**Course: IBPS RRB Prelims**

**Subject: Full Length Test**

**Time:25 Minutes**

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Directions (1-5): In these questions, two equations numbered I and II are given. You have to solve both the equations and give answer:

(a) if x < y

(b) if x > y

(c) if x ≤ y

(d) if x ≥ y

(e) if relationship between x and y cannot be determined

Q1. I. x² – 9x + 18 = 0

II. 5y² – 22y + 24 = 0

L1Difficulty 2

QTags Quadratic Inequalities

QCreator Deepak Rohilla

Q2. I. 6x² + 11x + 5 = 0

II. 2y² + 5y + 3 = 0

L1Difficulty 2

QTags Quadratic Inequalities

QCreator Deepak Rohilla

Q3. I. x² + 10x + 24 = 0

II. y² –

L1Difficulty 2

QTags Quadratic Inequalities

QCreator Deepak Rohilla

Q4. I. 10x² + 11x + 1 = 0

II. 15y² + 8y + 1 = 0

L1Difficulty 2

QTags Quadratic Inequalities

QCreator Deepak Rohilla

Q5. I.15x² – 11x + 2 = 0

II. 10y² – 9y + 2 = 0

L1Difficulty 2

QTags Quadratic Inequalities

QCreator Deepak Rohilla

Directions (6-10): What will come in place of question mark (?) in the following number series?

Q6. 7 20 46 98 202 ?

(a) 420

(b) 410

(c) 310

(d) 320

(e) 405

L1Difficulty 2

QTags MISSING SERIES Quant

QCreator Deepak Rohilla

Q7. 210 209 213 186 202 ?

(a) 138

(b) 77

(c) 177

(d) 327

(e) 187

L1Difficulty 2

QTags MISSING SERIES Quant

QCreator Deepak Rohilla

Q8. 27 38 71 126 203 ?

(a) 212

(b) 202

(c) 301

(d) 312

(e) 302

L1Difficulty 2

QTags MISSING SERIES Quant

QCreator Deepak Rohilla

Q9. 435 354 282 219 165 ?

(a) 103

(b) 112

(c) 120

(d) 130

(e) 140

L1Difficulty 2

QTags MISSING SERIES Quant

QCreator Deepak Rohilla

Q10. 4 200 369 513 634 ?

(a) 788

(b) 715

(c) 734

(d) 755

(e) 744

L1Difficulty 2

QTags MISSING SERIES Quant

QCreator Deepak Rohilla

Directions (11-15): Bar chart given below shows per gram rate of Rhodium and Plutonium on different days. Study the data carefully and answer the question.

Q11. Sandeep buy 3 grams of Plutonium on Tuesday and 5 grams of Rhodium on Wednesday. Find the amount paid by him in total?

(a) 28,400

(b) 29,200

(c) 28,600

(d) 28,800

(e) 28,200

L1Difficulty 2

QTags Bar Graph DI

QCreator Deepak Rohilla

Q12. Average per gram price of Plutonium on all the four days together is how much more than average per gram price of Rhodium on all the four days together.

(a) 125

(b) 150

(c) 175

(d) 200

(e) 225

L1Difficulty 2

QTags Bar Graph DI

QCreator Deepak Rohilla

Q13. On Friday per gram price of both Rhodium and Plutonium increases by 10% and 20% respectively as compare to price on Thursday. Find the sum of per gram price of Rhodium and Plutonium on Friday?

(a) 7825

(b) 8095

(c) 7755

(d) 8460

(e) 8120

L1Difficulty 2

QTags Bar Graph DI

QCreator Deepak Rohilla

Q14. What is the ratio of per gram price of Rhodium and Plutonium together on Monday to that on Thursday ?

(a) 45 : 47

(b) 47 : 45

(c) 47 : 49

(d) 49 : 47

(e) 49 : 45

L1Difficulty 2

QTags Bar Graph DI

QCreator Deepak Rohilla

Q15. Aman bought 2 grams of both Rhodium and Plutonium on Wednesday and sell it on Thursday at the given price. Find the amount gained by him?

(a) 100

(b) 150

(c) 250

(d) 300

(e) 200

L1Difficulty 2

QTags Bar Graph DI

QCreator Deepak Rohilla

Q16. The average age of the mother and her 4 children is 10 years which is reduced by 6 years if the age of the mother is excluded. How old is the mother?

(a) 34 years

(b) 30 years

(c) 38 years

(d) 40 years

(e) 35 years

L1Difficulty 2

QTags Average

QCreator Deepak Rohilla

Q17. The average income of a person for the first 6 days is Rs. 29, for the next 6 days it is Rs. 24, for the next 10 days it is Rs. 32 and for the remaining days of the month it is Rs. 30. Find the average income per day (Assume month is of 30 days).

(a) Rs. 31.64

(b) Rs. 30.64

(c) Rs. 29.27

(d) Rs. 34.27

(e) Rs. 32.27

L1Difficulty 2

QTags Average

QCreator Deepak Rohilla

Q18. A fraction is increased by 20% and after that numerator increases by 240% and denominator increased to 50% so that resultant becomes What is the Original fraction.

(a)

(b)

(c)

(d)

(e) None of these

L1Difficulty 2

QTags Ratio And Proportion

QCreator Deepak Rohilla

Q19. If one side of rectangle is increased by 10% and other side of rectangle is decreased by 20%. find out the net percentage effect on the area of rectangle?

(a) 12%

(b) 15%

(c) 10%

(d) 13%

(e) 18%

L1Difficulty 2

QTags Mensuration

QCreator Deepak Rohilla

Q20. **A can do a work in 24 days and B can do it in 18 days. They started the work together, after 5 days of the work, A left the job. Then in how many days B can complete the remaining work?**

(a)

(b)

(c)

(d)

(e)

L1Difficulty 2

QTags Time And Work

QCreator Deepak Rohilla

Directions (21-25): What approximate value should come in place of question mark (?) in the following questions? (You are not expected to calculate the exact value.)

Q21. ? + 19.93% of 249.9 + 14.9% of 640 = (5.98)³

(a) 90

(b) 70

(c) 80

(d) 100

(e) 75

L1Difficulty 2

QTags Approximation

QCreator Deepak Rohilla

Q22.

(a) 600

(b) 550

(c) 400

(d) 500

(e) 450

L1Difficulty 2

QTags Approximation

QCreator Deepak Rohilla

Q23.

(a) 12

(b) 11

(c) 14

(d) 16

(e) 13

L1Difficulty 2

QTags Approximation

QCreator Deepak Rohilla

Q24. ? % of 599.87 – (17.93)² + (9.9)² =39.9

(a) 37

(b) 40

(c) 56

(d) 48

(e) 44

L1Difficulty 2

QTags Approximation

QCreator Deepak Rohilla

Q25. 66.02% of 450 + 33.01% of 599.98 = 66.02% of ?

(a) 700

(b) 725

(c) 775

(d) 800

(e) 750

L1Difficulty 2

QTags Approximation

QCreator Deepak Rohilla

Q26. Speed of boat in still water is 18 km/h and ratio of time taken by upstream to downstream to cover same distance is 11:7. Find out the speed of current?

(a) 11 km/h

(b) 4 km/h

(c) 6 km/h

(d) 5 km/h

(e) 8 km/h

L1Difficulty 2

QTags Boat And Stream

QCreator Deepak Rohilla

Q27. A 350-meter long train crosses a platform in 54 seconds while it crosses a signal pole in 18 seconds. What is the length of the platform?

(a) 350 meters

(b) 700 meters

(c) 600 meters

(d) 450 meters

(e) 550 meters

L1Difficulty 2

QTags Trains

QCreator Deepak Rohilla

Q28. Two pipe A and B can fill the tank in 24 min and 30 min respectively. If pipe A opened for half of time and rest of tank fill by the pipe A and B together. Find out the total time taken to fill the tank?

(a)

(b)

(c)

(d)

(e)

L1Difficulty 2

QTags Pipes And Cisterns

QCreator Deepak Rohilla

Q29. The age difference of Deepak and Veer is 10 years. 5 years ago, the ratio of ages of Deepak and Veer was 7:5, then find out the ratio of ages of Deepak and Veer 5 years hence?

(a) 12:11

(b) 15:13

(c) 8:7

(d) 9:7

(e) 13:11

L1Difficulty 2

QTags Ages

QCreator Deepak Rohilla

Q30. There are 34 girls in the class and average percentage marks of girls is 84% and average percentage marks of boys is 82%. If total students in the class be 65, then find out the average percentage marks of the class? (approximately)

(a) 68%

(b) 80%

(c) 83%

(d) 89%

(e) 75%

L1Difficulty 2

QTags Percentage

QCreator Deepak Rohilla

Directions (31-35): Study the following table and answer the questions given below.

Number of students appeared (in thousand) and percentage of students qualified in an examination over the years.

|  |  |  |
| --- | --- | --- |
| Years | Number of students appeared (in thousands) | Percentage of qualified students  (in %) |
| 2011 | 5 | 40 |
| 2012 | 10 | 55 |
| 2013 | 22.5 | 35 |
| 2014 | 15 | 60 |
| 2015 | 27.5 | 50 |
| 2016 | 30 | 60 |
| 2017 | 15 | 80 |
| 2018 | 35 | 60 |

Q31. What was the ratio between the number of students appeared in 2011 and the number of students qualified in 2018?

(a) 21 : 2

(b) 2 : 21

(c) 5 : 21

(d) 21 : 5

(e) 3 : 4

L1Difficulty 2

QTags Table DI

QCreator Deepak Rohilla

Q32. In which of the following years number of students qualified was highest?

(a) 2018

(b) 2016

(c) 2015

(d) 2017

(e) 2013

L1Difficulty 2

QTags Table DI

QCreator Deepak Rohilla

Q33. What was the percentage drop in the number of students qualified in 2017 as compared to 2016?

(a) 50%

(b) 33.33%

(c) 37.25%

(d) 62.5%

(e) 25%

L1Difficulty 2

QTags Table DI

QCreator Deepak Rohilla

Q34. The number of students appeared in 2015 was approximately what percent more or less than the number of students disqualified in 2013?

(a) 78%

(b) 88%

(c) 84%

(d) 80%

(e) 94%

L1Difficulty 2

QTags Table DI

QCreator Deepak Rohilla

Q35. What is the difference between the disqualified students in 2016 and qualified students in 2012?

(a) 6000

(b) 13500

(c) 8500

(d) 5500

(e) 6500

L1Difficulty 2

QTags Table DI

QCreator Deepak Rohilla

Directions (36-40): Study the given information carefully and answer the given questions.

The data given below shows the production of three types of crops i.e. Wheat, Rice & Barley by a farm. The production of Rice is 150% more than that of Barley while production of Rice is 125 ton less than that of Wheat. Some crops are rotten due to rain. Ratio of rotten Wheat, Barley and Rice are in the ratio of 6 : 4 : 3. 16% of the wheat rotten which is 120 ton.

Q36. Production of Wheat is what percentage of that of Rice?

(a) 120%

(b) 150%

(c)

(d)

(e)

L1Difficulty 2

QTags Caselet

QCreator Deepak Rohilla

Q37. What is the ratio of production of Wheat, Barley & Rice?

(a) 6 : 5 : 2

(b) 5 : 4 : 3

(c) 6 : 3 : 2

(d) 6 : 2 : 5

(e) 5 : 2 : 4

L1Difficulty 2

QTags Caselet

QCreator Deepak Rohilla

Q38. What percentage of Rice crop is rotten?

(a) 12.8%

(b) 8%

(c) 9.6%

(d) 48%

(e) 10.67%

L1Difficulty 2

QTags Caselet

QCreator Deepak Rohilla

Q39. What is difference between the total production of crops and total rotten crops in farm?

(a) 1265 ton

(b) 1335 ton

(c) 1235 ton

(d) 1465 ton

(e) 1365 ton

L1Difficulty 2

QTags Caselet

QCreator Deepak Rohilla

Q40. Average production of crops is what percentage more than the average rotten crops?

(a) 425%

(b) 525%

(c) 625%

(d) 650%

(e) 600%

L1Difficulty 2

QTags Caselet

QCreator Deepak Rohilla

**Solutions**

S1. Ans.(b)

Sol.

I. x² – 9x + 18 = 0

x² – 6x – 3x + 18 = 0

x(x – 6) –3 (x -6) = 0

(x – 3) (x – 6)= 0

x= 3, 6

II. 5y² – 22y + 24 = 0

5y² – 10y – 12y + 24 = 0

5y(y- 2) –12 (y – 2) = 0

(y – 2) (5y – 12) = 0

∴ x > y

S2. Ans.(d)

Sol.

I. 6x² + 11x + 5 = 0

6x² + 6x + 5x + 5 = 0

6x (x + 1) + 5 (x + 1) = 0

(x+ 1) (6x +5)= 0

II. 2y² + 5y + 3 = 0

2y² + 2y + 3y + 3 = 0

2y(y+ 1) + 3 (y+ 1) = 0

(y+ 1) (2y + 3) = 0

S3. Ans.(e)

Sol.

I. x² + 10x + 24 = 0

x² +6x + 4x + 24 = 0

x(x + 6) +4 (x+ 6)= 0

(x + 4) (x + 6) = 0

x = –4, –6

II. y² –

∴ Relationship between x and y cannot be determined

S4. Ans.(e)

Sol.

I. 10x² +11x + 1= 0

10x² + 10x+ x+ 1 = 0

10x (x + 1) + 1 (x + 1) = 0

(x + 1) (10x + 1)= 0

II. 15y² + 8y + 1 = 0

15y² +5y + 3y + 1 = 0

5y (3y + 1)+ 1 (3y+ 1) = 0

(3y + 1) (5y + 1)= 0

∴ Relationship between x and y cannot be determined

S5. Ans.(c)

Sol.

I. 15x² – 11x + 2 = 0

15x² – 5x – 6x + 2 = 0

5x(3x – 1) – 2 (3x – 1)= 0

(3x – 1) (5x – 2)= 0

II. 10y² – 9y + 2 = 0

10y² – 5y – 4y + 2 = 0

5y(2y – 1) –2 (2y – 1) = 0

(2y – 1) (5y - 2)=0

∴ x ≤ y

S6. Ans.(b)

Sol. The given series is

+(13 × 1), +(13 × 2), +(13 × 4), +(13 × 8)

S7. Ans.(b)

Sol. The given series is

S8. Ans.(e)

Sol. The given series is

+(11 × 1), +(11 × 3), +(11 × 5), +(11 × 7), +(11 × 9)

So next no. is 302

S9. Ans.(c)

Sol. The given series is

–(9 × 9), –(9 × 8), –(9 × 7), –(9 × 6), –(9 × 5)

S10. Ans.(c)

Sol. The given series is

+(14)², + (13)², +(12)², +(11)², + (10)²

S11. Ans.(d)

Sol.

Required amount = 3 × 3850 + 5 × 3450

= 11550 + 17250

S12. Ans.(b)

Sol.

Average per gram price of Plutonium on all the four days together

Average per gram price of Rhodium on all the four days together

Required difference = 3625 – 3475 = 150

S13. Ans.(b)

Sol.

S14. Ans.(d)

Sol.

S15. Ans.(e)

Sol.

Required amount

= 2 × [3650 – 3450 + 3400 – 3500]

= 2 × [100]

= 200

S16. Ans.(a)

Sol.

M + 4C = 10 × 5 = 50

And 4C = 4 × 4 = 16

∴ Mother’s age = 50 – 16 = 34 years

S17. Ans.(c)

Sol.

Average income per day

S18. Ans.(d)

Sol.

Let fraction is

So ATQ

=

⇒ =

=

S19. Ans. (a)

Sol.

Let length and breadth of the rectangle be 100l cm and 100b cm respectively.

Required percentage =

= 12%

S20. Ans. (a)

Sol.

Efficiency of A =

Efficiency of B =

Efficiency of A and B together =

Left work which completed by B =

Required time =

=

S21. Ans.(b)

Sol.

S22. Ans.(c)

Sol.

S23. Ans.(b)

Sol.

12 × 4 + ? = 100 – 41

? = 100 – 89

? = 11

S24. Ans.(e)

Sol.

6? = 364 - 100

6? = 264

? = 44

S25. Ans.(e)

Sol.

S26. Ans. (b)

Sol.

Let speed of current be y kmph.

ATQ,

y=4 km/h

S27. Ans. (b)

Sol.

Let the length of platform = P meters

ATQ,

P=700 meters.

S28. Ans. (a)

Sol.

Let total capacity of tank = 120

Efficiency of pipe A = 5 unit

Efficiency of pipe B = 4 unit

Let total time taken to fill the tank =2t min.

ATQ,

So, required time =

S29. Ans. (d)

Sol.

Let present age of Deepak = D,

And present age of Veer = V.

ATQ,

D – V = 10 …..(1)

7V – 5D =10 …….(2)

From equ(1) and equ(2)

On solving both equation,

We get

V=30 years and

Required ratio =

S30. Ans. (c)

Sol.

Required percentage marks

S31. Ans. (c)

Sol.

Required ratio = 5000 : 21000 = 5 : 21

S32. Ans. (a)

Sol.

|  |  |
| --- | --- |
| Year | No. of qualified students |
| 2011 | 2000 |
| 2012 | 5500 |
| 2013 | 7875 |
| 2014 | 9000 |
| 2015 | 13750 |
| 2016 | 18000 |
| 2017 | 12000 |
| 2018 | 21000 |

S33. Ans. (b)

Sol.

Required percentage

S34. Ans. (b)

Sol.

Require percentage (approx.)

S35. Ans. (e)

Sol.

Required difference

S(36-40):

Let production of Barley be 2x ton.

So, production of Rice

And, production of Wheat

As, rotten wheat

So, production of Wheat, Rice & Barley are 750 ton, 625 ton & 250 ton respectively.

Rotten Barley

And, rotten Rice

S36. Ans (a)

Sol. Required %

S37. Ans (d)

Sol. Required ratio

S38. Ans (c)

Sol. Required %

S39. Ans (e)

Sol. Required difference

S40. Ans (b)

Sol. Required %