रेल भर्ती बोर्ड / RAILWAY RECRUITMENT BOARD
सी ई एन - 06/2025 - CEN - 06/2025
एनटीपीसी (स्नातक स्तर) की भर्ती / Recruitment of NTPC Graduate Level

RRB NTPC Graduate 2025 CBT-2

NTPC Graduate Level · CEN 06/2025 · CBT-2 · Mathematics — Topic-wise

Kannada

25 Chapters · 35 Questions · Official Answer Key

About this Compilation

Every **Mathematics** question asked in the paper of the **RRB NTPC Graduate 2025 CBT-2** examination (CEN 06/2025), regrouped by **chapter**, so you can revise one topic end to end. The correct option is marked as per the official answer key.

Sections. The saved NTPC Graduate CBT-2 paper carries no section labels and mixes the subjects. In this book the questions are grouped into the three exam sections (Mathematics, General Intelligence and Reasoning, General Awareness incl. General Science), assigned from our topic tags (35 / 35 / 50, same as the notified pattern). Question numbers and answers are the same as in our complete paper book.

21 of these 35 questions are shown in English. RRB did not release them in Kannada to any candidate whose response sheet we could reach, so the official English version is printed instead and marked with an ENGLISH chip. Nothing here is machine translated.

How to use

- Use the **Index** to jump to any chapter (clickable).
- Within a chapter, questions on the same idea are placed together.
- The correct answer is highlighted in green with a tick.
- The same paper is also available complete and section-wise.



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Index — All Chapters (click to open)

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Arithmetic 3 Questions • Answer Key

Q1 Percentage of number ENGLISH

If 40% of a number is added to 240, then the result is the same number. 50% of the same number is:

A. 440
B. 300
C. 200 ✓
D. 220

Q2 Percentage saving ENGLISH

A person travels from place P to place Q to buy an article that costs 15% less at Q than at P. He spends ₹150 on travel and still saves ₹150 compared to buying the article at P. What is his percentage saving with respect to the price at P?

A. 4.5%
B. 3.5%
C. 7.5% ✓
D. 9%

Q3 Successive percentage change ENGLISH

The price of a shirt is increased by 20% and then decreased by 20%. What is the net percentage change in the price?

A. No change
B. 0.4% increase
C. 8% decrease
D. 4% decrease ✓

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Arithmetic 2 Questions • Answer Key

Q1 Discount ENGLISH

A wholesaler offers a scheme discount of 2% on the total purchase if the customer buys more than 100 units of a product. If the price per unit is ₹20, what is the total amount payable if the customer buys 150 units?

A. ₹2,980

B. ₹3,020

C. ₹2,940 ✓

D. ₹3,000

Q2 Successive profit and loss

ಒಬ್ಬ ಅಂಗಡಿಯವನು ₹40,000 ಗೆ ಒಂದು ಲ್ಯಾಪ್‌ಟಾಪ್ ಅನ್ನು ಖರೀದಿಸುತ್ತಾನೆ. ಅವನು ಮೊದಲು ಅದನ್ನು 20% ಲಾಭಕ್ಕೆ ಮಾರುತ್ತಾನೆ. ನಂತರ, ಖರೀದಿದಾರನು ಅದನ್ನು ಇನ್ನೊಬ್ಬ ವ್ಯಕ್ತಿಗೆ 10% ನಷ್ಟಕ್ಕೆ ಮಾರುತ್ತಾನೆ. ಹಾಗಾದರೆ ಲ್ಯಾಪ್‌ಟಾಪ್‌ನ ಅಂತಿಮ ಮಾರಾಟ ಬೆಲೆ ಎಷ್ಟು?

A. ₹50,000

B. ₹43,200 ✓

C. ₹42,000

D. ₹48,000

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Arithmetic 1 Question • Answer Key

Q1 SI rate ENGLISH

Shivam borrowed a sum of ₹30,000 at a certain rate of simple interest for 3 years. If he paid an interest of ₹4,500 at the end of the period at x% per annum rate of interest, the value of x is:

A. 4

B. 5 ✓

C. 7

D. 6

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Arithmetic 1 Question • Answer Key

Q1 CI multiplying sum ENGLISH

A sum of money triples itself at a certain rate of compound interest, compounded annually in 7 years. In how many years will it amount to 27 times of itself?

A. 11 years

B. 31 years

C. 23 years

D. 21 years ✓

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Arithmetic 2 Questions • Answer Key

Q1 Division into parts ENGLISH

A sum of ₹3059 is divided into three parts such that half of the first part, one-fourth of the second part, and one-eighth of the third part are equal. Find the value (in ₹) of the third part.

- **A.** 1748 ✓
- **B.** 1548
- **C.** 1848
- **D.** 1948

Q2 Mean proportional ENGLISH

If the mean proportional between (x + 3) and (x – 3) is 4, what is the value of x; x>0?

- **A.** 4
- **B.** 6
- **C.** 5 ✓
- **D.** 3

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Arithmetic 3 Questions • Answer Key

Q1 Men and days ENGLISH

If 12 workers can complete a wall in 18 days, in how many days will 8 workers complete it?

A. 36 days

B. 27 days ✓

C. 32 days

D. 30 days

Q2 Work and efficiency ENGLISH

A and B complete a work in 35 days. If A alone can do it in 60 days, then B alone can do one-third of the same work in _____days.

A. 84

B. 36

C. 42

D. 28 ✓

Q3 Work and efficiency

A ಅವರು ಒಂದು ಕೆಲಸವನ್ನು 9 ದಿನಗಳಲ್ಲಿ ಪೂರ್ಣಗೊಳಿಸಬಲ್ಲರು ಮತ್ತು ಅದೇ ಕೆಲಸವನ್ನು B ಅವರು 22 ದಿನಗಳಲ್ಲಿ ಪೂರ್ಣಗೊಳಿಸಬಲ್ಲರು. ಅವರು 2 ದಿನಗಳ ಕಾಲ ಒಟ್ಟಿಗೆ ಕೆಲಸ ಮಾಡಿದರೆ, ಕೆಲಸದ ಎಷ್ಟು ಭಾಗವು ಅಪೂರ್ಣವಾಗಿ ಉಳಿದಿರುತ್ತದೆ?

A. $\frac{71}{99}$

B. $\frac{73}{99}$

C. $\frac{68}{99}$ ✓

D. $\frac{76}{99}$

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Arithmetic 2 Questions • Answer Key

Q1 Circular track

ಸುಶಾಂತ್ ಮತ್ತು ವರುಣ್ ಎಂಬ ಇಬ್ಬರು 400 ಮೀಟರ್ ದೂರದ ಒಂದು ವೃತ್ತಾಕಾರದ ಟ್ರ್ಯಾಕ್‌ನಲ್ಲಿ ಓಡುತ್ತಿದ್ದಾರೆ. ಸುಶಾಂತ್ ಅವರು 100 ಸೆಕೆಂಡುಗಳಲ್ಲಿ ಒಂದು ಸುತ್ತನ್ನು ಪೂರ್ಣಗೊಳಿಸುತ್ತಾರೆ ಮತ್ತು ವರುಣ್ ಅವರು 80 ಸೆಕೆಂಡುಗಳಲ್ಲಿ ಒಂದು ಸುತ್ತನ್ನು ಪೂರ್ಣಗೊಳಿಸುತ್ತಾರೆ. ಅವರಿಬ್ಬರು ಒಂದೇ ಬಿಂದುವಿನಿಂದ ಏಕಕಾಲದಲ್ಲಿ ಪ್ರಾರಂಭಿಸಿ ಪರಸ್ಪರ ವಿರುದ್ಧ ದಿಕ್ಕುಗಳಲ್ಲಿ ಓಡುತ್ತಾರೆ. ಅವರಿಬ್ಬರೂ ಮತ್ತೆ ಆರಂಭದ ಬಿಂದುವಿನಲ್ಲಿ ಒಟ್ಟಿಗೆ ಸೇರುವ ಮೊದಲು ಎಷ್ಟು ಬಾರಿ ಭೇಟಿಯಾಗುತ್ತಾರೆ?

- **A.** 8 ✓
- **B.** 12
- **C.** 9
- **D.** 10

Q2 Races ENGLISH

In a linear race of 750 meters, X can beat Y by 10 meters. In a race of 444 meters, Y can beat Z by 6 meters. In a race of 150 meters, X will beat Z by how many meters?

- **A.** 2
- **B.** 3
- **C.** 4 ✓
- **D.** 6

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Arithmetic
1 Question • Answer Key

Q1 Age ratio

ರಾಹುಲ್ ವಯಸ್ಸು ಮತ್ತು ಅವರ ಮಗನ ವಯಸ್ಸಿನ ಅನುಪಾತವು 7: 2 ಆಗಿದೆ. ರಾಹುಲ್ 49 ವರ್ಷ ವಯಸ್ಸಿನವರಾಗಿದ್ದರೆ, ಅವರ ಮಗನ ವಯಸ್ಸು ಎಷ್ಟು?

A. 15 ವರ್ಷ

B. 14 ವರ್ಷ ✓

C. 13 ವರ್ಷ

D. 12 ವರ್ಷ

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Algebra

1 Question • Answer Key

Q1 Linear equations consistency

ನೀಡಿರುವ ರೇಖಾತ್ಮಕ ಸಮೀಕರಣಗಳ ವ್ಯವಸ್ಥೆಯು ಅಪರಿಮಿತ ಸಂಖ್ಯೆಯ ಪರಿಹಾರಗಳನ್ನು ಹೊಂದಿದೆ.

$3x + 7y = 15$
$ax + by = 30$

a ಮತ್ತು b ಗಳ ಮೌಲ್ಯಗಳು ಯಾವುವು?

A. a = 3; b = 7

B. a = 7; b = 3

C. a = 14; b = 6

D. a = 6; b = 14 ✓

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Algebra 1 Question • Answer Key

Q1 Cube identity

ಈ ಕೆಳಗಿನ ಯಾವ ಆಯ್ಕೆಯು $27x^3 + 343y^3 + 189x^2y + 441xy^2$ ಗೆ ಸರಿಸಮಾನವಾಗಿದೆ?

A. $(3x + 7y)^3$ ✓

B. $(5x + 7y)^3$

C. $(3x + 10y)^3$

D. $(7x + 3y)^3$

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Algebra 1 Question • Answer Key

Q1 Powers simplification

ಸರಳೀಕರಿಸಿ : $\frac{(2^4 \times 3^4 \times 5^4)}{(2^2 \times 3^2 \times 5^2)}$

A. 910

B. 900 ✓

C. 905

D. 909

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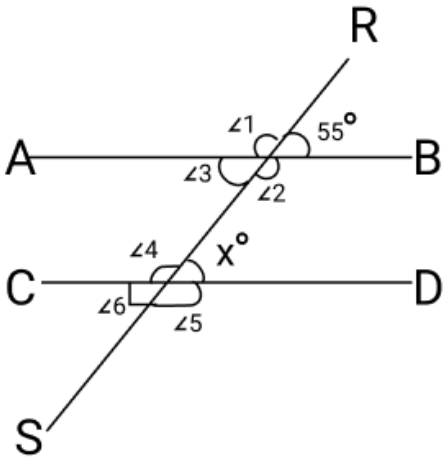
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Geometry 1 Question • Answer Key

Q1 Parallel lines transversal

ಕೊಟ್ಟಿರುವ ಚಿತ್ರದಲ್ಲಿ, AB ಬಾಹುವು CD ಗೆ ಸಮಾನಾಂತರವಾಗಿದೆ ಮತ್ತು RS ಒಂದು ಛೇಧಕವಾಗಿದೆ. ಹಾಗಾದರೆ X ನ ಮೌಲ್ಯವನ್ನು ಕಂಡುಹಿಡಿಯಿರಿ.



A. 55 ✓

B. 45

C. 35

D. 65

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Geometry 1 Question • Answer Key

Q1 Angle bisector theorem ENGLISH

In a Δ XYZ, XT is the bisector of ∠X meeting side YZ at T. If XY = 5.6 cm, YZ = 6 cm, and YT = 3.2 cm, find XZ.

A. 5.4 cm

B. 6 cm

C. 4.2 cm

D. 4.9 cm ✓

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Geometry 2 Questions • Answer Key

Q1 Chord and concentric circles ENGLISH

Two concentric circles with a common centre 'O' have a chord AB on the outer circle, which intersects the inner circle at points C and D. If the distance of the chord from the centre is 3 cm, the outer radius is 13 cm and the inner radius is 7 cm, then the length (in cm) of AC is:

A. $3\sqrt{10}$

B. $2\sqrt{10}$ ✓

C. $5\sqrt{10}$

D. $4\sqrt{10}$

Q2 Tangents to circle

PQ ಮತ್ತು QR ಎಂಬ ಎರಡು ಸ್ಪರ್ಶಕರೇಖೆಗಳನ್ನು ಬಾಹ್ಯಬಿಂದು Q ನಿಂದ O ವೃತ್ತ ಕೇಂದ್ರಕ್ಕೆ ಎಳೆಯಲಾಗಿದೆ. ಒಂದುವೇಳೆ $OQ = 41\ \text{cm}$, $\angle PQR = 60^\circ$ ಮತ್ತು ವೃತ್ತದ ತ್ರಿಜ್ಯವು **9 cm** ಆಗಿದ್ದರೆ, ΔPRQ ನ ಸುತ್ತಳತೆಯನ್ನು ಕಂಡುಹಿಡಿಯಿರಿ.

A. 80 cm

B. 120 cm ✓

C. 95 cm

D. 135 cm

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Q1 Quadrilateral properties ENGLISH

Choose the correct statements about quadrilaterals from the ones given below.

A. In an isosceles trapezium, the parallel sides are equal.
B. Kite is a type of parallelogram.
C. All squares are rhombus.
D. The quadrilateral formed by joining the mid-points of the sides of any quadrilateral is a trapezium.

A. A, B, D

B. Only C ✓

C. A, D

D. B, C

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Geometry 1 Question • Answer Key

Q1 Interior angles of polygon ENGLISH

Five interior angles of a 10-sided figure are each 185 degrees. If the remaining five interior angles are equal, then each of the five angles (in degrees) is equal to:

A. 105

B. 107

C. 103 ✓

D. 101

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Geometry
1 Question • Answer Key

Q1 Centroid

A(1, 5) ಮತ್ತು B(4, 7) ಇತರ ಶೃಂಗಗಳಾಗಿರುವ ಮತ್ತು D(4, 5) ಕೇಂದ್ರಬಿಂದುವಾಗಿರುವ ΔABC ಯ ಶೃಂಗ C (x, y) ಅನ್ನು ಕಂಡುಹಿಡಿಯಿರಿ.

A. C (7, 4)

B. C (7, 3) ✓

C. C (3, 6)

D. C (6, 3)

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Mensuration

2 Questions • Answer Key

Q1 Path around field

ಒಂದು ಆಯತಾಕಾರದ ಹೊಲವು 68.5 m x 45.6 m ಅಳತೆ ಹೊಂದಿದೆ. ಹೊಲದ ಹೊರಭಾಗದ ಸುತ್ತಲೂ ಏಕರೂಪದ ಅಗಲ 2.4 m ಇರುವ ಹಾದಿಯನ್ನು ನಿರ್ಮಿಸಲಾಗಿದೆ. ಹಾದಿಯ ಹೊರ ಸುತ್ತಳತೆ ಮತ್ತು ಹೊಲದ ಸುತ್ತಳತೆಯ ನಡುವಿನ ವ್ಯತ್ಯಾಸವನ್ನು ಕಂಡುಹಿಡಿಯಿರಿ.

A. 18.5 m

B. 19.2 m ✓

C. 17 m

D. 20 m

Q2 Parallelogram area ENGLISH

The base of a parallelogram is thrice its height. If the area of the parallelogram is 216 cm^2, then find its height.

A. $5\sqrt{2}$ cm

B. $7\sqrt{2}$ cm

C. $8\sqrt{2}$ cm

D. $6\sqrt{2}$ cm ✓

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Mensuration

2 Questions • Answer Key

Q1 Box volume ENGLISH

A metallic sheet is of the rectangular shape with length 56 cm and width 40 cm. From each corner, a square of 10 cm is cut-off. A closed box is made of the remaining sheet. How many match boxes of length 4.0 cm breadth 2.0 cm and height 1.5 cm it can accommodate?

A. 620 boxes

B. 600 boxes ✓

C. 550 boxes

D. 610 boxes

Q2 Cuboid diagonal ENGLISH

Two cubes, each of volume 216 cm^3, are joined end to end. Find the length of the diagonal of the resulting cuboid.

A. $6\sqrt{6}$ cm ✓

B. $8\sqrt{7}$ cm

C. $7\sqrt{3}$ cm

D. $5\sqrt{2}$ cm

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Trigonometry 1 Question • Answer Key

Q1 Trig ratio from equation

ಒಂದು ವೇಳೆ $10\sin A + \cos A = \sqrt{6}\sin A$ ಆಗಿದ್ದರೆ, tan A ಯ ಮೌಲ್ಯ ಎಷ್ಟು?

A. $\frac{-11-\sqrt{6}}{96}$

B. $\frac{-10-\sqrt{6}}{94}$ ✓

C. $\frac{-10-\sqrt{6}}{96}$

D. $\frac{-10-\sqrt{6}}{99}$

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Trigonometry 1 Question • Answer Key

Q1 Height and distance ENGLISH

Amit is standing on the ground and flying a kite using a 100 m long string at an angle of elevation of 30°. Nitin is standing on the roof of a building that is 10 m high and flying his kite at an angle of elevation of 45°. The two boys are standing on opposite sides of the point where the kites meet. Find the length (in m) of the string that Nitin must use so that both kites meet at the same point.

A. $40\sqrt{2}$ ✓

B. $40\sqrt{3}$

C. $50\sqrt{2}$

D. $50\sqrt{3}$

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Number System 1 Question • Answer Key

Q1 Recurring decimals

ಈ ಕೆಳಗಿನ ಮಿಶ್ರ ಪುನರಾವರ್ತಕ ದಶಮಾಂಶಗಳಲ್ಲಿ x ನ ಮೌಲ್ಯ ಕಂಡುಹಿಡಿಯಿರಿ ಮತ್ತು ಸಿಗುವ ಪರಿಹಾರವನ್ನು ಸಾಮಾನ್ಯ ಭಿನ್ನರಾಶಿ ರೂಪದಲ್ಲಿ ವ್ಯಕ್ತಪಡಿಸಿ.
$3x + 2.3666... = 5.4666...$

A. $\frac{31}{30}$ ✓

B. $\frac{31}{26}$

C. $\frac{29}{31}$

D. $\frac{31}{20}$

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Number System 1 Question • Answer Key

Q1 LCM with remainder ENGLISH

The largest four-digit number which when divided by 8, 7 and 11 leaves remainder 4 in each case is:

A. 9811

B. 9624

C. 9860 ✓

D. 9956

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Statistics 1 Question • Answer Key

Q1 Median

ಈ ದತ್ತಾಂಶದ ಮಧ್ಯಾಂಕವನ್ನು ಕಂಡುಹುಡುಕಿ: 4, 6, 8, 10, 12, 14.

A. 11

B. 8

C. 9 ✓

D. 10

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Q1 Mean deviation ENGLISH

Find the mean deviation about the mean for the data.

5, 10, 15, 20, 25.

A. 5

B. 7

C. 8

D. 6 ✓

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