



KERALA TALENT ACADEMY

Kerala Talent Cognitive Skills Assessment (KTCSA)

HS Level (High School) - Classes 8, 9, 10

SET A - Cognitive Skills(Sample Paper)

Instructions:

20 questions | 1 mark each | No negative marking

Read each question carefully | Write answers on OMR sheet

Time Allowed: 35 minutes | Total marks: 20

SECTION A: MENTAL ABILITY

1. If $4 \# 5 = 41$, $5 \# 6 = 61$, $6 \# 7 = 85$, then $7 \# 8 = ?$
(A) 113 (B) 121 (C) 129 (D) 145
2. Find the missing number: 5, 11, 23, 47, ____
(A) 95 (B) 93 (C) 89 (D) 97
3. If “BOOK” is coded as “CPPL”, then how is “PEN” coded?
(A) QFO (B) QGM (C) RFO (D) QEM
4. Arrange in ascending order: $\frac{5}{8}$, $\frac{3}{4}$, $\frac{7}{12}$, $\frac{2}{3}$
(A) $\frac{7}{12}$, $\frac{5}{8}$, $\frac{2}{3}$, $\frac{3}{4}$ (B) $\frac{2}{3}$, $\frac{7}{12}$, $\frac{5}{8}$, $\frac{3}{4}$
(C) $\frac{7}{12}$, $\frac{2}{3}$, $\frac{5}{8}$, $\frac{3}{4}$ (D) $\frac{5}{8}$, $\frac{3}{4}$, $\frac{7}{12}$, $\frac{2}{3}$
5. Find the odd one out: 16, 25, 36, 49, 64, 80, 100
(A) 49 (B) 80 (C) 100 (D) 64

SECTION B: SPEED MATHEMATICS

6. Simplify: $18 \times 12 \div 6 + 9 - 4$
(A) 39 (B) 41 (C) 43 (D) 45
7. $15\% \text{ of } 240 + 25\% \text{ of } 160 = ?$
(A) 72 (B) 76 (C) 80 (D) 84
8. $\sqrt{225} + \sqrt{169} - \sqrt{81} = ?$
(A) 19 (B) 21 (C) 23 (D) 25
9. Simplify $24 \times 5 - 18 \div 3 + 7$
(A) 123 (B) 127 (C) 121 (D) 135

10. Simplify $8^3 - 6^2 + 5 = ?$

- (A) 477 (B) 481 (C) 493 (D) 501

SECTION C: CONCENTRATION

11. Find the missing letter: D, G, J, M, ____

- (A) P (B) O (C) N (D) Q

12. How many vowels are there in the word “EDUCATION”?

- (A) 4 (B) 5 (C) 6 (D) 7

13. Which word has the maximum number of letters?

- (A) MATHEMATICS (B) SCIENCE
(C) HISTORY (D) GEOGRAPHY

14. Find the pattern: 2, 6, 12, 20, 30, ____

- (A) 40 (B) 42 (C) 44 (D) 48

15. Spot the difference: “DEVELOPMENT” vs

“DEVELOPTMENT” – How many letters are different?

- (A) 1 (B) 2 (C) 3 (D) 4

SECTION D: REASONING

16. All teachers are educated. Ramesh is a teacher. Then Ramesh is educated? (A) True (B) False (C) Uncertain (D) Cannot say

17. Doctor : Hospital :: Teacher : ?

- (A) Office (B) School (C) Court (D) Bank

18. If CAT = 24, DOG = 26, then RAT = ?

- (A) 39 (B) 41 (C) 43 (D) 45

19. Complete the series: 3, 7, 13, 21, 31, ____

- (A) 41 (B) 43 (C) 45 (D) 47

20. If North is opposite to South and East is opposite to West, what is opposite to North-East?

- (A) South-West (B) South-East (C) North-West (D) East