

## Sample Paper (Solved)

### COMMON COMPUTER BASED TEST (CBT)

## RRB–Non Technical Categories

Goods Guard, Assistant Station Master (ASM), Traffic Apprentice (TA), Senior Clerk-cum-Typist, Junior Accounts Assistant-cum-Typist (JAA), Commercial Apprentice (CA), Senior Time Keeper, Enquiry-cum-Reservation Clerk (ECRC) & Traffic Assistant

### RECRUITMENT EXAM, 2016

1. If  $\frac{37}{13} = 2 + \frac{1}{x + \frac{1}{y + \frac{1}{z}}}$ ; where  $x, y$  and  $z$  are natural numbers, then  $x, y, z$  are:  
A. 11, 2, 5      B. 5, 2, 11  
C. 1, 5, 2      D. 1, 2, 5
2. The value of  $\left(1 - \frac{1}{2}\right)\left(1 - \frac{1}{3}\right)\left(1 - \frac{1}{4}\right) \dots \left(1 - \frac{1}{n}\right)$  is:  
A.  $\frac{2}{n(n+1)}$       B.  $\frac{2(n-1)}{n}$   
C.  $\frac{2}{n}$       D.  $\frac{1}{n}$
3. The value of  $27^3 \times 3^4 \div 3^{10}$  is equal to:  
A. 9      B. 27  
C. 81      D.  $\frac{1}{27}$
4. The expression  $\frac{(-1)^{132}}{5^{-1} + 3^{-1}}$  is equivalent to:  
A.  $\frac{16}{9}$       B.  $-\frac{15}{8}$   
C.  $\frac{15}{8}$       D.  $\frac{17}{8}$
5.  $\sqrt{\frac{1}{\left(\frac{3}{4}\right)^{-2}}} + \sqrt[3]{\frac{27}{64}}$  is equivalent to:  
A.  $\frac{2}{3}$       B.  $\frac{4}{5}$   
C.  $\frac{13}{12}$       D.  $\frac{3}{2}$
6. The greatest four-digit number completely divisible by 2, 3, 4 and 5 is  
A. 9960      C. 9690  
B. 8990      D. 9980
7. Three bells ring respectively at an interval of 15 seconds, 20 seconds and 24 seconds. If they ring continuously for 12 minutes then how many times, during this period, will they ring together?  
A. 2 times      B. 6 times  
C. 5 times      D. 3 times

8. The average age of 24 students in a class is 10. If the teacher's age is included, the average increases by one. The age of the teacher is  
 A. 25                      B. 30  
 C. 35                      D. 40
9. If  $a, b, c, d, e$  are five consecutive odd numbers, their average is  
 A.  $5(a + 4)$   
 B.  $\frac{abcde}{5}$   
 C.  $5(a + b + c + d + e)$   
 D. None of these
10. The present ages of Sunil and Anil are 40 and 60 years respectively. How many years ago was the ratio of their ages 3 : 5?  
 A. 5 years                  B. 10 years  
 C. 12 years                D. 15 years
11. If  $A : B = 6 : 7$  and  $B : C = 8 : 9$ , then  $A : B : C$  is:  
 A. 24 : 28 : 63    B. 48 : 28 : 63  
 C. 48 : 56 : 63    D. None of these
12. Two pipes P and Q can fill a cistern in 12 and 15 minutes respectively. Both are opened together, but at the end of 3 minutes the first is turned off. How much longer will the cistern take to fill?  
 A.  $8\frac{1}{4}$  min.            B.  $11\frac{1}{4}$  min.  
 C.  $7\frac{1}{4}$  min.            D.  $15\frac{1}{4}$  min.
13. Two pipes A and B would fill a cistern in 20 and 34 minutes respectively. Both pipes being opened, find when the first pipe must be turned off so that the cistern may be just filled in 17 minutes?  
 A. 10 min.                B. 30 min.  
 C. 17 min.                D. 34 min.
14. A student who secures 20% marks in an examination fails by 30 marks. Another student who secures 32% gets 42 marks more than those required to pass. The percentage of marks required to pass is:  
 A. 20                      B. 25  
 C. 28                      D. 30
15. The price of cooking oil has increased by 25%. The percentage of reduction that a family should effect in the use of cooking oil so as not to increase the expenditure on this account is :  
 A. 25%                    B. 30%  
 C. 20%                    D. 15%
16. A owns a house worth ₹ 10000. He sells it to B at a profit of 10% based on the worth of the house. B sells the house back to A at a loss of 10%. In this transaction A gets:  
 A. no profit no loss  
 B. profit of ₹ 1000  
 C. profit of ₹ 1100  
 D. profit of ₹ 1200
17. Subhash purchased a taperecorder at  $\frac{9}{10}$  of its selling price and sold it at 8% more than its S.P. His gain is :  
 A. 8%                      B. 10%  
 C. 18%                    D. 20%

18. While selling a watch, a shopkeeper gives a discount of 5%. If he gives a discount of 7%, he earns ₹ 15 less as profit. The marked price of the watch is :  
A. ₹ 697.50      B. ₹ 712.50  
C. ₹ 787.50      D. None of these
19. A shopkeeper has 50 kgs of rice. He sells a part of it at 20% profit and the rest at 40% profit. If he gains 25% on the whole, find the quantity of each part.  
A. 12.5 kgs and 37.5 kgs  
B. 37.5 kgs and 12.5 kgs  
C. 23.5 kgs and 21.5 kgs  
D. 21.5 kgs and 23.5 kgs
20. A shopkeeper has 100 kgs of tea. He sells a part of it at 20% profit and the rest at 5% loss. If his overall profit is 10%, find the quantity for each part.  
A. 20 kgs      B. 25 kgs  
C. 30 kgs      D. 40 kgs
21. Find the present worth of ₹ 264 due in 2 years hence at 5% per annum.  
A. ₹ 200      B. ₹ 240  
C. ₹ 250      D. ₹ 280
22. Find the true discount on a bill for ₹ 1270 due 7 months hence at 10% per annum.  
A. ₹ 10      B. ₹ 35  
C. ₹ 70      D. ₹ 170
23. What is the sum due 15 months hence whose present worth at 4% is ₹ 1000?  
A. ₹ 1050      B. ₹ 1100  
C. ₹ 1120      D. ₹ 1200
24. 10 men or 18 boys can do a piece of work in 15 days. In how many days would 25 men and 15 boys complete the same work working together?  
A.  $5\frac{1}{2}$  days      B.  $4\frac{1}{2}$  days  
C.  $6\frac{2}{3}$  days      D.  $2\frac{1}{3}$  days
25. Two pipes can fill a tank in 8 hours and 12 hours respectively whereas an escape pipe can empty it in 6 hours. If the three pipes are opened at 1 p.m., 2 p.m. and 3 p.m. respectively, at what time will the tank be filled?  
A. 7.00 a.m.      B. 8.00 a.m.  
C. 5.00 a.m.      D. 7.30 a.m.
26. A train runs at 45 km per hour. How far does it go in 6 seconds?  
A. 72 m      B. 60 m  
C. 75 m      D. 70 m
27. A motorist covers a distance of 39 km in 45 minutes, by moving at a speed of  $x$  km/hr for the first 15 minutes, then moving at double the speed for the next 20 minutes and then again moving at his original speed for the rest of journey. Then  $x$  is equal to :  
A. 31.2      B. 36  
C. 40      D. 52
28. A and B borrowed an equal sum of money from a money lender at the rate of 8% and  $5\frac{1}{2}\%$  p.a. respectively. If to clear the debt after 4 years, A paid ₹ 550 more

than B, the total sum of money taken by them was :

- A. ₹ 12500      B. ₹ 11000  
C. ₹ 11500      D. ₹ 10500

29. A sum of ₹ 2444 is divided among three parts in such a manner that simple interest on the three divided parts at 6% p.a. after 3, 4 and 5 years respectively remains equal. Such three parts will be:

- A. ₹ 780, ₹ 1040, ₹ 624  
B. ₹ 1040, ₹ 780, ₹ 624  
C. ₹ 624, ₹ 780, ₹ 1040  
D. ₹ 940, ₹ 880, ₹ 624

30. Two friends A and B jointly lent out ₹ 81,600 at 4% per annum compound interest, payable annually. 2 years after A gets the same amount as B gets after 3 years. The investment made by B was :

- A. ₹ 30,000      B. ₹ 40,000  
C. ₹ 45,000      D. ₹ 38,000

**Directions :** In the questions given below establish the relationship between the two words. Then from the given options select one which has the same relationship as of the given two words.

31. Tailor is related to Cloth in the same way as Cobbler is related to .....

- A. Machine      B. Leather  
C. Sticking      D. Mending

32. Millionaire is related to Wealth in the same way as Genius is related to.....

- A. Capability      B. Smartness  
C. Intelligence      D. Awareness

**Directions :** In the questions given below one term is missing. Based on the relationship of the two given words find the missing term from the given options.

33. UVW : SXU :: LMN : ?

- A. JOL      B. KNM  
C. JKL      D. MLO

34. BCDA : STUR :: KLMJ : ?

- A. VWXU      B. EFHG  
C. SRTU      D. QSRP

35. AEI : LPT :: CGK : ?

- A. OSV      B. RUY  
C. TXC      D. FJN

**Directions :** In each of the following series determine the order of the letters. Then from the given options select the one which will complete the given series.

36. R K F ? B

- A. D      B. C  
C. E      D. B

37. R Z J K S B C ?

- A. W      B. K  
C. L      D. X

38. A L W B M X C N ?

- A. V      B. W  
C. Y      D. X

**Directions :** In the following questions, select the number(s) from the given options for completing the given series.

39. 2, 3, 5, 7, 11, 13, ?

- A. 19      B. 57  
C. 31      D. 17

40. 80, 64, 48, 32, 16, ?

- A. 4      B. 0  
C. 8      D. 1

41. 3, 8, 13, 24, 41, ?

- A. 65                      B. 75  
C. 70                      D. 80

**Directions :** In each of the following questions, four words are alike in some manner. Spot the odd one out.

42. A. Tutor                      B. Principal  
C. Pupil                      D. Professor

43. A. Pond                      B. River  
C. Stream                      D. Brook

44. A. Quotation                      B. Duty  
C. Tax                      D. Octroi

45. If MUSK is coded as 146816, then ZERO will be coded as :  
A. 113811                      B. 122912  
C. 15915                      D. 2651815

46. In a certain code LIBERATE is written as 56403170, TRIBAL will be written in the same code as :  
A. 734615                      B. 736415  
C. 136475                      D. 034615

47. A train runs 120 km in West direction, 30 km in South direction and then 80 km in east direction before reaching the station. In which direction is the station from the train's starting point?  
A. South-West                      B. North-West  
C. South-East                      D. South

48. A lady said, "The person standing there is my grandfather's only son's daughter". How is the lady related to the standing person?

- A. Sister                      B. Mother  
C. Aunt                      D. Cousin

49. Ajay is the brother of Vijay. Mili is the sister of Ajay. Sanjay is the brother of Rahul and Mehul is the daughter of Vijay. Who is Sanjay's Uncle?

- A. Rahul  
B. Ajay  
C. Mehul  
D. Data inadequate

50. If these words are arranged according to dictionary then what word will come in the third place?

1. Originality                      2. Originally  
3. Originator                      4. Original  
5. Originate  
A. Originality                      B. Originator  
C. Originate                      D. Originally

51. What will be the natural order of the following?

1. Independence Day  
2. Christmas  
3. Diwali  
4. Holi  
5. Republic Day  
A. 5 4 1 3 2                      B. 5 1 4 3 2  
C. 4 1 5 3 2                      D. 2 3 4 1 5

52. A couple married in 1980 had two children, one in 1982 and the other in 1984. Their combined ages will equal the years of the marriage in?

- A. 1986                      B. 1985  
C. 1987                      D. 1988

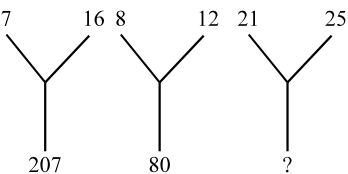
53. If the + and  $\times$  signs of the following equations are interchanged, which will be the correct equation?

- A.  $7 \times 5 + 3 = 20$   
 B.  $4 + 9 \times 1 = 42$   
 C.  $6 \times 5 + 8 = 46$   
 D.  $2 + 11 \times 4 = 28$

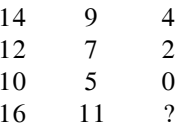
54. If '+' stands for multiplication, '×' stands for addition, '÷' stands for subtraction and '-' stands for division, then what will be the result of the following equation?

$$7 \times 4 \div 10 \times 2 + 5 = ?$$

- A. 7  
 B. 0  
 C. 11  
 D. 15

55. 

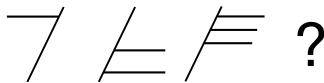
- A. 425  
 B. 184  
 C. 241  
 D. 210

56. 

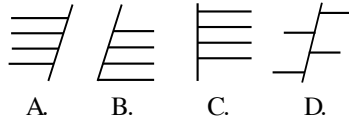
- A. 9  
 B. 6  
 C. 3  
 D. 7

**Direction :** Each of the following questions consist of problem figures followed by answer figures. Select a figure from amongst the answer figures which will continue the same series or pattern as established by the problem figures.

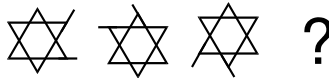
#### 57. Problem Figures



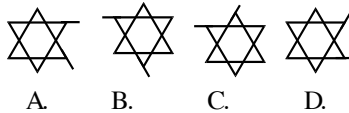
#### Answer Figures



#### 58. Problem Figures



#### Answer Figures



**Directions :** In each question below are given two statements followed by two conclusions numbered I and II. You have to take the two given statements to be true even if they seem to be at variance from commonly known facts and then decide which of the given conclusions logically follows from the two given statements, disregarding commonly known facts. Read both the statements and—

Give answer A. if only conclusion I follows; give answer B. if only conclusion II follows; give answer C. if neither I nor II follows and give answer D. if both I and II follows.

#### 59. Statements

- I. All tomatoes are red.  
 II. All grapes are tomatoes.

#### Conclusions

- I. All grapes are red.  
 II. Some tomatoes are grapes.

**60. Statements**

- I. All painters are smiling.
- II. Some authors are painters.

**Conclusions**

- I. All smiling authors are painters.
  - II. Some authors are smiling.
- 61.** Why proper earthing is necessary?
- A. It reduces the consumption of electricity
  - B. It allows the current to flow through the earth wire and into the earth, thus protecting the person
  - C. It allows the appliance to operate efficiently
  - D. None of the above
- 62.** Which one of the following items has not been included in the minimum needs programme?
- A. unemployment allowance
  - B. rural water supply
  - C. rural electrification
  - D. adult education
- 63.** This is not the principle organ of digestion and absorption in the human body.
- A. small intestine
  - B. stomach
  - C. large intestine
  - D. Both A and B
- 64.** Which are the two stars which appear as morning stars in the Eastern sky and evening stars in the Western sky?
- A. Jupiter and Mars
  - B. Mars and Venus

- C. Saturn and Mercury
- D. Mercury and Venus

- 65.** Which planet rotates on its axis from East to West?
- A. Mercury      B. Jupiter
  - C. Earth        D. Venus
- 66.** The outer planets are
- A. Moon, Earth, Mercury, Venus
  - B. Jupiter, Saturn, Uranus, Earth, Mars
  - C. Jupiter, Uranus, Saturn, Neptune
  - D. None of the above
- 67.** According to the astrophysicists
- A. the universe is mobile and expanding
  - B. the universe is heading for a collision with another universe
  - C. the universe is stationary
  - D. the doomsday of universe is near due to the formation of many new black holes
- 68.** Which is popular as the White City?
- A. New York
  - B. Belgrade
  - C. Bangalore
  - D. Bab-el-mandab
- 69.** The national currency of Haiti is
- A. Rupiah      B. Gourde
  - C. Quetzal     D. Dong
- 70.** Which one is not a news agency of India?
- A. UNI
  - B. PTI
  - C. Hindustan Samachar
  - D. Reuters

71. Which one is not a national duty?  
 A. Respect the Constitution  
 B. Respect the President  
 C. Defend the country  
 D. Protect natural environment
72. Treaty of Seringapatam was signed between:  
 A. Tipu Sultan and Nawab of Hyderabad  
 B. Tipu Sultan and English  
 C. Tipu Sultan & Rani of Jhansi  
 D. Tipu Sultan and French
73. NHRC stands for  
 A. National Hydro Research Committee  
 B. National Handicapped Rahabilitation Council  
 C. National Human Rights Commission  
 D. None of the above
74. "Water water everywhere but not a drop to drink" who stated these lines in a poem?  
 A. John Milton  
 B. Samuel Taylor Coleridge  
 C. Lord Byron  
 D. P.B. Shelley
75. Rabindranath Tagore gave up his knighthood after:  
 A. Bengal Partition  
 B. Introduction of separate electorates  
 C. Bengal faminine  
 D. Jallianwala Bagh Tragedy
76. The popular book *The Gift of Time* by Jonathan Schell, deals with  
 A. the lewid affair of Bill Clinton and Monica Lewinsky  
 B. the elimination of nuclear weapons from the world  
 C. Indo-US relationships  
 D. the deteriorating environment in industrial America
77. How can a person move on a hard icy surface?  
 A. he should use roller skates  
 B. he should hop, sneeze, jump and step in the direction which is opposite to the direction of his required movement  
 C. he should hop, sneeze, jump and step in the direction in which the movement is required  
 D. he should skid on his knees and hands
78. Which states are deriving benefits from the Tungbhadra project?  
 A. Tamil Nadu, Karnataka, Kerala  
 B. Tamil Nadu only  
 C. Andhra Pradesh and Tamil Nadu  
 D. Tamil Nadu, Andhra Pradesh, Karnataka
79. Professor Amartya Sen is the ..... Indian to win a Nobel Prize.  
 A. fifth                      B. sixth  
 C. seventh                D. ninth
80. Pyroclastics are  
 A. non-toxic gases  
 B. lava flows



- C. fragments of hot rock and spattering lava  
D. pollutant chemicals from a leather factory
- 81.** Which one is not a work of British mystery writer Peter Dickinson, who died in December, 2015?  
A. The Weathermonger  
B. The Devil's Children  
C. Laidlaw  
D. Heartsease
- 82.** Bollywood's veteran actress Sadhana, who died on December 25, 2015 has not acted opposite Rajendra Kumar in which of the following movies?  
A. *Mere Mehboob*  
B. *Aap Aaye Bahar Aayee*  
C. *Woh Kaun Thi*  
D. *Arzoo*
- 83.** The Union Cabinet on December 2 approved the setting up of six new IITs in different states. Which one is not in that state-list?  
A. Tamil Nadu  
B. Karnataka  
C. Kerala  
D. Andhra Pradesh
- 84.** The Indian Navy on December 23, 2015 decommissioned the INS Godavari. India's first warship designed and built indigenously. In which year, was it commissioned?  
A. 1982                      B. 1983  
C. 1984                      D. 1981
- 85.** The Defence Acquisition Council (DAC) on December 17, 2015 cleared the purchase of an estimated ₹ 40000 crore S-400 Triumf air defence missile system. This system is developed by which country?  
A. USA                      B. France  
C. Russia                      D. Israel
- 86.** India's communication satellite —GSAT-15—was launched successfully on November 11, 2015 from .....  
A. Sriharikota  
B. Baikonour  
C. French Guiana  
D. None of these
- 87.** The International Space Station (ISS) completed 15-years of its journey on November 2, 2015. On November 2, 2000 who was not associated with the crew members of Expedition-1?  
A. Bill Shepherd  
B. Yuri Gidzenko  
C. Sergei Krikalev  
D. Gennady Padalka
- 88.** Scientists of which country have discovered a method to decompose stubborn plastic waste with the help of a worm that can fully digest and degrade it into CO<sub>2</sub> and nutrition?  
A. China                      B. USA  
C. Australia                      D. Japan
- 89.** Indian Administrative Service (IAS) trainees will now be awarded master's degrees in

- Public Administration from which university after completing their two-year training at Mussoorie's Lal Bahadur Shastri National Academy of Administration?
- Delhi University
  - JNU, New Delhi
  - BHU, Varanasi
  - Allahabad University
- 90.** Who launched 'IMPRINT India', a joint initiative of country's top educational institutes, on November 5, 2015?
- Pranab Mukherjee
  - Hamid Ansari
  - Narendra Modi
  - Smriti Irani
- 91.** The US, Japan, India first tri-lateral ministerial summit was held in October 2015 at .....
- New York
  - Washington
  - Paris
  - Geneva
- 92.** In October 2015, cabinet committee on security cleared around 200 kms. of fencing along the border of .....
- China
  - Pakistan
  - Bangladesh
  - Myanmar
- 93.** A memorial to honour former president A.P.J. Abdul Kalam is likely to be built at .....
- New Delhi
  - Thiruvananthapuram
  - Rameswaram
  - Ahmedabad
- 94.** Pakistan signed an agreement on October 16 to build a gas pipeline from Karachi to Lahore with .....
- China
  - France
  - Oman
  - Russia
- 95.** Which country unveiled a new counter-extremism strategy on October 19 to deal with growing threats to domestic values?
- India
  - UK
  - China
  - Japan
- 96.** Under Virat Kohli's captaincy, India's first Test Series win came against which country?
- Sri Lanka
  - Bangladesh
  - New Zealand
  - Zimbabwe
- 97.** Who won men's and women's singles respectively at the US Open 2015?
- Novak Djokovic and Roberta Vinci
  - Novak Djokovic and Flavia Pennetta
  - Roger Federer and Roberta Vinci
  - Roger Federer and Flavia Pennetta
- 98.** Marking a giant leap in its space endeavours, India launched its first space observatory on September 28, 2015 on board PSLV C-30. Its name is .....
- Space Probe
  - Space Sat
  - Astrosat
  - Starsat
- 99.** Who returned safely to earth from the International Space Station on Sept. 12, 2015 with the record for having spent the most time in

- space—a total of 879 days in space over five separate trips?  
 A. Aidyn Aimbetov  
 B. Andreas Mogensen  
 C. Sergei Krikalev  
 D. Gennady Padalka
- 100.** In which country scientists have developed a new cost-effective method that can convert greenhouse gas CO<sub>2</sub> into natural gas and also help store renewable energy?  
 A. USA  
 B. Australia  
 C. The Netherlands  
 D. China

<b>ANSWERS</b>
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<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>
C	D	B	C	D	A	B	C	D	B
<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>
C	A	A	B	C	C	D	D	B	D
<b>21</b>	<b>22</b>	<b>23</b>	<b>24</b>	<b>25</b>	<b>26</b>	<b>27</b>	<b>28</b>	<b>29</b>	<b>30</b>
B	C	A	B	A	C	B	B	B	B
<b>31</b>	<b>32</b>	<b>33</b>	<b>34</b>	<b>35</b>	<b>36</b>	<b>37</b>	<b>38</b>	<b>39</b>	<b>40</b>
B	C	A	A	D	B	B	C	D	B
<b>41</b>	<b>42</b>	<b>43</b>	<b>44</b>	<b>45</b>	<b>46</b>	<b>47</b>	<b>48</b>	<b>49</b>	<b>50</b>
C	C	A	A	B	B	A	A	D	D
<b>51</b>	<b>52</b>	<b>53</b>	<b>54</b>	<b>55</b>	<b>56</b>	<b>57</b>	<b>58</b>	<b>59</b>	<b>60</b>
A	A	C	C	B	B	A	D	D	B
<b>61</b>	<b>62</b>	<b>63</b>	<b>64</b>	<b>65</b>	<b>66</b>	<b>67</b>	<b>68</b>	<b>69</b>	<b>70</b>
B	A	C	B	D	C	A	B	B	D
<b>71</b>	<b>72</b>	<b>73</b>	<b>74</b>	<b>75</b>	<b>76</b>	<b>77</b>	<b>78</b>	<b>79</b>	<b>80</b>
B	B	C	B	A	B	B	D	B	C
<b>81</b>	<b>82</b>	<b>83</b>	<b>84</b>	<b>85</b>	<b>86</b>	<b>87</b>	<b>88</b>	<b>89</b>	<b>90</b>
C	C	A	B	C	C	D	A	B	A
<b>91</b>	<b>92</b>	<b>93</b>	<b>94</b>	<b>95</b>	<b>96</b>	<b>97</b>	<b>98</b>	<b>99</b>	<b>100</b>
A	C	C	D	B	A	B	C	D	C

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