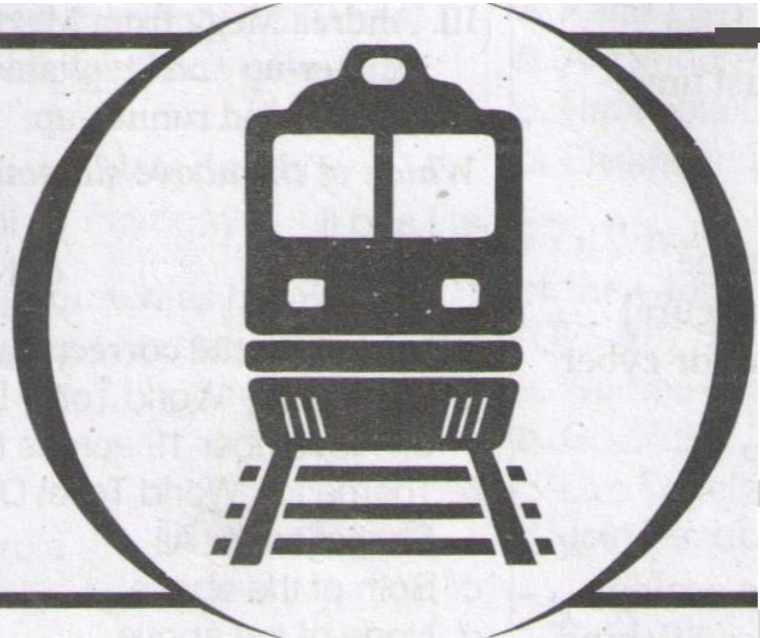


# SOLVED PAPER



## 2015 (Re-exam)

15 February 2015

Railway Recruitment Board (RRB), Kolkata

# GROUP-D

RECRUITMENT EXAMINATIONS BY [SARKARINAUKRIND.COM](http://SARKARINAUKRIND.COM)

1. A train of length 250m takes 50s to cross a 350m long platform. How much time the same train will take to cross 230m long platform?  
(a) 60s (b) 45s (c) 40s (d) 55s
2. 28 men take one week to complete 7/8 part of a particular piece of work. If the remaining work is to be completed in a week, then how many men will be required?  
(a) 5 (b) 6  
(c) 4 (d) 3
3. A shopkeeper buys 80kg sugar at the rate of 13.5 per kg. He mixes it with the 120kg sugar of 16 per kg. If he expects 20% profit overall, then with what rate, he will sell that mixture?  
(a) 18 per kg (b) 17 per kg  
(c) 16.40 per kg (d) 15 per kg
4. In a certain code language CHARCOAL is code as 45164913 and MORALE as 296137. What will be the code for ALLOCHRE in the same code language?  
(a) 13396875 (b) 16693885  
(c) 13394567 (d) 19943785
5. What will be the ratio of mixture of rice of 7.50 per kg and rice of 10 per kg in order to make mixture of 8.25 per kg?  
(a) 4:3 (b) 7:3 (c) 8:3 (d) 2:5
6. If the total cost of 30 oranges and 75 apples is 510 and the cost of per apple is 2, then the average cost of oranges is  
(a) 12 (b) 14 (c) 10 (d) 15
7. Three bells ring up with the time intervals of 48, 60 and 90 min. If all three ring up at 10:00 am together, then at what time, they all will ring up again on the same day?  
(a) 1:00 pm (b) 2:00 pm  
(c) 8:00 pm (d) 10:00 pm
8. If REASON is coded as 5 and BELIEVED as 7, then GOVERNMENT will be coded as  
(a) 6 (b) 8  
(c) 9 (d) 10
9. The amount of 68000 is allocated to A, B and C with the ratio of 1:2:5. Find the difference 2 4 16
- between the maximum and minimum shares.  
(a) 6000 (b) 14400  
(c) 9200 (d) 16000
10. A truck takes 10hr to cover the distance of 640km. A car takes 8hr to cover the same distance. The ratio of speeds of truck and car is  
(a) 34 (b) 1:2 (c) 5:6 (d) 4:5
11. Three years ago, the average age of five members of a family was 17 years. If a child get born, the average age remains same even at the present day. What will be the age of that child?  
(a) 1 year (b) 2 years  
(c) 6 months (d) 9 months
12. If an amount takes 4 years with simple interest at the rate of 12% to be 3750, then the amount will be  
(a) 2500 (b) 3000  
(c) 4000 (d) 4500
13. In a certain code language, 'mok dan sil' is written as 'nice big house', 'fitkondan' as 'house' and 'sil' as 'house'.



## RRBs SOLVED PAPER 2015

good'and'warmtirfit'as'costishigh'.  
Whatwillbethe  
codefor'good'inthesamecodelangu  
age?

- (a) mok (b) dan (c) fit (d) kon

14. Inacertaincode,ifDEAFiscoded  
as3587andFILEas7465,thenthecorr  
ectcodeforIDEALwillbe

- (a) 43568 (b) 43586  
(c) 63548 (d) 48536

15. Sometoffeesareboughtattherateof1  
l in 10 and the equal  
numberoftoffeesareboughtattherat  
eof9in 10. Ifalltoffees  
aresoldattherateof 1pertoffee,  
thenfindthetotalprofitorloss.

- (a) 1% loss  
(b) 1% profit  
(c) Noanyprofitorloss  
(d) 1.5% profit

16. Theratioofcostpricesofscooter  
andTVis8:7. Ifthecostpriceofscoote  
ris2000morethanthatofTV,thenthec  
ostpriceofTVwillbe

- (a) 14000 (b) 28000  
(c) 10000 (d) 180000

17. A and standing 60 kmapart  
minimumnumberwhichheadtowardseachotherandafte  
afterdividingby16,18and20,we6hrs they both meet with each  
getremainder4andthatnumber  
other.IfAtravelledwiththe of  
his speedandBtravelleddoubleof  
his speed, then they meet with  
eachotherafter5h. Thespeedof

- A i  
(a) 4km/h (b) 6km/h  
(c) 10km/h (d) 12km/h

18. Theratioofpresentageoftwobrother  
sis1:2. If5yearsago,theratiowas  
1:3,thenwhat willbe  
theratiooftheir ages after  
5years?

- (a) 1:4 (b) 2:3 (c) 3:5 (d) 5:6

19. Find the greatest  
fivedigitnumberthatcanbecompletely  
dividedby32,36and40.

- (a) 99360 (b) 38360  
(c) 99340 (d) 99380

20. AissonofB.CissisterofBand  
hassonDanddaughterE.Fismaterna  
luncleofD.HowisArelatedtoD?

- (a) Cousinbrothers  
(b) Nephew  
(c) Uncle/maternaluncle  
(d) Brothers

21. Whatwillbethenumberwhichmake  
s680621aperfectsquareeroot?

- (a) 4 (b) 5 (c) 6 (d) 8

22. Ashopkeepergets15%profitafte  
r givingthediscountof10%onthe  
MRP. Theratioofexpenditureand  
MRPcostswillbe

- (a) 18:23 (b) 17:18  
(c) 17:23 (d) 18:25

23. AbicycleofMRP2000issoldwiththe  
discountof20%and10%. Ifaconsume  
rpayinadvance,thenhegetsextradisc  
ountof5%.

The selling price of bicycle  
onpayingadvancewillbe

- (a) 1368 (b) 1468  
(c) 1568 (d) 1668

24. Akanshacandoapieceofworkin  
6dayswhileVasudhadoesthesame  
orkin5days. Iftheybothworktogethe  
randthetotalearnsofthatworkis660,  
thenfindtheonly shares of Vasudha  
in this  
amount.

- (a) 560. (b) 300 (c) 360 (d) 420

25. Find the

iscompletelydivisibleby7.

- (a) 364 (b) 2254 (c) 2884 (d) 3234

**Directions (Q. Nos. 26-28) In the  
following questions, a pair of words is  
given in which a word is related to  
another word. Find the similar pair of  
words among the given options.**

26. Battle: Ruination

- (a) Fire: Burn (b) Court: Justice  
(c) Water: Drown (d) Food: Hospital

27. Doctor: Hospital

- (a) Plumber: Wrench  
(b) Chef: Kitchen (c) Water: Tap  
(d) Farmer: Village

28. Tap: Water

- (a) House: Family (b) Cup: Tea  
(c) Vase: Water  
(d) Book: Knowledge

**Directions (Q. Nos. 29-  
30) In the following questions, one option is  
different from the rest three. Choose the  
correct option.**

29. (a) Parrot (b) Bat  
(c) Crow (d) Sparrow

30. (a) Zebra (b) Tiger  
(c) Lion (d) Horse

31. Calomelis

- (a) leadchloride  
(b) mercurouschloride  
(c) mercuricchloride  
(d) calciumsulphate

32. Inwhichyear, MargaretThacherbec  
amethefirstPrimeMinisterofBrita  
in?

- (a) 1998 (b) 1989 (c) 1979 (d) 1800

33. TernofofficeforUNGeneralsecretar  
y is

- (a) 3years (b) 4years  
(c) 5years (d) 6years

34. Giveanexampleoftheconversionof  
sugarsolutionintoalcohol.

- (a) Saponification  
(b) Hydrogenation  
(c) Fermentation  
(d) Aqueousdecomposition

35. According totheConstitutionof

India, thePresidentcanimpose  
throughthearticle

- (a) Article84 (b) Article105  
(c) Article225 (d) Article352

36. The duration of day and night

increasesaswemove

- (a) fromtheequatortowardsPoles  
(b) fromPolestowardstheequator  
(c) fromTropicalregiontowardsthee  
quator  
(d) fromPlateautowardsmountains

37. Dr. Jakir Hussain was

- (a) 3rdPresidentofIndia  
(b) 2ndVice-PresidentofIndia  
(c) Both(a)and (b)  
(d) Noneoftheabove

38. WhichcountrywontheUber  
cup2014?

- (a) China (b) Japan  
(c) Taiwan (d) India

39. WhichschedulewasincludedintheC  
onstitutionbytheamendment of  
Constitution in  
1951?

- (a) Eighth (b) Ninth (c) Fifth (d) Fourth

40. Whoamongthefollowingassumethe  
charge as the Deputy  
Governor and RBI on 31<sup>st</sup> July,  
2014?

- (a) S. S. Mundra (b) Y. V. Reddy  
(c) Tarr Chand (d) S. S. Tarrpore



41. Who was appointed as the chairperson of women commission on 29th September, 2014?  
 (a) Sumitra Mahajan  
 (b) Purnima Adwani  
 (c) Sharmila Tagore  
 (d) Lalitha Kumaramangalam
42. Which among the following is called a moraine?  
 (a) Debris deposited by wind  
 (b) Debris deposited by glacier  
 (c) Debris eroded by rivers  
 (d) Debris deposited by wave
43. For how many years, an Indian citizen should work in the High Court as judge for the appointment in the Supreme Court?  
 (a) 4 years (b) 5 years  
 (c) 7 years (d) 10 years
44. The Olympic Flame was for the first time ceremonially lighted and burnt in a giant torch at the entrance of the stadium  
 (a) Athens games (1896)  
 (b) London games (1908)  
 (c) Paris games (1924)  
 (d) Amsterdam (1928)
45. International Labour Day is celebrated on  
 (a) 15th April (b) 12th December  
 (c) 1st May (d) 1st August
46. The cytoplasm of a cell is  
 (a) the protoplasm outside nucleus  
 (b) the protoplasm inside nucleus  
 (c) the protoplasm present between plasma membrane and outside nucleus  
 (d) outside protoplasm
47. What is mouth of a river?  
 (a) Rivers falling into the sea which do not make delta  
 (b) a valley which separates delta from sea  
 (c) Closed mouth of river by sand  
 (d) Increased mouth of river
48. During company's rule, who among the following were appointed as the Chief Justice of Bengal High Court?  
 (a) Elizabeth (b) Lapaster  
 (c) Hyde (d) Barendse
49. Which among the following ruler was the great supporter of Mahayan Buddhism?  
 (a) Gondophares (b) Sushruta  
 (c) Kaniska (d) Charak
50. Which of the following post-Mughal ruler was known as Rangeela?  
 (a) Shah Alam-II  
 (b) Muhammed Shah  
 (c) Ahmed Shah  
 (d) Jahandar Shah
51. Which of the following grass is known as 'Elephant grass'?  
 (a) Pampas (b) Steppes  
 (c) Savanna (d) Llanos
52. For showing the correct timing of a clock which of the following is used as a standard?  
 (a) steel (b) platinum  
 (c) invar (d) tungsten
53. In periodic table, chlorine and bromine are kept in same period because  
 (a) both are gases  
 (b) both are colored  
 (c) both have seven electrons in their outermost shell  
 (d) both are oxidizing agents
54. The oldest statue of Buddha in human form is related to which art style?  
 (a) Gandhar (b) Mathura  
 (c) Palwal (d) Gupta
55. Under the SAARC Program, the SAF games were first organized in this year for the first time  
 (a) 1964 (b) 1974 (c) 1984 (d) 1994
56. Which article of the Indian Constitution gives the right to the Parliament to form a new state by altering the boundary of a state?  
 (a) Article 1 (b) Article 2  
 (c) Article 3 (d) Article 4
57. If a clock based on pendulum spring is taken to the moon, then it  
 (a) moves slowly  
 (b) moves fast  
 (c) will show some timing  
 (d) completely stops
58. Who is the Present Comptroller and Auditor General (CAG) of India?  
 (a) Vinod Rai  
 (b) Rajiv Mehri  
 (c) Hardeep Singh Puri  
 (d) Subhas Chandra Garg
59. Who was Dadaji Konddev?  
 (a) Father of Shivaji  
 (b) Maternal uncle of Shivaji  
 (c) Teacher of Shivaji  
 (d) Peshwa of Pune
60. Which of the following does not represent the Buddha?  
 (a) Stupa  
 (b) Chhaya  
 (c) Vihar  
 (d) Memorial Minar
61. The cells responsible for water conduction in plants are  
 (a) sclerenchyma  
 (b) phloem  
 (c) xylem  
 (d) collenchymatous cells
62. In mammals, the sweat gland is related to  
 (a) elimination of extra salts  
 (b) excretion of nitrogenous waste matter  
 (c) thermoregulation  
 (d) sexual attraction
63. According to the Constitution of India, what is the duration of terms of Comptroller and Auditor General (CAG)?  
 (a) 4 years (b) 5 years  
 (c) 6 years (d) 7 years
64. In 1919, the session of All India Khilafat Committee was held at  
 (a) Karachi (b) Delhi  
 (c) Pune (d) Nagpur
65. Sri Chaitanyawasthe follower of which God?  
 (a) Ram (b) Krishna  
 (c) Ganesha (d) Shiva
66. Who won the world chess championship on 23rd November, 2014?  
 (a) Vishwanathan Anand  
 (b) Garry Kasparov  
 (c) Magnus Carlson  
 (d) Antony Kaprov
67. pH shows  
 (a) temperature of solution  
 (b) vapour pressure of solution  
 (c) acidity or basicity of solution (d) ionised force of solution
68. Which of the following has the highest electron affinity among halogens?  
 (a) Fluorine  
 (b) Chlorine  
 (c) Bromine  
 (d) Iodine

## RRBs SOLVED PAPER 2015

69. Who among the following did not support Buddhism?
- (a) Chandragupta Maurya  
(b) Ashoka  
(c) Kanishka  
(d) Harshvardhan
70. During the reign of Jahangir, the first foreigner was the chief of Dutch factory at Agra.
- (a) Edward Tarry  
(b) Nicolas Vithington  
(c) William Hokkins  
(d) Francisco Pelsirt
71. A hard rock decorating system became more popular in the dynasty of
- (a) Akbar (b) Jahangir  
(c) Shah Jahan (d) Aurangzeb
72. The ruling party of Singapore, where no opposition party is known as
- (a) People's party  
(b) People's action party  
(c) Labour party  
(d) Communist party
73. Phobos and Deimos are the satellites of which planet among the following?
- (a) Mars (b) Jupiter  
(c) Saturn (d) Uranus
74. The momentum of a lighter and a heavier object is same. Which of the following has the highest kinetic energy?
- (a) Lighter object  
(b) Both have same KE  
(c) Heavier object  
(d) None of these
75. Atoms having same atomic number but different mass number are called
- (a) isobaric atoms (b) isomers  
(c) isoneutronic (d) isotopes
76. Lichens are related to
- (a) algae and fungi  
(b) algae and bryophyte  
(c) bryophyte and fungi  
(d) None of the above
77. It is easier to walk on concrete floor than on ice floor, because
- (a) concrete has more friction than ice  
(b) ice has more friction than concrete.  
(c) ice surface is very cooled.  
(d) concrete is hard where ice is soft.
78. NATO was formed in this year
- (a) 1945 (b) 1947  
(c) 1949 (d) 1951
79. In the Lahore conspiracy, the name of which two men came forward?
- (a) Chandra Shekhar Azad and Surya Sen  
(b) Surya Sen and Bhagat Singh  
(c) Bhagat Singh and Jatin Das  
(d) Jatin Das and Surya Sen
80. The beautiful temple of Thanjavur made by the king Raja Raja was dedicated to which God?
- (a) Brahma (b) Shiva  
(c) Mahavir (d) Murugan
81. Brilliance of diamond is mainly due to
- (a) its density  
(b) its costlier  
(c) its radioactivity  
(d) total internal reflection
82. Which of the following is not a metal?
- (a) Lithium (b) Helium  
(c) Sodium (d) Cobalt
83. Which of the following is not a chemical change?
- (a) Rusting of iron  
(b) Burning of magnesium  
(c) Sublimation of iodine  
(d) Electrolysis of water
84. Modern time measurements system is based on
- (a) Lunar day  
(b) Solar day  
(c) Constellation day  
(d) None of the above
85. Aurangzeb defeated in the battle of Samugarh
- (a) Shah Jahan (b) Dara Shikoh  
(c) Murad  
(d) Shah Jahan
86. Cowaji Nanabhai opened ..... at Bombay in 1853.
- (a) Cotton mill  
(b) Jute mill  
(c) Sugar mill  
(d) Iron mill
87. The chemical name of phosgene is
- (a) phosphorus tetrachloride  
(b) phosphine  
(c) carbonyl chloride  
(d) phosphorus oxychloride
88. Which of the following elements have same atomic number and atomic mass?
- (a) Nitrogen (b) Chlorine  
(c) Helium (d) Hydrogen
89. The emperor of Magadh Birbisar was related to which dynasty?
- (a) Nand dynasty  
(b) Haryak dynasty  
(c) Lichchhavi dynasty  
(d) Shishir Raj dynasty
90. The ferrous salt which is used to stop bleeding is
- (a) Ferrous sulphate  
(b) Ferric chloride  
(c) Ferric sulphate  
(d) Ferric oxide
91. Naphthalene and sand mixture can be separated by .....
- (a) evaporation  
(b) magnetic separation  
(c) sublimation  
(d) sedimentation
92. In summer, we feel comfortable under a fan because
- (a) fans spread air  
(b) fans give free air convection  
(c) fans are more helpful in heat radiation  
(d) fans are helpful in the evaporation of sweat
93. Which of the following is the largest island?
- (a) Lakshadweep  
(b) Minicoy  
(c) Andaman and Nicobar island  
(d) Malabar
94. Shengutuwan was the most powerful ruler
- (a) Chola (b) Pandya  
(c) Chera (d) None of these
95. According to Pitts India Act, 1784, the citizen of the company, soldiers and revenue issues were controlled by a Board, which was commonly known as
- (a) Board of directors  
(b) Board of controls  
(c) Secretary of states  
(d) None of the above
96. What was the name of Bengal monthly magazine established and edited by Bankim Chandra Chatterjee in 1873?
- (a) Bengali (b) Somprakash  
(c) Bangdoot (d) Bangadarshan



WWW.SARKARINAUKARIIND.COM

97. In which among the following books, gave the invaluable information about trading relations between India and Roman Empire?  
 (a) Periplus of the Erythraean sea  
 (b) Silappatikaram  
 (c) Padirapattu  
 (d) None of the above

98. Greenwich is situated near  
 (a) New York  
 (b) Tokyo  
 (c) London  
 (d) Washington

(a) Earth (b) Jupiter  
 (c) Venus (d) Uranus

99. Which of the following planet travels from East to West around the Sun?

100. Where is the longest sea coast situated in India?  
 (a) Mumbai  
 (b) Chennai  
 (c) Mangalore  
 (d) Tutikorin

## Answers

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

## Hints & Solutions

**L**  
 Given, length of train = 250m and length of platform = 350m

Total distance = 250 + 350 = 600m

Time to cross the platform = 50s

∴ Speed of train =  $\frac{600}{50} = 12 \text{ m/s}$

So, the time taken by train to cross the platform

$$= \frac{230 + 250}{12} = \frac{480}{12} = 40 \text{ s}$$

2. ∴ 8 months take one week to complete

part of a work.

$$\therefore M_1 = 28, W_1 = \frac{7}{8} \text{ and } O_1 = 7$$

Remaining work,  $W_2 = 1 - \frac{7}{8} = \frac{1}{8}$

Now apply,  $M_1 \times D_1 = M_2 \times D_2$

$$\Rightarrow \frac{28 \times 7}{\frac{7}{8}} = \frac{M_2 \times 7}{\frac{1}{8}} \Rightarrow M_2 = \frac{28 \times 7 \times 8}{7} = 224 \text{ men.}$$

3. Cost price of 80kg sugar

$$= 80 \times 13.50 = 1080$$

Cost price of 120kg sugar =  $120 \times 16 = 1920$

$$\text{Cost price of mixture} = \frac{1080 + 1920}{80 + 120} = \frac{3000}{200} = 15 \text{ per kg.}$$

∴ The total sell in price in order to avail the profit =  $15 + 100 + 120 = 3 \times \frac{120}{20} = 18 \text{ per kg}$

4. CHARCOAL

J.J.J.J.J.J.J.J.

45 164 9 13

and MORALE

J.J.J.J.J.J.J.

2 96 1 3 7

In the same way,

A LLOCHRE

J.J.J.J.J.J.J.J.

13394 5 67

5. Let these two types of rice be mixed in x:y

ratio, respectively.

According to question,

$$x \times 7.5 + y \times 10 = (x + y) \times 8.25$$

$$7.5x + 10y = 8.25x + 8.25y$$

$$0.75x = 1.75y$$

$$\frac{x}{1.75} = \frac{1.75y}{0.75}$$

$$\frac{x}{7} = \frac{7y}{3}$$

6. Let average cost of orange = x per orange. According to question,

$$30x + 75 \times 2 = 510$$

$$30x = 510 - 150 = 360$$

$$x = \frac{360}{30} = 12 \text{ per orange}$$

7. Given, LCM of 48, 60 and 90 = 720

∴ All three bells will ring up after 720 min together.

So, bells will ring 720 min after 10:00 am in the morning that means all these bells will ring up after 12h.

∴ These three bells will ring up at 10:00 pm in the night.

8. In given code sequences, it can be seen that the each word is coded by the number of letters in the word - 1.

$$\therefore \text{REASON} = 6 \text{ letters} \Rightarrow 6 - 1 = 5$$

$$\text{and BELIEVED} = 8 \text{ letters} \Rightarrow 8 - 1 = 7$$

$$\text{In the same way, GOVERNMENT} = 10 \text{ letters} \Rightarrow 10 - 1 = 9$$

9. Given, A:B:C = 2:2:2 = 8:4:5

$$\text{It can be seen that A has got maximum amount} = 68000 \times \frac{8}{8+4+5} = 32000$$

and B has got minimum amount

$$= 68000 \times \frac{4}{8+4+5} = 16000$$

Then, the required difference

$$= 32000 - 16000 = 16000$$

10. Speed of truck =  $\frac{640}{10} = 64 \text{ km/hr}$

# RRBs SOLVED PAPER 2015

and speed of Car =  $\frac{640}{B} = B$  km/hr

The ratio of speed of truck and car  
 $= \frac{64}{B} = \frac{4}{5}$   
 $B = 80$

11. Three years ago, the total age of five members of the family

$$= 17 \times 5 = 85$$

The total age of those five members of the family in the present time

$$= 85 + 3 \times 5 = 100$$

According to the question,

the average age of all family members remains same even when child got birth.

∴ In the present time, the total age of six members of the family =  $17 \times 6 = 102$

∴ The age of child =  $102 - 100 = 2$  years.

12. Let principal amount is (P).

Given rate,  $r = 12\% = \frac{25}{100}$

Compound interest,  $A = 3750$

∴ Simple interest,  $SI = 3750 - P$

Now, apply  $\frac{P \times r \times t}{100} = 3750 - P$

$$\frac{P \times 25 \times 4}{2 \times 100} = 3750 - P$$

$$\frac{P}{2} = 3750 - P$$

$$P = 3750 - P$$

$$2P = 7500$$

$$P = 3750$$

13. According to question

sil  
 @ | konl | -ll'bu | @ | good |  
 warm tir @ | cost @ high

In this language 'good' will be coded as 'konl'.

14. Given

D	E	A	F	F	I	L	E
+	+	+	+	+	+	+	+
3	5	B	7	7	4	6	5

I	D	E	A	L
+	+	+	+	+
4	3	5	B	6

15. Let x toffees are bought of each type. The

n, total cost of both types of toffees

$$= x \times \frac{10}{10} + x \times \frac{10}{10}$$

$$= 11x + 9x$$

$$= 20x = 200$$

The selling price of both types of toffees

$$= 2x \times 1 = 2x$$

$$\therefore \text{Loss} = \frac{200x - 2x}{99} \times 100$$

$$= \frac{200 - 19B}{2} = \frac{200 - 19 \times 80}{2} = 101$$

16.

Let the prices of scooter and TV are (Bx and (7x, respectively.

According to question,

$$Bx = 7x + 2000$$

$$x = 2000$$

∴ Total price of TV =  $7 \times 2000$

$$= 14000$$

17. Let the velocities of A and B are x and y km/hr, respectively.

According to the question,

$$60 = 6$$

$$x + y$$

$$\Rightarrow x + y = 10 \quad \dots (i)$$

Now, according to second condition given in the question,

$$60 = 5$$

$$-x + 2y$$

$$3$$

$$2$$

$$3x + 2y = 11 \quad \dots (ii)$$

$$x + 3y = 11$$

After solving Eqs. (i) and (ii) for the values of x and y, we get

$$2y = B$$

$$\Rightarrow Y = 4$$

$$\text{and } x = 6$$

∴ Velocity of A = 6 km/hr

18. Let the present age of Wobrothers are x and 2x, respectively.

According to the given condition, 5 year ago,

$$x - 5 = \frac{1}{3}$$

$$2x - 5 = \frac{1}{3}$$

$$\Rightarrow 3x - 15 = 2x - 5$$

$$\Rightarrow x = 10$$

$$\text{and } 2x = 20$$

After 5 years, the ratio of ages of these two brothers

$$\frac{10+5}{20+5}$$

$$= \frac{15}{25} = 3:5$$

19. LCM of 32, 36 and 40 = 1440

We know, the greatest five digit number

$$= 99999$$

Now split this number

$$99999 = 1440 \times 69 + 640$$

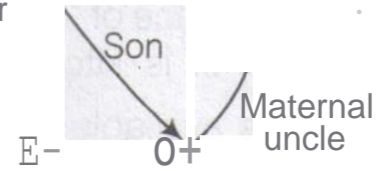
∴ The required number

$$= 1440 \times 69 = 99360$$

20. According to questions,

B Sister C Brother F + I

Son Daughter



Cousin brother

Since, the gender of B is not defined here.

∴ Discousin brother of A.

21. Calculate the square root of 60621 with the help of divider rule.

$$\begin{array}{r} B25 \\ B16B0621 \\ \hline 64 \end{array}$$

$$\begin{array}{r} 1621 \quad 406 \\ \hline 324 \end{array}$$

$$\begin{array}{r} 16451 \quad B221 \\ \hline B225 \end{array}$$

$$-4$$

∴ In order to get the perfect square root, we will have to add 4 in the given number.

22. Let the total expenditure and MRP costs are x and y, respectively.

$$\text{Then, } x \times \frac{100+15}{100} = y \times \frac{100-10}{100}$$

$$\frac{x}{y} = \frac{90}{115}$$

$$= \frac{18}{23}$$

23. Given, total estimated cost = (2000 T he selling price after discount of 20%, 10% and 5%.

$$= 2000 \times 100 - 20 \times 100 - 10 \times 100 - 5 \times 100$$

$$= 2000x - 2000 - 1000 - 500$$

$$= 1360$$

24. The work done by Akansha in one day =  $\frac{1}{6}$

and the work done by Vasudha in one day =  $\frac{1}{5}$

The ratio of work done by both =  $\frac{1/6}{1/5} = \frac{5}{6}$

$$= 5:6$$

If they both work together then the total shares of one y Vasudha

$$= 660 \times \frac{6}{5+6} = 360$$

$$= 360$$

25. LCM of 16, 18 and 20 = 720 The

required number =  $720k + 4$

Now, we have to select the value of k such that the

required number will be completely divisible by 7.

$$\text{If } k=4, \text{ then } 720 \times 4 + 4 = 2880 + 4$$

$$= 2884 = 412 \times 7$$

∴ The required number = 2884



26. As 'battle' causes 'ruination', 'fire' causes 'burn'.
27. As the workplace of 'doctor' is 'hospital', the workplace of 'chef' is 'kitchen'.
28. As 'tap' is available for drinking 'water', a 'cup' is used for drinking 'tea'.
29. Except 'bat', all birds lay eggs.
30. Except 'horse' all animals given in options are wild animals but horse is a pet animal.
32. Margaret Thatcher was a British stateswoman who served as Prime Minister of the United Kingdom from 1979 to 1990. She was the longest-serving British Prime Minister of the 20th century and the first woman to have been appointed.
33. Secretary-General is the principal administrative officer of the United Nations. The Secretary-General is customarily appointed for a five-year term, although the length of the term is discretionary because there is technically no limit on number of five-year terms a Secretary-General may serve.
35. As per the articles 352, 356 and 360 in the Constitution of India, President of India have been given extraordinary power to declare an emergency to meet any threat to the country. Those powers to President of India in Constitution are called emergency provisions.
36. Length of day and night does vary

according to the season and latitudinal position. At the equator, the day and night are mostly of same lengths all round the year. As we go poleward either one of them becomes longer.

37. Zakir Hussain was selected as the second Vice-President of India in 1962. Five years later, he was also elected as the 3rd President of the country. However, he could only occupy the position for 2 years. On 3rd May, 1969, he was passed away while working in office.
38. The 2014 Uber Cup was 25th badminton tournament. It was held on 18-25th May, 2014 at the Siri Fort Sports Complex in New Delhi. China became champion after beating Japan in the final.
39. The First Amendment of the Constitution of India, enacted in 1951, made several changes to the Fundamental Rights provisions of the Constitution. It inserted Ninth Schedule to the Constitution to protect the law and reform and other laws present in it from the judicial review.
40. The government has appointed SSMundra, as Deputy Governor of the Reserve Bank of India (RBI) on 31st July, 2014. He has been given a three-year term. Mundra prior to his elevation, he was the executive director of Union Bank of India.
41. Lalitha Kumaramanglam was appointed as the chairperson of the National Commission for

Women (NCW). She runs Prakriti, an NGO and contested the Lok Sabha elections in 2004 and 2009 respectively.

42. Moraines are formed from debris previously carried along by a glacier and normally consist of somewhat rounded particles ranging in size from large boulders to minute glacial flour.

43. Article 124(3) of the Constitution prescribes that for appointment as a judge of the Supreme Court, a person

- must be a citizen of India,
- has been a judge of any High Court for at least 5 years, or
- has been an advocate in a High Court for 10 years or is in the opinion of the President a distinguished jurist

44. The Olympic flame is a symbol of the Olympic Games. The fire was introduced at the Games of the IX Olympiad, 1928 in Amsterdam. It was the first time when ceremonially lighted and burnt in a giant torch at the entrance of the stadium at Amsterdam and became a part of the modern Olympic Games ever since. The first fire of the Olympic Winter Games was introduced at the IVOlympic Winter Games, 1936 in Garmisch-Partenkirchen.

45. International Workers' Day, also known as Labour Day, or Workers' Day is often referred to as May Day. It is a celebration of labourers and the working classes that is promoted by the international labour movement which occurs every year on May Day (1st May).

46. The cytoplasm is the fluid present outside the nucleus and which extends to the plasma membrane.

47. The point where the river comes to the end usually before entering to a sea is called a mouth of a river. Therefore, mouth of a river is the river valley that separates the land and ocean sea.

48. The Supreme Court of Judicature at Fort William was founded in 1774 in Calcutta. It replaced the Mayor's Court of Calcutta and was British India's highest court from 1774 until 1862, when the High Court of Calcutta was established. The first Chief Justice was Sir Elijah Impey from 1774 to 1783 but in 1783 he was recalled to England for impeachment.

49. It was Kushan King Kaniska (Kingdom of Gandhara) who greatly encouraged Mahayana Buddhism. Before Kaniska, Buddha was not represented in human form but during his period Buddha was represented in human form. They (Kushan) built some of the oldest Buddha statues and they even enlarged the old and antique Buddha statues.

50. Muhammad Shah was Mughal emperor from 1719 to 1748. With the help of the Sayyid brothers, he ascended the throne at the young age of 17. His pen-name was Sada Rangila (ever

joyous) therefore he is often referred to as Muhammad Shah Rangila.

51. Elephant grass (Pennisetum purpureum) also known as Napier grass, savanna grass or Uganda grass, is a species of perennial tropical grass native to the African grasslands. It grows in dense clumps of up to 10 feet tall. In the savannas of Africa it grows along lake beds and rivers where the soil is rich.

52. In vacuo is used where high dimensional stability is required, such as precision instruments, clocks, seismic creep gauges, etc.

58. Article 148 of the Constitution has established the office of Comptroller and Auditor General (CAG) of India. Rajiv Mehri audits all receipts and expenditure of the Government of India and the State Governments, including those of bodies and authorities substantially financed by the government.

The current CAG of India is Rajiv Mehri, who assumed office on 25th September, 2017. He is the 13th CAG of India.

61. Xylem vessels are responsible for conduction of water in plants.

62. The sweat gland, in mammals generally excretes salt substances which make our skin saline.

75. Atom that has same atomic number (Z) but different mass number (A) is called isotopes,

e.g.  ${}^1_1\text{H}$ ,  ${}^2_1\text{H}$ ,  ${}^3_1\text{H}$  are three isotopes of hydrogen.

76. Lichen is the symbiotic association of algae and fungi. These components live together benefitting each other.

80. Brihadishvara Temple also known as Thanjavur Temple is a Hindu temple dedicated to Shiva. It is located in Thanjavur, Tamil Nadu and built by Raja Raja Chola I between AD 1003 and 1010.

81. The density and refractive index of diamond are 3.67 and 2.44 respectively. It is brilliant due to total internal reflection.

82. Helium is an inert gas.

96. Bankim Chandra Chatterjee was a famous Bengali poet, writer and journalist. He was the author of Anandamath containing the National Song of India - Vande Mataram. He published a monthly literary Bengali magazine called Bangadarshan in which he published novels, stories, humorous sketches, historical essays, informative articles, religious discourses, literary criticisms and reviews.

99. The rotations of most planets are prograde, with the exceptions of Venus and Uranus, which have retrograde rotations (i.e. East to West). Retrograde motion is in the direction opposite to the movement of something else and the contrary of direct or prograde motion.



WWW.SARKARINAUKARIIND.COM