

**Memory Based  
Paper of  
RBI Grade B  
Prelims  
2017**

**Reasoning Ability**

## Memory Based Reasoning Ability Paper for RBI Grade B Prelims 2017

**Directions (1-6):** Study the following information carefully and answer the given questions.

When a word and number arrangement machine is given an input line of words and numbers, it arranges them following a particular rule. The following is an illustration of input and rearrangement : (All the numbers are two-digit numbers before performing the operations)

**Input :** tweet 43 also 13 suit 29 money kite 71 59

**Step I :** Is tweet 43 13 suit 29 money kite 59 73

**Step II :** kt Is tweet 43 13 suit 29 money 73 61

**Step III :** mny kt Is tweet 13 73 61 47 31

**Step V :** twt st mny kt Is 73 61 47 31 17

Step V is the last step of the above arrangement as the intended output of arrangement is obtained. As per the rules followed in the given steps, find the appropriate steps for the given input.

**Input :** neat bites 23 11 piles your 37 79 give 47

1. As per the given arrangement, in step IV, 'pls is related to 'gv' following a certain pattern. Following the same pattern, '83' is related to '41' in step III. In step V, to which of the following is 'bts' related to following the same pattern?

- (a) gv
- (b) 41
- (c) 53
- (d) nt
- (e) yr

2. Which is the third element to the left of the seventh element from the left end in step V of the given arrangement?

- (a) gv
- (b) 53
- (c) nt
- (d) 53
- (e) 83

3. How many elements are there between 'your' and '83' in step III of the given arrangement?

- (a) None
- (b) Two
- (c) Three
- (d) One
- (e) More than three

4. Which is the fourth element to the right of '11 in the Step IV of the given arrangement?

- (a) 29
- (b) 41
- (c) bts
- (d) 83
- (e) your

5. In which one of the following steps is 'bts 11 your' found consecutively in the same order in the given arrangement?

- (a) Step II
- (b) Step III
- (c) There is no such step
- (d) Step V
- (e) Step IV

6. In step II of the given arrangement, which elements appear to the immediate right and immediate left of 'neat' respectively?

- (a) '37' and 'piles'
- (b) 'give' and '11'
- (c) '11 and 'your'
- (d) '23' and 'bts'
- (e) piles and gv

**Directions (7-11):** Study the given information carefully to answer the given questions.

Seven people P, Q, R, S, T, U and V are related to each other in some or the other way. Each person is of a

different age, but not necessarily in the same order. (Note: It is assumed that the husband is older than the wife.)

T is older than V but younger than U. P is the mother of Q. R is the sister-in-law of P. R is unmarried. T is the daughter-in-law of S. S is the eldest member of the family. U is the father of only R and V. U does not have any sibling. V does not have any son. R is older than V. The third eldest member of the family is 54 years old. The youngest member of the family is 4 years old.

**7. If in the given arrangement,  $Q + V = 31$ , then what is the possible age of R?**

- (a) 27
- (b) 56
- (c) 23
- (d) 59
- (e) 30

**8. If P is 24 years old, what will be the sum of ages of P and T?**

- (a) 28
- (b) 78
- (c) 64
- (d) 49
- (e) 75

**9. How is T related to Q?**

- (a) Grandmother
- (b) Granddaughter
- (c) Aunt
- (d) Mother-in-law
- (e) Mother

**10. If M is married to S, then how is S related to R?**

- (a) Grandmother
- (b) Granddaughter
- (c) Grandfather
- (d) Uncle
- (e) Cannot be determined

**11. Who amongst the following is/are younger than V?**

- (a) Both P and U
- (b) Only Q
- (c) Only P
- (d) Both P and Q
- (e) No one

**Directions (12-16): Study the given information carefully to answer the given questions.**

Eight people A, B, C, D, E, F, G and H live on eight different floors of a building but not necessarily in the same order. The lowermost floor of the building is numbered one, the one above that is numbered two and so on till the topmost floor is numbered eight. Each one of them ran for a different distance in a marathon – 2300 m, 3800 m, 5000 m, 6400 m, 7200 m, 6300 m, 9100 m and 10000 m but not necessarily in the same order.

The one who ran for 5000 m lives on an even numbered floor above floor number 5. Only three people live between the one who ran for 5000 m and G. The one who ran for 9100 m lives immediately above E. Only two people live between the one who ran for 9100 m and A. A does not live on the topmost floor. The total distance run by people living on floor number 3 and floor number 6 is 11400 m. The one who ran for 6300 m, lives immediately above the one who ran for 3800 m. Neither E nor A ran for 6300 m. Only two people live between B and the one who ran for 6300 m. The one who lives immediately below D ran for a distance more than that of B, but not the most. No one lives between H and the one who ran for 7200 m. E did not run for 7200 m. The one who ran for 10000 m lives immediately above D. C and G together ran for 16,300 m. C ran more than G.

**12. If M ran for 2000 m more than B, then for how many meters did M run?**

- (a) 5200 m
- (b) 5800 m
- (c) 4900 m
- (d) 70000 m
- (e) 4300 m

**13. Which of the following statements is true with respect to the given arrangement?**

- (a) D lives on the topmost floor.
- (b) Only two people live between G and F
- (c) None of the given option is true
- (d) The one who ran for 2300m lives immediately above F.
- (e) A ran for 9100 m

**14. Who amongst the following lives immediately above the one who ran for 7200 m?**

- (a) The one who ran for 10000 m
- (b) H
- (c) F
- (d) The one who ran for 3800 m
- (e) A

**15. Which of the given combinations is correct as per the given arrangement?**

- (a) Floor number 7- 3800 m
- (b) Floor number 3- E
- (c) C- 9100 m
- (d) D- 5000 m
- (e) Floor number 2-7200 m

**16. How many metres did F and A together run?**

- (a) 16200 m
- (b) 7300 m
- (c) 12900 m
- (d) 15300 m
- (e) 11400 m

**Directions (17-22): Study the given information carefully and answer the given questions.**

Twelve people are sitting in two parallel rows containing six people each, in such a way that there is an equal distance between adjacent persons. In row-1 S, T, U, V, W and X are seated and all of them are facing south. In row-2 M, N, O, P, Q and R are seated and all of them are facing north.

Therefore in the given seating arrangement, each member seated in a row faces another member of the other row. No two people with names starting with consecutive neighbor of each other. For e.g. A is not an immediate neighbor of B. B is not an immediate neighbor of either A or C and so on. Each of them also likes a different movies viz. Vertigo, Cinderella, Twilight, Gladiator, Uninhabited, Inception, Frozen, Watchmen, Tangled, Aladdin, Hero and Wanted.

**[Note :** None of the information given is necessary in the same order.]

T sits at an extreme end of the line. Only two people sit between T and the one who likes Frozen. N sits second to the left of the one who faces the one who likes Frozen. The one who likes Twilight sits second to the right of O. T does not face the one who like Twilight. Only two persons sit between P and R. U does not sit an extreme end of the line. X is not an immediate neighbor of T. V faces the one who likes Tangled. Only three people sit between the ones who like Tangled and Vertigo. R likes Inception. Only one people sits between R and M. One of the immediate neighbours of M faces the one who likes Hero. The one who likes Cinderella sits to the immediate left of S. P sits second to the right of the one who likes Aladdin. Only one person sits between the one who likes watchmen and wanted. T does not like wanted. N does not like Gladiator.

**17. Which of the following statements is true as per the given arrangement?**

- (a) U likes Watchmen.
- (b) Q faces one of the immediate neighbours of W.
- (c) P is an immediate neighbor of N.
- (d) None of the given statements is true.
- (e) S sits between V and X.

**18. Who amongst the following likes uninhabited?**

- (a) P
- (b) W
- (c) S
- (d) X
- (e) N

**19. Who amongst the following is facing Q?**

- (a) X
- (b) V
- (c) The one who likes Watchmen
- (d) S
- (e) The one who likes Frozen

**20. Four of the following five are alike in a certain way based on the given arrangement and hence from a group. Which of them does not belong to that group?**

- (a) The one who likes Tangled
- (b) N
- (c) The one who likes Vertigo
- (d) The one who likes Gladiator
- (e) V

**21. W is related to Cinderella and P is related to Inception in a certain way based on the given arrangement. To which of the following is U related, following the same pattern?**

- (a) The one who faces P
- (b) The one who faces O
- (c) T
- (d) S
- (e) The one who likes Uninhabited

**22. What is the position of Q with respect to the one who likes Inception?**

- (a) Third to the right
- (b) Second to the right
- (c) Third to the left
- (d) Second to the left
- (e) Fourth to the left



**Direction (23) : Read the following information and answer the question.**

'If we take a close look at the balance sheets of previous five years, it shows that the amount of loans taken by the company against fixed assets has only increased, the result of which is poor financial health of the company this year'. Financial report of Company B.

**23. Which of the following can be inferred from the statement of the financial report of the company B?**

- (i) Decreasing the amount of loans against fixed assets will improve the financial health of company B.
- (ii) The value of fixed assets of Company B has decreased by taking loans against them.
- (iii) An analysis of balance sheets of a company throws light on its financial health.
- (iv) Company B had not taken any loans in any financial year other the said five years.
- (a) None can be inferred
- (b) Both 1 and 4
- (c) Both 1 and 3
- (d) Only 4
- (e) Only 2

**Direction (24) : Study the following information and answer the question given.**

School X had been allowing local people to use their basketball court and cricket ground after school hours by charging a fees for the same. This had helped the school generate a significant amount of additional income in the past few years. However, this year the school decided to discontinue the practice.

**24. Which of the following statements does not strengthen the decision of School X of discontinuing the practice?**

- (a) The number of people using the basket ball court and cricket ground of school is slightly decreased last year as other schools in the vicinity also started following the same practice.
- (b) School X could not win even a single trophy in past few years annual inter-school games competition as the participants did not get adequate time for practice due to access of grounds to local people.
- (c) Complaints by the nearby residents of school X have increased about the increased disturbance created by the users of the basketball court and cricket ground beyond school hours.
- (d) The damage caused to the basketball court and cricket ground of school X has increased

significantly due to over-use by the subsiders thus not allowing the students to play.

- (e) The governing board of school X denied the access to school premises in any number by the subsiders (other than parents of students) in this year's board meeting for security reasons.

**Directions (25-30): Study the information carefully and answer the questions.**

Professors O, P, Q, R, S, T, U, V, W, X, Y and Z had lectures in different months of the same year viz. January, March, April, May, June and December but not necessarily in the same order. All the lectures are either in 12th or 25th of these months. No two professors had lectures in the same day. Each professor also likes a different colour namely Red, Blue, Green, Yellow, Orange, White, Pink, Silver, Maroon, Violet, Brown and Grey but not necessarily in the same order.

**Note :** No lecture was conducted in any other month of the same year.

V had a lecture on 12th April. Only two people had lectures between V and Q. The one who likes red had a lecture in the same month as Q. Q does not like red. The one who likes White had a lecture on an even numbered date of the month which had exactly 30 days. V does not like white. Only three people had a lecture between the one who likes White and the one who likes Violet. As many people had lectures between the one who likes red and O as between Q and the one who likes White. Only two people had lectures between O and the one who likes Blue. U had a lecture on 12th of a month before the one who likes Violet. U likes neither red nor blue. Only two people had lectures between U and the one who likes Orange. Only two people had lectures between the one who likes Orange and the one who likes Green. X had a lecture in the same month as the one who likes green. As many people had a lecture after W as before X. Only one person had a lecture between W and Z. Z had a lecture before W. the one who likes Pink had a lecture on an odd numbered day in the same month as Z. P had a lecture on 12th of the same month as R. Only two people had lectures between P and the one who likes Yellow. The one who likes maroon had a lecture before P. T likes brown. S does not like Red. W does not like Grey.

**25. Which of the following combinations indicate those who had a lecture in March?**

- (a) The one who likes Maroon and R
- (b) U and X
- (c) P and R
- (d) The one who likes Green and the one who likes pink
- (e) R and V

26. Which of the following combination is correct?

- (a) W-White
- (b) X-Pink
- (c) U-Grey
- (d) V-Violet
- (e) O-Red

27. If Y is related to White and P is related to Violet based on the given arrangement, then which of the following is related to O following the same pattern?

- (a) Grey
- (b) Pink
- (c) Brown
- (d) Maroon
- (e) Silver

28. How many people have lectures between the lectures by X and Y?

- (a) Two
- (b) Four
- (c) None
- (d) One
- (e) Three

29. Four of the following five are alike in a certain way based on the given seating arrangement and hence form a group. Which of the following does not belong to that group?

- (a) 12-Y
- (b) 25-O
- (c) 12-Green
- (d) 25-T
- (e) 12-Pink

30. Who amongst the following had lecture in the same month as S?

- (a) V
- (b) The one who likes Grey
- (c) The one who likes White
- (d) The one who likes Yellow
- (e) W

### Instructions

Study the following information carefully and answer the questions given below :

In a certain code language, 'always follow your passion' is written as 'ke ag mo jp'. 'great passion for music' is written as 'mo bu sc nd'. 'music always on mind' is written as 'fi sc ag lw'. 'follow music on

twitter' is written as 'ty jp fi Sc'. (All codes are two-letter codes only)

31. What is the code for 'follow' in the given code language

- (a) ke
- (b) jp
- (c) Other than those given as options
- (d) fi
- (e) sc

32. What is the code for 'mind' in the given code language ?

- (a) bu
- (b) ag
- (c) lw
- (d) ke
- (e) ty

33. In the given code language, what does the code 'nd' stand for ?

- (a) either 'for' or 'great'
- (b) music
- (c) mind
- (d) always
- (e) either 'music' or 'on'

34. If 'music always help' is coded as 'ag hr sc' in the given code language, then what is the code for 'help your twitter'?

- (a) ke ty bu
- (b) hr tw ag
- (c) hr ke sc
- (d) ty ke hr
- (e) bu ty hr

35. What may be the possible code for 'divine passion' in the given code language?

- (a) mo ag
- (b) bu mo
- (c) xy ag
- (d) xy bu
- (e) mo xy

### Instructions

In each of the questions, below two/three statements are given followed by conclusions/groups of conclusions numbered I and II. You assume all the statements to be true even if they seem to be at variance from the commonly known facts and then decide which of the given two conclusions logically follows from the information given in the statements.

Give answer A if only conclusion I follows  
 Give answer B if only conclusion II follows  
 Give answer C if either I or II follows  
 Give answer D if neither I nor II follows  
 Give answer E if both I and II follows

**36. Statements: Some squares are circle.**

No circle is a triangle.

No line is square .

Conclusions:

- (i) All squares can never be triangles.
- (ii) Some lines are circles.
- (a) Only conclusion I follows
- (b) Only conclusion II follows
- (c) Either I or II follows
- (d) Neither I nor II follows
- (e) Both I and II follows

**37. Statements: Some squares are circles.**

No circle is a triangle.

No line is a square.

Conclusions:

- (i) No triangle is a square.
- (ii) No line is a circle.
- (a) Only conclusion I follows
- (b) Only conclusion II follows
- (c) Either I or II follows
- (d) Neither I nor II follows
- (e) Both I and II follows

**38. Statements: All songs are poems.**

All poems are rhymes.

No rhyme is a paragraph.

Conclusions:

- (i) No song is a paragraph.
- (ii) No poem is a paragraph.
- (a) Only conclusion I follows
- (b) Only conclusion II follows
- (c) Either I or II follows
- (d) Neither I nor II follows
- (e) Both I and II follows

**39. Statements: All songs are poems.**

All poems are rhymes.

No rhyme is a paragraph.

Conclusions:

- (i) All rhymes are poems.
- (ii) All songs are rhymes.

- (a) Only conclusion I follows
- (b) Only conclusion II follows
- (c) Either I or II follows
- (d) Neither I nor II follows
- (e) Both I and II follows

**40. Statements: Some dewes are drops.**

All drops are stones.

Conclusions:

- (i) Atleast some dewes are stones
- (ii) Atleast some stones are drops.
- (c) Only conclusion I follows
- (d) Only conclusion II follows
- (e) Either I or II follows
- (f) Neither I nor II follows
- (g) Both I and II follows

**Instructions**

Study the given information carefully to answer the given questions.

Seven athletes — M, N, O, P, Q R and S live on seven . different floors of a building but not necessarily in the same order. The lower most floor of the building is numbered 1, the one above that is numbered 2 and so on till the topmost floor is numbered 7. Each one of them runs for a different distance in a marathon 750 m, 1200 m, 2200m, 2900 m, 3600 m, 4300 m and 5000 m, but not necessarily in the same order. The one who runs for 4300 m lives on floor numbered 4. Only one person lives between M and the one who runs for 4300 m. Only two people live between M and S. The one who runs for 1200m lives on one of the even numbered floors above R. Only two people live between the one who runs for 1200 m and the one who runs for 2900 m. N lives on one of the floors above M. N runs for 2100 m more than the one who lives on floor numbered 3. The number of people living between the one who runs for 5000 m and S is same as the number of people living between M and R. Only one person lives between R and Q. The one who runs for the shortest distance lives immediately below Q. Only one person lives between P and the one who runs for 3600 m.

**41. Which of the following live(s) between O and the one who runs for 2900 m ?**

- (a) Only the one who runs for 2200m
- (b) Both M and R
- (c) Both M and the one who runs for 3600m
- (d) Both P and the one who runs for 2200m
- (e) Only R

**42. As per the given arrangement, four of the following five are alike in a certain way and so form a group.**

Which one of the following does not belong to the group ?

- (a) M and 4300m
- (b) Floor numbered 7 and S
- (c) Floor numbered 4 and N
- (d) P and 3600m
- (e) Floor numbered 5 and 5000m

**43. How many people live between S and O ?**

- (a) Five
- (b) One
- (c) None
- (d) Four
- (e) Three

**44. Who amongst the following runs for 2900 m ?**

- (a) S
- (b) M
- (c) N
- (d) P
- (e) Q

**45. 170. If the total distance covered by B and M is 4800m, then how much did B run alone ?**

- (a) 4050 m
- (b) 2600 m
- (c) 1200 m
- (d) 3600 m
- (e) 1900 m

#### Instructions

For the following questions answer them individually

**46. In a row of thirty-seven boys facing South R is the eighth to the right of T who is fourteenth to the left of D. How many boys are there between D and R in the row ?**

- (a) 4
- (b) 6
- (c) 8
- (d) Data inadequate
- (e) None of these

#### Instructions

Study the following information and answer the given questions.

- D is daughter of N. E is wife of N.
- G is sister of D. C is married to G.
- N has no son. K is mother of E.
- Q is only daughter of C.

**47. How Q is related to D ?**

- (a) Daughter
- (b) Cousin
- (c) Niece
- (d) Sister in law
- (e) Cannot be determined

**48. How N is related to K ?**

- (a) Brother- in- law
- (b) Cousin
- (c) Son- in- law
- (d) Sister
- (e) Brother

**49. How many daughters N have ?**

- (a) One
- (b) Three
- (c) Two
- (d) Cannot be determined
- (e) None of these

**50. This consists of a decision and two statements numbered I and II given below it. You have to decide which of the given statements weaken/s or strengthen/s the decision and decide the appropriate answer.**

**Decision:** The Government of the State decided that no car in the city X shall be allowed to have tinted glasses from next month.

- (i) Most of the crimes reported in the past few months in city X had an involvement of cars with tinted glasses.
- (ii) Tinted glasses were responsible for a large number of accidents in city X as they affected visibility during night.
- (a) Statement I strengthens the decision while Statement II weakens the decision.
- (b) Both Statement I and Statement II weaken the decision.
- (c) Both Statement I and Statement II strengthen the decision.
- (d) Both Statement I and Statement II are neutral Statements.
- (e) Statement I weakens the decision while Statement II strengthens the decision.

**51. This question consists of a Situation and three Statements numbered I, II and III given below it. You have to decide which of the given Statements may be a reason for the given Situation.**



**Situations:** Farmers of State D, who traditionally cultivate crop M, bore considerable losses owing to deficiency of nutrient Z in the soil which is vital for adequate growth of crop M. However, this year the farmers registered a 40% growth in production.

- (i) The farmers of State D have started producing crop Y only (which does not require nutrient Z for growth) since the past two years.
- (ii) Since the past two years the farmers of State D have been adding a fertilizer to the soil which contains nutrient Z.
- (iii) The nutrition this year was 200 more than the previous year in state D.
- (a) Either I or III
- (b) Only I
- (c) All I, II and III
- (d) Only III
- (e) Either II or III

**52. In which of the given expressions does the expression  $R \leq T$  definitely holds true?**

- (a)  $T \geq L \geq M, R \geq O > M$
- (b)  $T > L \leq M, R \leq M \leq O$
- (c)  $T > L > M, R \geq O \geq M$
- (d)  $T \geq L \geq M, R \leq O \leq M$
- (e)  $T > L = M, R < O \leq M$

**Directions (53-54):** In these questions, two/three statement followed by two conclusions numbered I and II have been given. You have to take the 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 the given statements?

**Given answer :**

- A. If only conclusion I is true
- B. If both conclusions I and II are true
- C. If either conclusion I or II is true
- D. If only conclusion II is true
- E. If neither conclusion I nor II true

**Statements :**

Some planets are stars.

All stars are comets.

No comet is an astronaut.

**53. Conclusions :**

- (i) No star is an astronaut
- (ii) All astronauts are planets

**54. Conclusions :**

- (i) I. Some planets being astronauts is a possibility.
- (ii) II. At least some comets are planets.

**Directions (55-58):** Study the following information and answer the questions.

Trishaa starts walking from point A, walks 12 m to the south and reaches point B. She then takes a left turn and walks 7 m to reach point C. She then takes a left, walks 5 m and reaches Point D. From Point D she turns left, walks 11 m and stops at point E. Point P is to the west of Point B. Rishi who is standing at point P walks for a distance equal to the shortest distance between B and E and reaches Point Q. From Point Q he takes a left turn, walks for a certain distance and reaches point E.

**55. Mehul starts walking towards south from Point B. He walks for a certain distance to reach Point K. He then takes a left turn walks for 10 m, takes another left turn and stops after walking for 9 m. If his final position is 3 m to the east of Point D, what is the distance between Point B and Point K?**

- (a) 4 m
- (b) 6 m
- (c) 5 m
- (d) 2 m
- (e) Cannot be determined

**56. Point M is 9 m to the north of Point Q. From Point M, which of the following walking directions would lead to point A?**

- A. 12 m towards west, turn right and walk for 2 m, then turn right and walk for 7 m.
- B. 4 m towards east, turn left and walk for 3 m, then turn right and walk 5 m.
- C. 3 m towards north, turn left, walk 19 m, turn left and walk 5 m.
- D. 3 m towards north, turn right and walk for 4 m.
- (a) Both A and D
- (b) Only D
- (c) Both B and C
- (d) Only C
- (e) Only B

**57. In which direction is point C with respect to point P?**

- (a) North-East
- (b) West

- (c) East
- (d) South-East
- (e) North-West

**58. Point Z is 9 m to the east of Point A. Arun starts from point Z, walks towards south, takes a right turn and walks for a certain distance to reach Point D. What is the total distance that Arun has to walk in order to reach Point D ?**

- (a) 20 m
- (b) 11 m
- (c) 19 m
- (d) 9 m
- (e) 15 m

**In the question below are two conclusions followed by some statements. You have to choose the correct set of statements that logically satisfies both the conclusions even if they seem to be at variance with commonly known facts.**

**59. Conclusion:**

Some Pet are Set

All Set are Let

**Statements:**

- A. All pet are Set.Some let are Pet.Some Set are Met

- B. All Set are Met.No Met are Let.Some Pet are Let.
- C. Some Pet are Set.No Let are Met.All Set are Met.
- D. All Pet are Set.All Set are Met.All Met are Let.
- E. None of these.

- (a) A
- (b) B
- (c) D
- (d) E
- (e) C

**60. Conclusion:**

- (i) Some C are B

- (ii) All B are P

**Statements:**

- A. No P is B.Some B is V.All C is P
- B. No P is C.All C is B,Some B is V
- C. Some P is B.Some B is C.No C is V.
- D. All V is B.All B is P.Some C is V.
- E. None of the above.

- (a) A
- (b) D
- (c) B
- (d) C
- (e) E

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