# KARNATAKANTSE-STAGE1(2017) ANSWER KEY & SOLUTIONS

### MAT

- 1. (4)
   and + (By putting options)
- 2. (2) (By putting signs in options)
- 3. (3)  $10n^2 10n(n 4)$
- **4.** (1) 120 (n = 3)
- 5. (2) (By observation)
- 6. (3) (By observation)
- 7. (1) (Hints: No faces painted =  $(n 2)^3$ =  $(4 2)^3 8$ At least one face painted = 56 (i.e. 64 - 8 = 56))
- **8. (4)** 14 (By observation)
- **9.** (3) 15 (By observation)
- **10.** (**2**) 19(9 2+1)
- 11. (1)
  (This is the only set of ODD numbers)
- 12. (2) 154, 63, 14 (others:  $\frac{1256}{7}$  96;  $\frac{16}{7}$  208;  $\frac{1558}{7}$  252)
- 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)

#### KARNATAKANTSE-STAGE1(2017)

**14.** (3)

**15.** (2)

**16.** (4)

(By observationSteps)

**17.** (3)

(By observationRotation)

**18.** (1)

**19.** (4)

$$18: (18 \ 1)^2: (18 \ 1)^2 \quad (18 \ 1)$$
  
 $14: (4 \ 1)^2: (14 \ 1)^2 \quad (14 \ 1)$ 

20. (2)

21. (1)

SAMOHT:SINNZT

$$S+1=T$$

$$O-1=N$$

$$A-1=Z$$

$$H+1=I$$

$$M+1=N$$

$$T-1=S$$

22. (4)

23. (3)

24. (2)

25. Grace

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)

## KARNATAKANTSE-STAGE1(2017)

27. (3)

30 (By putting values is Venn diagram)

28. (4)

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

29. (2)

(By equation: 2E L 8 2L P 5 2A P 9 P B 7A 4)

**30.** (1)

(By observation)

31. (4)

(By observation)

- 32. (4)
- 33. (2)

Assume three figures as x, y and z

34. (4)

(Row pattern: +3, -2, +3)

**35.** (3)

(By Observation)

**36.** (1)

(By observation & opposite faces rule)

37. (4)

(All surgeons are doctors. Some professors will be doctors. Some professors will be engineers. Engineers & doctors are different professionals).

**38.** (1)

5 (By drawing Venn diagram and putting the values)

39. (3)

50 (By drawing Venn diagram and putting the values)

#### KARNATAKANTSE-STAGE1(2017)

40. (2)

(By observation)

41. (3)

R,O,N

$$G-4=C$$
  $C-4=Y$ 

X-4=T R-4=N

X-6=R

T-6=N

O-6=I

I-6=3

42. (1)

(Inner: A + 14 = O; O + 12 = A; A + 10 = K; K + 8 = S; S + 6 = Y; Y + 4 = C; C + 2 = E).

43. (4)

(By observation)

44. (2)

(By drawing diagram)

**45.** (1)

(sum of even no. — sum of odd no.)  

$$(26 + 24) - (17 + 11) = 22, (28 + 18) - (21 + 19) = 6$$

**46.** (3)

$$(3 2-1=5)(5$$

$$2+1=11$$
)

47. (2)

(Common in all circles)

48. (4)

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

49. (4)

**50.** (1)

(By observation)