = $(n\square2)3$
   $= (4\square2)3\square8$
   $\square$ Atleast one face painted = 56 (i.e. 64 – 8 = 56))
8. (4)
9. 14 (By observation)
   (3)
10. 15 (By observation)
11. (2)
12. 19 (9 $\square$ 2 + 1)
    (1)
    (This is the only set of ODD numbers)
    (2)
    154, 63, 14 (others: $\frac{1256}{7}\square96;\frac{1691}{7}\square208;\frac{15\square58}{7}\square252$)
13. (1) ASDWFZ
    EOIRLV (E – V, O – L, I – R) (Opposite Letters)
    MYJQBN (M – N, Y – B, J – Q) (Opposite Letters)
    KTCXGP (K – P, T – G, C – X) (Opposite Letters)

14. (3)
35 (–23, –21, –19, –17, –15)

15. (2)
325 (0 □ 1 + 1 = 1 ; 1 □ 2 + 2 = 4 ; 4 □ 3 + 3 = 15 ; 15 □ 4 + 4 = 64 ; 64 □ 5 + 5 = 325)

16. (4)
(By observation □ Steps)

17. (3)

18. (By observation □ Rotation)
(1)

19. (4 □ Age of Pramod = 6 □ Age of Praveen)
(4)

18 : (18 □ 1) : (18 □ 1)
^{2} ^{2} □ (18 □ 1)

14 : (4 □ 1^{2}) : (14 □ 1^{2}) □ (14 □ 1)

20. (2)
66□6□4□400
166□6□4□1000

21. (1)

S A M O H T : S I N N Z T	
S + 1 = T	O – 1 = N
A – 1 = Z	H + 1 = I
M + 1 = N	T – 1 = S

22. (4)

23. (By Observation)
(3)

24. (By Observation)
(2)

25. Grace
(diff. +100, +200, +400, +800, +1600)

Ideally no any option is correct only conclusion III follows. But, DSERT Karnataka will give answer as (1)

26. (2)
20 (By putting values in Venn diagram)

27. (3)
30 (By putting values is Venn diagram)

28. (4)

29. 8 and 7 (only one possible value of S, i. e S = 8 R = 7)
(2)

1 3 6 6 2 3 (By equation: $2E + L = 8$
$2L + P = 5$
$2A + P = 9$
$P + B = 7$
$A + 4 = 1$)

30. (1)
(By observation)

31. (4)
(By observation)

(4)

32. (2)
Assume three figures as x, y and z

33. 19 $x + 2y = 12$; $2x + y = 9$
$x + 2z = 20$; $y + 2z = 23$
$y + x + z = 16$; $x + y + z = 16$

34. (4)
(Row pattern: + 3, –2, +3)

35. (3)

36. (By Observation)
(1)

37. (By observation & opposite faces rule)
(4)
(All surgeons are doctors. Some professors will be doctors. Some professors will be engineers. Engineers & doctors are different professionals).

(1)

38. 5
(By drawing Venn diagram and putting the values)

39. (3)
50 (By drawing Venn diagram and putting the values)

40. (2)
(By observation)

41. (3)
R, O , N G – 4 =
C X – 6 = R

C – 4 = Y
T – 6 = N

X – 4 = T
O – 6 = I

R – 4 = N
I – 6 = 3

42. (1)
A, M (Outer: D + 3 = G; G + 5 = L ; L + 7 = S ; S + 9 = B; B + 11 = M; M + 13 = Z ; Z + 15 = 0).
(Inner: A + 14 = O ; O + 12 = A ; A + 10 = K ; K + 8 = S ; S + 6 = Y ; Y + 4 = C ; C + 2 = E).

43. (4)

44. (By observation)
(2)

45. (By drawing diagram)
(1)

(sum of even no. — sum of odd no.)
(26 + 24) – (17 + 11) = 22, (28 + 18) – (21 + 19) = 6)

46. (3)
21, 171 (3 □ 2 – 1 = 5) (5 □ 2 + 1 = 11)

47. (2)

48. (Common in all circles)
(4)

(one dot: Only circle & triangle)
(second dot: Only circle & square)

(4)

49.

50. (1)
(By observation)