



# VIDHIGYA

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# CLAT 2024 **RANBHOMI** *THE FINAL SPRINT*

— THE CLAT COMBAT —  
**THE MATHEMAGICIAN**



**QUANTITATIVE TECHNIQUES (DI)**

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THE CLAT COMBAT

Quantitative Techniques 3

**Directions (1-5):** Read the following information carefully and answer the questions that follow.

In a research conducted by “Indore Think Tank” regarding population of six states, ‘Vidhi’, ‘Vidhan’, ‘Vidushi’, ‘Vidyut’, ‘Vidya’ and ‘Vidit’, the following things were observed. Female population of the state ‘Vidhi’ is 120% of the male population of the state ‘Vidushi’ and 90% of the Female population of the state ‘Vidyut’. Male population of state ‘Vidhan’ is 125% of the male population of the state ‘Vidyut’ and  $1\frac{11}{14}$  times of the male population of the state ‘Vidya’. Male and Female population of the state ‘Vidyut’ is in the ratio 13:12. Male population of the state ‘Vidhi’ is  $\frac{5}{11}$ th of the total population of that state which is 1980. Female population of the state ‘Vidushi’ is 110% of the Female population of the state ‘Vidhi’ and 75% of the male population of the state ‘Vidit’. Male and Female population of the state ‘Vidya’ is in the ratio 7: 8. Female population of the state ‘Vidhan’ is 150% of the male population of the state ‘Vidhi’. Female population of the state ‘Vidit’ is equal to the male population of the state ‘Vidyut’.

- Female population of the state ‘Vidushi’ is approximately what per cent of its total population?  
(a) 33 (b) 41 (c) 49 (d) 57
- What is the average male population of the states ‘Vidhan’, ‘Vidushi’ and ‘Vidyut’ together?  
(a) 1275 (b) 1265 (c) 1235 (d) 1255
- What is the total population of the state ‘Vidit’?  
(a) 1950 (b) 2088 (c) 2884 (d) 2975
- What is the respective ratio between male and female population of the state ‘Vidhan’?  
(a) 26:23 (b) 65:54 (c) 39:32 (d) 52:49
- If 85% of the Female population of the state ‘Vidya’ is literate, how many Females in the state are illiterate?  
(a) 137 (b) 180 (c) 156 (d) 195

1. Ans. d

Sol. COMMON EXPLANATION

Total population of state ‘Vidhi’ = 1980

Male population of state ‘Vidhi’ =  $\frac{5}{11} \times 1980 = 900$

Female population of state ‘Vidhi’ =  $\frac{6}{11} \times 1980 = 1080$

Male population of state ‘Vidushi’ =  $\frac{1080}{120} \times 100 = 900$

Female population of state ‘Vidyut’ =  $\frac{1080}{90} \times 100 = 1200$

Male population of state ‘Vidyut’ =  $1200 \times \frac{13}{12} = 1300$

Male population of state ‘Vidhan’ =  $1300 \times \frac{125}{100} = 1625$

Male population of state ‘Vidya’ =  $1625 \times \frac{14}{25} = 910$

Female population of state ‘Vidushi’ =  $1080 \times \frac{11}{10} = 1188$

OR Female population of state ‘Vidushi’ =  $1080 + 108 = 1188$

Male population of state ‘Vidit’ =  $1188 \times \frac{100}{75} = 1584$

OR  $75\% = \frac{3}{4}$  so, 3 units = 1188 so, Male population of state ‘Vidit’ = 4 units = 1584

Female population of state ‘Vidhan’ =  $\frac{150}{100} \times 900 = 1350$

Female population of state ‘Vidya’ =  $\frac{910}{7} \times 8 = 1040$

Female population of state ‘Vidit’ = 1300

State	‘Vidhi’	‘Vidhan’	‘Vidushi’	‘Vidyut’	‘Vidya’	‘Vidit’
Male	900	1625	900	1300	910	1584
Female	1080	1350	1188	1200	1040	1300

Required % =  $\frac{1188}{900+1188} = \frac{1188}{2088} = 56.89\% \approx 57\%$

Use approximation

Value will be greater than 50%

Hence, option (d) is correct.

## THE CLAT COMBAT

**2. Ans. a**

Sol. Following the COMMON EXPLANATION

Required Average =  $(1625+900+1300)/3 = 3825/3 = 1275$

Hence, option (a) is correct.

**3. Ans. c**

Sol. Following the COMMON EXPLANATION

Total population of state 'Vidit' =  $1584 + 1300 = 2884$

Hence, option (c) is correct.

**4. Ans. b**

Sol. Following the COMMON EXPLANATION

Required Ratio =  $1625 : 1350 = 65 : 54$

Hence, option (b) is correct.

**5. Ans. c**

Sol. Following the COMMON EXPLANATION

No. of illiterate Female =  $15\%$  of  $1040 = 156$

Hence, option (c) is correct.

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