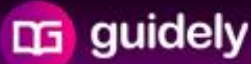


**RRB NTPC Memory Based Model Paper Based on Feb 05 Exam**



**Ultimate Xpress Video Course**

Exam based Course | Subject based Course

Live Classes + Mock Tests + Ebooks

**Enroll Now**

**Mathematics**

1. LCM of a and b is 102, HCF is 2, sum of two numbers is

72. Find the reciprocal of numbers.

- a) 6/17
- b) 7/18
- c) 9/10
- d) 5/6

Answer: A

$$a \times b = \text{LCM} \times \text{HCF}$$

$$= 102 \times 2$$

$$= 204$$

$$1/a + 1/b = (a + b) / (ab)$$

$$= 72/204$$

$$= 18/51$$

$$= 6/17$$

2. A man invests Rs. 6400 at a certain rate for 2 years compounded annually. He finds at the end of one year it amounts to Rs. 8100. Find the rate of interest.

- a) 6 (2/3) %
- b) 12 (1/2) %
- c) 16%
- d) 15%

Answer: B

$$8100 = 6400 \times (1 + R/100)^2$$

$$8100/6400 = (1 + R/100)^2$$

$$81/64 = (1 + R/100)^2$$

$$(9/8)^2 = (1 + R/100)^2$$

$$(9/8) = (1 + R/100)$$

$$9/8 - 1 = R/100$$

$$1/8 = R/100$$

[Click Here for High Quality Mock Test Series for RRB NTPC](#)

$$R = 100/8 = 12 (1/2) \%$$

Rate of interest is 12 (1/2) %.

3.  $\sin \theta - \operatorname{cosec} \theta = \sqrt{2}$ . Find the value of  $\sin^3 \theta - \operatorname{cosec}^3 \theta$ .

- a)  $\sqrt{2}$
- b)  $2\sqrt{2}$
- c)  $5\sqrt{2}$
- d)  $3\sqrt{2}$

Answer: C

$$\sin \theta - \operatorname{cosec} \theta = \sqrt{2}$$

$$x - 1/x = \sqrt{2}$$

On cubing both the sides

$$(x - 1/x)^3 = (\sqrt{2})^3$$

$$x^3 - 1/x^3 - 3(x - 1/x) = 2\sqrt{2}$$

$$x^3 - 1/x^3 - 3\sqrt{2} = 2\sqrt{2}$$

$$x^3 - 1/x^3 = 2\sqrt{2} + 3\sqrt{2}$$

$$x^3 - 1/x^3 = 5\sqrt{2}$$

$$\sin^3 \theta - \operatorname{cosec}^3 \theta = 5\sqrt{2}$$

4.  $\sec \theta - \operatorname{cosec} \theta = 0$ . Find the value of  $2\sin \theta - 3\cos \theta$ .

- a)  $1/\sqrt{3}$
- b)  $-1/\sqrt{3}$
- c)  $1/\sqrt{2}$
- d)  $-1/\sqrt{2}$

Answer: D

$$\sec \theta - \operatorname{cosec} \theta = 0$$

$$1/\cos \theta - 1/\sin \theta = 0$$

$$1/\cos \theta = 1/\sin \theta$$

$$\sin \theta / \cos \theta = 1$$

$$\tan \theta = 1$$

[Click Here for High Quality Mock Test Series for RRC Level 1](#)

## RRB NTPC Memory Based Model Paper Based on Feb 05 Exam

$$\theta = 45^\circ$$

$$2\sin \theta - 3\cos \theta$$

$$= 2 \times \sin 45^\circ - 3 \times \cos 45^\circ$$

$$= 2/\sqrt{2} - 3/\sqrt{2}$$

$$= -1/\sqrt{2}$$

5. Find the difference between median and mode of series

2, 2, 3, 3, 3, 3, 5, 7, 7, 9, 9.

a) 1

b) 2

c) 3

d) 4

Answer: A

2, 2, 3, 3, 3, 3, 5, 7, 7, 9, 9

$$\text{Median} = (3 + 5)/2 = 8/2 = 4$$

$$\text{Mode} = 3$$

$$\text{Median} - \text{Mode} = 4 - 3 = 1$$

6. Find the minimum value of  $11 \sin^2 \theta - 12 \cos^2 \theta$ .

a) 12

b) 11

c) 13

d) 14

Answer: B

$$\text{The minimum value of } 11 \sin^2 \theta - 12 \cos^2 \theta = 11$$

7. Find the difference between 6 digit largest and 6 digit smallest number.

a) 889999

b) 899990

c) 889999

d) 899999

Answer: D

$$\text{Largest Number} = 999999$$

$$\text{Smallest Number} = 100000$$

$$\text{Difference} = 999999 - 100000$$

$$= 899999$$

8. Find the sum of cube from 5 to 14.

a) 28796

b) 25403

c) 10925

d) 19625

Answer: C

$$5^3 + 6^3 + 7^3 + 8^3 + 9^3 + 10^3 + 11^3 + 12^3 + 13^3 + 14^3$$

$$\sum n^2 = [n \times (n + 1)/2]^2$$

$$[1 \text{ to } 14] - [1 \text{ to } 4]$$

$$= [14 \times (14 + 1)/2]^2 - [4 \times (4 + 1)/2]^2$$

$$= [14 \times 15/2]^2 - [4 \times 5/2]^2$$

$$= [7 \times 15]^2 - [2 \times 5]^2$$

$$= [105]^2 - [10]^2$$

$$= 11025 - 100$$

$$= 10925$$

9. Sum of two numbers is 40. Product of two numbers is 60. Find the reciprocal of sum.

a) 2/3

b) 3/2

c) 7/6

d) 5/6

Answer: A

Let the two numbers be x and y.

According to the question,

$$x + y = 40$$

$$xy = 60$$

$$\text{Reciprocal} = 1/x + 1/y$$

$$= (x + y)/xy$$

$$= 40/60$$

$$= 2/3$$

10. A and B can complete the work in 10 days. B can complete the work in 30 days. They work alternative day. Find the total time taken by them to complete the work if A starts first.

## RRB NTPC Memory Based Model Paper Based on Feb 05 Exam

- a) 8 days
- b) 10 days
- c) 12 days
- d) 14 days

Answer: B

(A + B)'s one day work =  $1/10$

B's one day work =  $1/30$

A's one day work =  $1/10 - 1/30$

=  $(3 - 1)/30$

=  $2/30$

=  $1/15$

Efficiency of A is 2 units

Efficiency of B is 1 units

3 units = 2 days

To complete 30 units of work A and B take 10 days.

11. Ratio of A and B is 7 : 5. Sum of A and B is 120. Find the difference of numbers.

- a) 15
- b) 10
- c) 20
- d) 25

Answer: C

According to the question,

$$7x + 5x = 120$$

$$12x = 120$$

$$x = 120/12$$

$$x = 10$$

Difference of numbers =  $7x - 5x = 2x = 2 \times 10 = 20$

12. A can complete the work in 25 days. B can complete the work in 75 days. Together can complete  $2/3$  work in how many days?

- a)  $15/4$  days
- b) 15 days
- c)  $75/4$  days

- d)  $12 (1/2)$  days

Answer: D

A's one day work =  $1/25$

B's one day work =  $1/75$

(A + B)'s one day work =  $1/25 + 1/75$

=  $(3 + 1)/75$

=  $4/75$

A and B complete the work in  $75/4$  days

$2/3$  of work completed by A and B =  $75/4 \times 2/3 = 25/4$  days =  $12 (1/2)$  days.

13. Ratio of curved surface area and total surface area of cylinder is  $5/9$ . Find the ratio of height and radius.

- a)  $4/9$
- b)  $5/4$
- c)  $5/9$
- d)  $4/5$

Answer: B

According to the question,

Curved Surface Area : Total Surface Area =  $5 : 9$

$$2\pi rh : (2\pi rh + 2\pi r^2) = 5 : 9$$

$$rh : (rh + r^2) = 5 : 9$$

$$rh : r(h + r) = 5 : 9$$

$$h : (h + r) = 5 : 9$$

$$9h = 5(h + r)$$

$$9h = 5h + 5r$$

$$9h - 5h = 5r$$

$$4h = 5r$$

$$h/r = 5/4$$

14. Find the value of  $\sin 225^\circ$ .

- a)  $-1/\sqrt{2}$
- b)  $1/\sqrt{2}$
- c)  $-1/\sqrt{3}$
- d)  $1/\sqrt{3}$

Answer: A

**RRB NTPC Memory Based Model Paper Based on Feb 05 Exam**

$$\sin 225^\circ$$

$$= \sin (180^\circ + 45^\circ)$$

$$= -\sin 45^\circ$$

$$= -1/\sqrt{2}$$

15. Ratio of A and B is 9 : 11. If 6 is added to number the ratio is 6 : 7. Find the largest number.

a) 20

b) 18

c) 22

d) 25

Answer: C

Let the two numbers be p and q,

According to the question,

$$p : q = 9 : 11$$

$$(p + 6) : (q + 6) = 6 : 7$$

$$(9x + 6) : (11x + 6) = 6 : 7$$

$$7 \times (9x + 6) = 6 \times (11x + 6)$$

$$63x + 42 = 66x + 36$$

$$42 - 36 = 66x - 63x$$

$$6 = 3x$$

$$x = 6/3$$

$$x = 2$$

$$\text{Largest number} = 11x = 11 \times 2 = 22$$

16. A shopkeeper offers 25% discount on bag and then again offers 10% discount. Find the net discount.

a) 37.5%

b) 32.5%

c) 18%

d) 38%

Answer: B

$$\text{Net Discount} = 25 + 10 - (25 \times 10)/100 = 35 - 2.5 = 32.5\%$$

17.  $11 = (11x)/(1 - x)$ . Find the  $(2x)^2$ .

a) 1

b) 2

c) 3

d) 4

Answer: A

$$11 = (11x)/(1 - x)$$

$$11(1 - x) = 11x$$

$$11 - 11x = 11x$$

$$11 = 11x + 11x$$

$$11 = 22x$$

$$11/22 = x$$

$$x = 1/2$$

$$(2x)^2 = (2 \times 1/2)^2 = (1)^2 = 1$$

18.  $x = 7$  and  $y = 5$ . Find the value of  $(x^2 - y^2)/(x^3 + y^3)$ .

a) 2/19

b) 7/18

c) 3/19

d) 2/39

Answer: D

$$(x^2 - y^2)/(x^3 + y^3)$$

$$= (x - y) \times (x + y) / (x + y) \times (x^2 - xy + y^2)$$

$$= (x - y) / (x^2 - xy + y^2)$$

$$= (7 - 5) / (7^2 - 7 \times 5 + 5^2)$$

$$= 2 / (49 - 35 + 25)$$

$$= 2 / (49 - 10)$$

$$= 2/39$$

19. Length is 20 cm, breadth is 25 cm, height is 35 cm.

Find the area of four walls.

a) 3150 cm<sup>2</sup>

b) 3000 cm<sup>2</sup>

c) 4250 cm<sup>2</sup>

d) 5000 cm<sup>2</sup>

Answer: A

$$\text{Area of four walls} = 2 \times h \times (l + b)$$

$$= 2 \times 35 \times (20 + 25)$$

$$= 70 \times 45$$

**RRB NTPC Memory Based Model Paper Based on Feb 05 Exam**

= 3150 cm<sup>2</sup>

20. A can complete work in 15 days, B can complete a work in 20 days and C can complete the work in 5/2 days.

How many days together take to complete the work?

- a) 80/31 days
- b) 79/31 days
- c) 60/31 days
- d) 68/31 days

Answer: C

A's one day work = 1/15

B's one day work = 1/20

C's one day work = 2/5

$$= 1/15 + 1/20 + 2/5$$

$$= (4 + 3 + 24)/60$$

$$= 31/60$$

A, B and C take 60/31 days to complete.

21. A quadratic equation  $6x^2 - 5x + 1 = 0$  has  $\alpha$  and  $\beta$ .

Find the value of  $\alpha^2 + \beta^2$ .

- a) 5/12
- b) 13/36
- c) 12/19
- d) 1/36

Answer: B

$$6x^2 - 5x + 1 = 0$$

$$6x^2 - 2x - 3x + 1 = 0$$

$$2x(3x - 1) - 1(3x - 1) = 0$$

$$(2x - 1)(3x - 1) = 0$$

$$x = 1/2, 1/3$$

$$\alpha = 1/2 \text{ and } \beta = 1/3$$

$$\alpha^2 + \beta^2 = (1/2)^2 + (1/3)^2$$

$$\alpha^2 + \beta^2 = 1/4 + 1/9$$

$$= 13/36$$

22. Area of isosceles right angle triangle is 81 cm<sup>2</sup>. Find the hypotenuse.

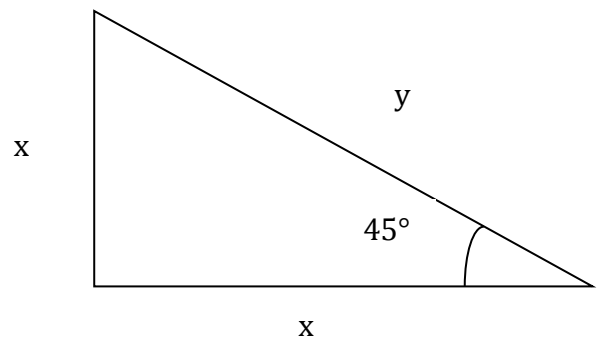
a) 9.5 cm

b) 27 cm

c) 18 cm

d) 9 cm

Answer: C



Let the hypotenuse be y,

$$y = x\sqrt{2}$$

Area of Isosceles Triangle =  $1/2 \times x^2$

$$81 = 1/2 \times x^2$$

$$81 \times 2 = x^2$$

$$x = 9\sqrt{2}$$

$$y = 9\sqrt{2} \times \sqrt{2} = 9 \times 2 = 18 \text{ cm}$$

23. Ratio of age of A and B is 3 : 5. After 9 year ratio of their age is 5 : 9. Find present age of A.

- a) 54 year
- b) 90 year
- c) 36 year
- d) 28 year

Answer: A

According to the question,

$$A : B = 3 : 5$$

After 9 years,

$$(A + 9) : (B + 9) = 5 : 9$$

$$(3x + 9) : (5x + 9) = 5 : 9$$

$$9 \times (3x + 9) = 5 \times (5x + 9)$$

$$27x + 81 = 25x + 45$$

$$27x - 25x = 81 - 45$$

## RRB NTPC Memory Based Model Paper Based on Feb 05 Exam

$$2x = 36$$

$$x = 36/2$$

$$x = 18$$

$$A = 3x = 3 \times 18 = 54 \text{ year}$$

24. Find LCM of  $1/3, 7/6, 5/9, 8/18, 4/27$ .

a)  $60/13$

b)  $90/7$

c)  $140/3$

d)  $70/3$

Answer: C

LCM of  $1/3, 7/6, 5/9, 8/18, 4/27$

= LCM of  $1/3, 7/6, 5/9, 4/9, 4/27$

= LCM (1, 7, 5, 4, 4) / HCF (3, 6, 9, 9, 27)

=  $(7 \times 5 \times 4)/3$

=  $140/3$

25. Sum of internal angle of polygon is thrice the sum of external angle. Find the side.

a) 5

b) 6

c) 7

d) 8

Answer: D

According to the question,

$$I = 3 \times E$$

$$(2n - 4) \times 90^\circ = 3 \times 360^\circ$$

$$(2n - 4) = 12$$

$$2n = 12 + 4$$

$$2n = 16$$

$$n = 16/2$$

$$n = 8$$

26. Perimeter of an equilateral triangle is 36 cm. Find the area.

a)  $25\sqrt{3} \text{ cm}^2$

b)  $36\sqrt{3} \text{ cm}^2$

c)  $26\sqrt{3} \text{ cm}^2$

d)  $30\sqrt{3} \text{ cm}^2$

Answer: B

Perimeter of equilateral triangle = 36 cm

$$3a = 36$$

$$a = 36/3$$

$$a = 12 \text{ cm}$$

Area of equilateral triangle =  $\sqrt{3}a^2/4$

$$= \sqrt{3} \times 12^2/4$$

$$= 36\sqrt{3} \text{ cm}^2$$

27. Area of a square is  $289 \text{ cm}^2$ . Find its diagonal.

a) 8.5 cm

b) 9 cm

c)  $17\sqrt{2} \text{ cm}$

d) 17 cm

Answer: C

Area of square =  $289 \text{ cm}^2$

$$a^2 = 289$$

$$a = 17 \text{ cm}$$

Diagonal of square =  $a\sqrt{2}$

$$d = 17\sqrt{2} \text{ cm}$$

28. Find the compound interest on Rs. 1200 at 12% per annum compounded quarterly for 6 months.

a) Rs. 63.08

b) Rs. 53.08

c) Rs. 73.08

d) Rs. 70.08

Answer: C

P = Rs. 1200/-, Rate = 3%, Time =  $6/12 = \frac{1}{2} = 4/2 = 2$  years

$$CI = 1200 \times (1 + 3/100)^2 - 1200$$

$$= 1200 \times (103/100)^2 - 1200$$

$$= 1200 \times [10609/10000 - 1]$$

$$= 1200 \times (1.0609 - 1)$$

**RRB NTPC Memory Based Model Paper Based on Feb 05 Exam**

=  $1200 \times 0.0609$

= 73.08/-

29. 35% of first number is equal to 30% of second number. Find the ratio of numbers.

- a) 6/5
- b) 6/7
- c) 5/7
- d) 5/6

Answer: B

Let the numbers be x and y,

According to the questions,

$35\% \text{ of } x = 30\% \text{ of } y$

$35x = 30y$

$x/y = 6/7$

30. A person covers half of the distance with the speed of 25 kmph and rest of the distance with a speed of 30 kmph. Total time taken to cover the whole distance is 11 hours.

Find the total distance (in m).

- a) 100 m
- b) 120 m
- c) 150 m
- d) 300 m

Answer: D

According to the question,

$D/2 = \{(25 \times 30)/55\} \times 11$

$D/2 = 750/5$

$D/2 = 150$

$D = 300 \text{ m}$

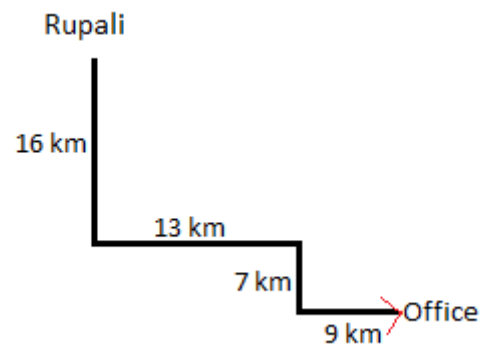
**Logical Reasoning**

1. Rupali is standing facing south. She walks 16km straight, then turns left and walks another 13km and turns right and walks 7km. Finally turns left and walks 9km to reach her office. Which direction is she facing now?

[Click Here for High Quality Mock Test Series for RRB NTPC](#)

- a) West
- b) North
- c) East
- d) South

Answer: C



2. HAPPY is related to JOYFUL in the same way as REGRET is related to

- a) VAIN
- b) RETRIEVE
- c) GUILT
- d) RECOUP

Answer: C

Words are synonyms of each other.

3. Lucifer walks 13 km towards south, then he walks 10 km towards north. Finally he walks 4 km towards east.

Find the distance between his starting and final point.

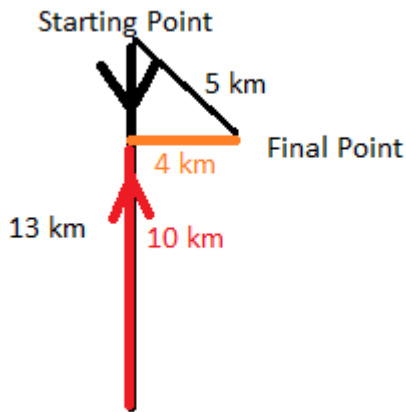
- a) 7km
- b) 5km
- c) 10km

[Click Here for High Quality Mock Test Series for RRC Level 1](#)

**RRB NTPC Memory Based Model Paper Based on Feb 05 Exam**

d) 9km

Answer: B



The distance between his starting and final point =

$$\sqrt{3^2 + 4^2} \text{ km}$$

$$= \sqrt{9 + 16} \text{ km}$$

$$= \sqrt{25} \text{ km}$$

$$= 5 \text{ km}$$

4. A series is given with one term missing. Select the correct alternative from the given ones that will complete the series.

L, P, U, ?, H, P

- a) Z
- b) Y
- c) A
- d) B

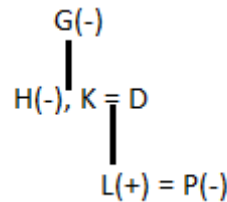
Answer: C

$$L + 4 = P; P + 5 = U; U + 6 = A; A + 7 = H; H + 8 = P$$

5. G is mother of H who is sister of K. L is son of D and husband of P. If D is married to K, then how is G related to L?

- a) Aunt
- b) Grandmother
- c) Mother
- d) Sister

Answer: B



G is grandmother of L.

6. Which of the following signs need to be interchanged to make the given equation correct?

$$3 \div 25 \times 5 + 9 - 7 = 17$$

- a) + and -
- b)  $\div$  and  $\times$
- c) + and  $\div$
- d) - and  $\div$

Answer: B

$$3 \div 25 \times 5 + 9 - 7 = 17$$

b)  $\div$  and  $\times$

$$\Rightarrow 3 \times 25 \div 5 + 9 - 7 = 17$$

$$\Rightarrow 15 + 9 - 7 = 17$$

$$\Rightarrow 17 = 17$$



## RRB NTPC Memory Based Model Paper Based on Feb 05 Exam

7. Based on the analogy given, find the missing pair from the given options.

Assam : Dispur

- a) Gujarat : Ahmedabad
- b) Rajasthan : Udaipur
- c) Himachal Pradesh : Shimla
- d) Goa : Pakyong

Answer: C

State : Capital

8. If 'may august march' is written as 'hig lwm cao' and 'december july march' as 'sow lwm skz' and 'may april december' as 'kqx hig sow', then 'cao lwm' is the code for \_\_\_\_\_.

- a) december may
- b) april july
- c) july may
- d) march august

Answer: D

Word	Code
May	Hig
July	Skz
August	Cao
December	sow
March	Lwm

April	kqx
-------	-----

9. If + means -, - means ×, × means ÷ and ÷ means +, then then the value of the given equation  $10 - 15 \times 5 + 6 \div 3$  is

- a) 9
- b) 3
- c) 27
- d) 18

Answer: C

+	-	×	÷
-	×	÷	+

$$10 - 15 \times 5 + 6 \div 3 = ?$$

After replacing symbols:

$$10 \times 15 \div 5 - 6 + 3 = ?$$

$$= 30 - 6 + 3$$

$$= 33 - 6$$

$$= 27$$

10. Find the missing number in the diagram given below.

2	5	8
5	7	?
129	368	280

- a) 4
- b) 6
- c) 16
- d) 36

## RRB NTPC Memory Based Model Paper Based on Feb 05 Exam

Answer: B

$$1^{\text{st}} \text{ column: } 2^2 + 5^3 = 129$$

$$2^{\text{nd}} \text{ column: } 5^2 + 7^3 = 129$$

Similarly,

$$3^{\text{rd}} \text{ column: } 8^2 + ?^3 = 280$$

$$\Rightarrow 64 + ?^3 = 280$$

$$\Rightarrow ?^3 = 280 - 64$$

$$\Rightarrow ?^3 = 216$$

$$\Rightarrow ? = 6$$

11. Statement and their conclusions are given below.

**Statement:**

Death keeps no calendar.

**Conclusion:**

- I. Man must die one day.
- II. Death can come at any time.

Choose the correct option.

- a) Only I follows.
- b) Only II follows.
- c) Both I and II follows.
- d) Neither I nor II follows.

Answer: C

12. A statement followed by three assumptions is given below.

**Statement:**

“Use White cold cream for fair complexion”. – An advertisement.

**Assumptions:**

- I. People like to use cream for fair complexion.
- II. People are easily fooled.
- III. People respond to advertisements.

Choose the correct alternative.

- a) Only I is implicit.
- b) Only I and II are implicit.
- c) Only I and III are implicit.
- d) None of these

Answer: C

13. Based on the analogy given, find the missing pair from the given options.

$$6 : 37$$

- a) 9 : 153
- b) 4 : 64
- c) 3 : 34
- d) 11 : 88

Answer: C

6 : 37 are co-prime numbers.

Similarly,

3 : 34 are co-prime numbers.

## RRB NTPC Memory Based Model Paper Based on Feb 05 Exam

14. In the following question, select the missing number from the given series.

22, 105, 415, 1240, 2475, ?

- a) 3670
- b) 2470
- c) 3895
- d) 2570

Answer: B

$$(22 \times 5) - 5 = 105$$

$$(105 \times 4) - 5 = 415$$

$$(415 \times 3) - 5 = 1240$$

$$(1240 \times 2) - 5 = 2475$$

$$(2475 \times 1) - 5 = \mathbf{2470}$$

15. A statement followed by two assumptions is given below.

**Statement:**

Unemployment allowance should be given to all unemployed Indian youth above 18 years of age.

**Assumptions:**

- I. There are unemployed youth in India who need monetary support.
- II. The government has sufficient funds to provide allowance to all unemployed youth.

Choose the correct alternative.

- a) Only I is implicit.
- b) Only II is implicit.

- c) Both I and II are implicit.
- d) Neither I nor II is implicit.

Answer: A

16. A series is given with one term missing. Select the correct alternative from the given ones that will complete the series.

LMK, FGE, ZAY, TUS, ?

- a) BMQ
- b) SRB
- c) LZD
- d) NOM

Answer: D

$$L - 6 = F; F - 6 = Z; Z - 6 = T; T - 6 = N$$

$$M - 6 = G; G - 6 = A; A - 6 = U; U - 6 = O$$

$$K - 6 = E; E - 6 = Y; Y - 6 = S; S - 6 = M$$

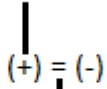
17. When Abhimanyu saw Mitu, he recalled, "She is the daughter of his father's mother's only son's wife". How is Mitu related to Abhimanyu?

- a) Aunt
- b) Mother
- c) Sister
- d) Niece

Answer: C

**RRB NTPC Memory Based Model Paper Based on Feb 05 Exam**

Mother



Abhimanyu(+), Mitu (-)

Mitu is sister of Abhimanyu.

18. Based on the analogy given, find the missing pair from the given options.

CXD : XCW

a) GDC : XWT

b) LKO : OPO

c) MAN : NZM

d) CRT : XIH

Answer: C

Letters are replaced by its reverse letter in the pair.

19. In the following question, select the missing number from the given series.

41, 64, 110, 202, 386, ?

a) 754

b) 876

c) 972

d) 927

Answer: A

$$41 + (23 \times 1) = 64$$

$$64 + (23 \times 2) = 110$$

$$110 + (23 \times 4) = 202$$

$$202 + (23 \times 8) = 386$$

$$386 + (23 \times 16) = 754$$

20. In this question, two statements are given followed by two conclusions. Choose the conclusion(s) which best fit(s) logically.

**Statements:**

I. Some matter are elements

II. Some matter are not molecules

**Conclusions:**

I. Some elements are molecules

II. Some elements are not molecules

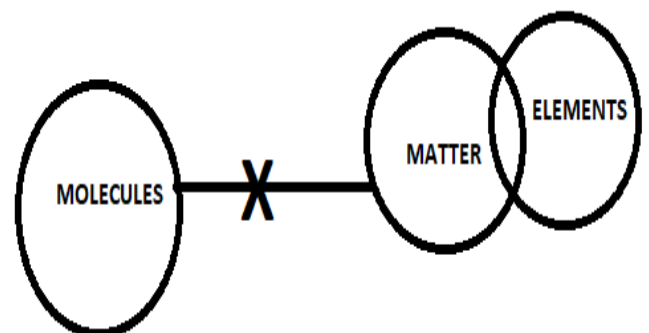
a) Only conclusion II follows

b) Only conclusion I follows

c) Neither conclusion I nor II follows

d) Either conclusion I or II follows

Answer: D



I. Some elements are molecules - False

II. Some elements are not molecules - False

Either conclusion I or II follows.

**RRB NTPC Memory Based Model Paper Based on Feb 05 Exam**

21. A statement followed by two arguments is given below.

**Statement:**

Is buying things on instalments profitable to the customer?

**Arguments:**

- I. Yes. He has to pay less.
  - II. No. Paying instalments upsets the family budget.
- a) Only argument I is strong.
  - b) Only argument II is strong.
  - c) Both I and II are strong.
  - d) Neither I nor II is strong.

Answer: D

22. If 'SUGGESTION' is written as '!@%%\*!(&^#' and 'SAMPLE' as '\$></'\*, then how is 'GESTATION' written in that code?

- a) %\*!\$(&^#
- b) %\*!\$(&^#
- c) %\*!(\$&^#
- d) %\*!(\$&^#

Answer: D

S	U	G	G	E	S	T	I	O	N
!	@	%	%	*	!	(	&	^	#

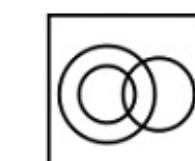
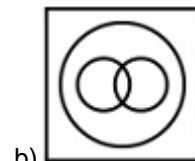
S	A	M	P	L	E
!	\$	>	<	/	*

Similarly,

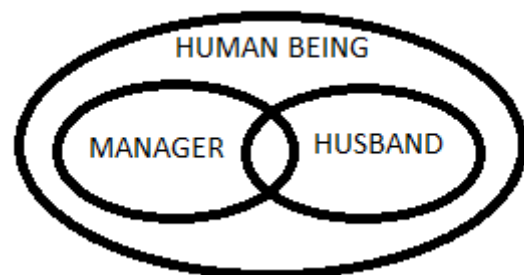
G	E	S	T	A	T	I	O	N
%	*	!	(	\$	(	&	^	#

23. Identify the diagram that best represents the relationship among the given classes.

Manager, Husband, Human Being



Answer: B



**RRB NTPC Memory Based Model Paper Based on Feb 05 Exam**

24. Deepa runs faster than Piku. Priyanka runs faster than Greta who runs slower than Aakash. Priyanka is not the fastest runner and Greta runs faster than only two persons, then find the person who runs the fastest.

- a) Akash
- b) Deepa
- c) Piku
- d) Cannot be determined

Answer: A

Akash > Priyanka > Greta > Deepa > Piku

25. Rearrange the jumbled letters to make a meaningful word and then select the one which is different.

- a) IRAGOVAD
- b) LUKBA
- c) RANADAM
- d) VIREAK

Answer: B

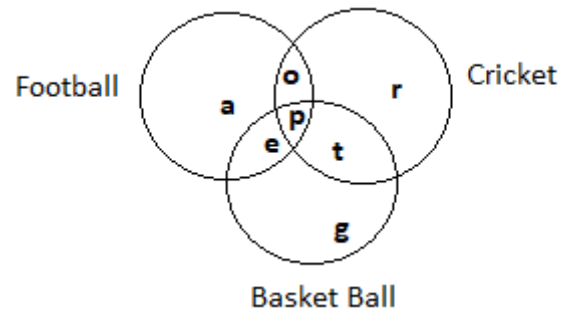
- a) IRAGOVAD - GODAVARI
- b) LUKBA - KABUL
- c) RANADAM - NARMADA
- d) VIREAK - KAVERI

Kabul river is in Pakistan, while the other rivers are in India.

26. The figure given below consists of three intersecting circles which represent sets of students who play Football,

[Click Here for High Quality Mock Test Series for RRB NTPC](#)

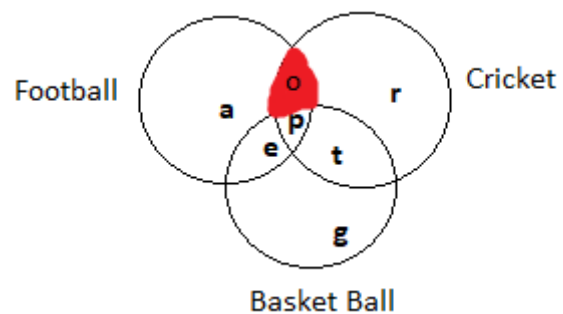
Cricket and Basket Ball. Each region in the figure is represented by a small letter.



Which letter represents students who play both football and cricket but not basket ball?

- a) e
- b) o
- c) p
- d) t

Answer: B



27. Which one is different from the rest?

- a) 2128
- b) 48
- c) 3840
- d) 100

Answer: A

[Click Here for High Quality Mock Test Series for RRC Level 1](#)

**RRB NTPC Memory Based Model Paper Based on Feb 05 Exam**

a)  $2128 \rightarrow 13^3 - 13^2 = 2028 \neq 2128$

b)  $48 \rightarrow 4^3 - 4^2$

c)  $3840 \rightarrow 16^3 - 16^2$

d)  $100 \rightarrow 5^3 - 5^2$

28. In this question, two statements are given followed by two conclusions. Choose the conclusion(s) which best fit(s) logically.

**Statements:**

- I. Some plants are trees
- II. Some leaves are trees

**Conclusions:**

- I. Some leaves are plant
- II. Some plant are not tree
- a) Only conclusion II follows
- b) Only conclusion I follows
- c) Neither conclusion I nor II follows
- d) Both conclusions I and II follow

Answer: C



- I. Some leaves are plant - False
- II. Some plant are not tree - False

29. Four words are given below among which three are similar in some respects. Find out the odd one which is different from the rest.

- a) Onion
- b) Banana
- c) Carrot
- d) Potato

Answer: B

Banana grows on a tree.

Carrot, Potato and Onion grow underground.

30. In a certain language, MONEY is coded as 68, is RACE coded as 85, then FUNGI will be coded as?

- a) 78
- b) 85
- c) 83
- d) 79

Answer: C

$MONEY \leftrightarrow NLMVB = 14 + 12 + 13 + 22 + 2 = 63$

And  $63 + 5$  (Number of letters in the word) = 68

$RACE \leftrightarrow IZXV = 9 + 26 + 24 + 22 = 81$

And  $81 + 4$  (Number of letters in the word) = 85

Similarly,

$FUNGI \leftrightarrow UFMTR = 21 + 6 + 13 + 20 + 18 = 78$

And  $78 + 5$  (Number of letters in the word) = **83**

**General Awareness**

[Click Here for High Quality Mock Test Series for RRB NTPC](#)

[Click Here for High Quality Mock Test Series for RRC Level 1](#)

## RRB NTPC Memory Based Model Paper Based on Feb 05 Exam

1) The Self-Respect Movement was started by whom?

- a) Vinobha Bhave
- b) Aurobindo Ghosh
- c) Sardar Patel
- d) S. Ramanathan

Answer: d)

The Self-Respect Movement is a South Asian movement with the aim of achieving a society where backward castes have equal human rights, and encouraging backward castes to have self-respect. It was founded in 1925 by S. Ramanathan.

2) Which of the following factors is/are necessary for photosynthesis?

- a) water
- b) carbon dioxide
- c) sunlight
- d) All of the above

Answer: d)

Photosynthesis is the process by which green plants and certain other organisms transform light energy into chemical energy. There are four factors which are necessary for the process of photosynthesis, water, carbon dioxide, sunlight, and chlorophyll. Chlorophyll pigments are present in the plant, carbon dioxide is obtained from the atmosphere, water is absorbed from the soil by the roots.

3) Jagatpita Brahma Mandir, is located in which city of Rajasthan?

- a) Udaipur
- b) Bikaner
- c) Pushkar
- d) Alwar

Answer: c)

Jagatpita Brahma Mandir is a Hindu temple situated at Pushkar in the Indian state of Rajasthan, close to the

sacred Pushkar Lake. The temple is one of very few existing temples dedicated to the Hindu creator-god Brahma in India and remains the most prominent among them.

4) Who is known as the 'Missile Man of India'?

- a) A.P.J Abdul Kalam
- b) Har Gobind Khorana
- c) Vikram Sarabhai
- d) Jagadish Chandra Bose

Answer: a)

A.P.J Abdul Kalam was an Indian aerospace scientist and politician who served as the 11th President of India from 2002 to 2007. He spent four decades as a scientist and science administrator, mainly at the Defence Research and Development Organisation (DRDO) and Indian Space Research Organisation (ISRO). He came to be known as the Missile Man of India.

5) Which film won the Best Film award at the Dadasaheb Phalke International Film Festival 2020?

- a) Chhapaak
- b) Super30
- c) Andhadhun
- d) Gully Boy

Answer: b)

Hrithik Roshan won the Best Actor trophy for his performance in Super 30 at Dada Saheb Phalke Foundation Awards 2020 and the Best Film award was given to Super30.

6) Which among the following articles of the Indian Constitution provides for State emergency and suspends constitutional arrangement in a state?

- a) Article-356
- b) Article-352
- c) Article- 389



## RRB NTPC Memory Based Model Paper Based on Feb 05 Exam

d) Article-392

Answer: a)

Article 356 of the Constitution of India empowers the President to withdraw from the Union the executive and legislative powers of any state "if he is satisfied that a situation has arisen in which the government of the state cannot be carried on in accordance with the provisions of the Constitution".

7) Who is the current CEO of Alibaba Group?

- a) Tim Cook
- b) Elon Musk
- c) Charles Wong
- d) Daniel Zhang

Answer: d)

Daniel Zhang is a Chinese technology executive. He is currently the CEO of Alibaba Group. Before becoming the CEO, Zhang was best known for his roles as CEO of Taobao and president of Tmall.

8) Bharat Bhavan was inaugurated by then Prime Minister of India, Mrs. Indira Gandhi on 13th February 1982 in\_\_\_\_\_.

- a) Lucknow
- b) Bhopal
- c) New-Delhi
- d) Surat

Answer: b)

Bharat Bhavan is an autonomous multi-arts complex and museum in Bhopal, India, established and funded by the Government of Madhya Pradesh. It was inaugurated by Mrs. Indira Gandhi on 13th February 1982.

9) Name the cell organelle that have their own DNA and Ribosomes.

- a) Plastids
- b) Mitochondria

c) Endoplasmic Reticulum

d) Both a and b

Answer: d)

Mitochondria and Plastids like Chloroplast have their own DNA and ribosomes because of which they are able to synthesize some of their own proteins and replicate independent of the nucleus.

10) United Nations Development Programme (UNDP), is headquartered in\_\_\_\_\_.

- a) London, England
- b) New York, United States
- c) Vienna, Austria
- d) Kathmandu, Nepal

Answer: b)

The United Nations Development Programme (UNDP) is the United Nations global development network established on 22 November 1965. It works with nations on their own solutions to global and national development challenges. It is headquartered in New York, United States.

11) Which city will host the Indian Science Congress in 2021?

- a) Guwahati
- b) Pune
- c) Bengaluru
- d) Indore

Answer: b)

Indian Science Congress Association (ISCA) awarded Symbiosis International University (SIU), located in Pune to host the 108th edition of the Science Congress, which was scheduled to be held between January 3 and 7, 2021.

12) Plassey, is a village located in Nadia District of which state?

- a) Gujarat

## RRB NTPC Memory Based Model Paper Based on Feb 05 Exam

- b) Uttar Pradesh
- c) Haryana
- d) West-Bengal

Answer: d)

Plassey, is a village on the east bank of Bhagirathi River, located in the Nadia District of West Bengal, India. The historic Battle of Plassey took place in this village.

13) What is the length of K2 Mountain? (in metres)

- a) 8611m
- b) 7677m
- c) 9122m
- d) 6566m

Answer: a)

K2, at 8,611 metres above sea level, is the second highest mountain in the world, after Mount Everest at 8,848 metres. It is the highest point of the Karakoram mountain range and the highest point in both Pakistan and Xinjiang.

14) Mudumalai National Park is located in\_\_\_\_\_.

- a) Andhra Pradesh
- b) Tamil Nadu
- c) Odisha
- d) Kerala

Answer: b)

The Mudumalai National Park lies on the northwestern side of the Nilgiri Hills in Coimbatore city in Tamil Nadu. It shares its boundaries with the states of Karnataka and Kerala. The protected area is home to several endangered and vulnerable species including Indian elephant, Bengal tiger, gaur and Indian leopard.

15) Congress Party split into Garam Dal and Naram Dal in which year?

- a) 1907
- b) 1901
- c) 1905

d) 1911

Answer: a)

The Indian National Congress was formed in 1885 and in 1907 it split into two factions, extremists - Garam Dal (hot faction) led by Tilak and moderates Naram Dal (soft faction) led by Gokhale. They were termed so because of their attitude towards the British rule.

16) Which is the state bird of Andaman and Nicobar Islands?

- a) Sarus crane
- b) Himalayan monal
- c) Wood Pigeon
- d) White-breasted kingfisher

Answer: c)

The Andaman wood pigeon is a species of bird. It is endemic to the Andaman and Nicobar Islands. Thus, it is the state bird of Andaman and Nicobar Islands.

17) Department of Atomic Energy in India is headed by whom?

- a) Rajnath Singh
- b) Narendra Modi
- c) D. V. Sadananda Gowda
- d) Harsh Vardhan

Answer: b)

The Department of Atomic Energy (DAE) is a department directly under the Prime Minister of India with headquarters in Mumbai, Maharashtra, India. It was established in 1954 and has been engaged in the development of nuclear power technology, applications of radiation technologies in the fields of agriculture, medicine, industry and basic research.

18) National Council of Educational Research and Training (NCERT), was established in which year?

- a) 1966

## RRB NTPC Memory Based Model Paper Based on Feb 05 Exam

- b) 1963
- c) 1961
- d) 1969

Answer: c)

The National Council of Educational Research and Training is an autonomous organisation of the Government of India which was established in 1961 as a literary, scientific and charitable Society under the Societies Registration Act. Its headquarters are located at Sri Aurobindo Marg in New Delhi.

19) How many pairs of ribs are present in human body?

- a) 12 pairs
- b) 10 pairs
- c) 18 pairs
- d) 16 pairs

Answer: a)

Ribs are the long curved bones which form the rib cage, part of the axial skeleton. Human ribs are flat bones that form part of the rib cage to help protect internal organs. Humans usually have 24 ribs, in 12 pairs.

20) Who among the following was the last and the only Indian governor-general?

- a) Lord Linlithgow
- b) Lord Irwin
- c) Aurobindo Ghosh
- d) C. Rajagopalachari

Answer: d)

Upon independence in August 1947, the title of viceroy was abolished. The representative of the British Sovereign became known once again as the governor-general. C. Rajagopalachari became the only Indian governor-general.

21) Which site of Indus valley civilization is located in Gujarat?

- a) Dholavira
- b) Banawali
- c) Harappa
- d) Kalibangan

Answer: a)

Dholavira is an archaeological site at Kutch District, in the state of Gujarat in western India. The site contains ruins of an ancient Indus Valley Civilization/Harappan city. It is one of the five largest Harappan sites and most prominent archaeological sites in India belonging to the Indus Valley Civilization.

22) The Harshacharita, biography of Indian emperor Harshavardhana is written by\_\_\_\_\_.

- a) Kalidasa
- b) Chand Bardai
- c) Bana Bhatt
- d) Bhavabhuti

Answer: c)

The Harshacharita, is the biography of Indian emperor Harsha by Banabhatta, who was a Sanskrit writer of seventh-century CE India. He was the Asthana Kavi, meaning Court Poet, of Harsha.

23) Son River originates near \_\_\_\_\_hills in Annupur district of Madhya Pradesh.

- a) Amarkantak
- b) Pachmarhi
- c) Khandala
- d) Matheran

Answer: a)

Son River is a perennial river located in central India. It originates near Amarkantak Hill in Annupur district of Madhya Pradesh and finally merges with the Ganges river near Patna in Bihar. It is the southern and second-largest tributary of the Ganges after Yamuna River.

## RRB NTPC Memory Based Model Paper Based on Feb 05 Exam

24) What is the term used for the first hour of every sitting in the Parliament?

- a) Zero Hour
- b) Question Hour
- c) Initial Hour
- d) Business Hour

Answer: b)

The First hour of every sitting is called Question Hour. During Question Hour, they may ask questions of ministers on different aspects of administration and government policy in the national and international spheres. Questions are of three types—Starred, Unstarred and Short Notice.

25) Who won the ATP Mexican Open Men's Singles title 2020?

- a) Alexander Zverev
- b) Bruno Soares
- c) Rafael Nadal
- d) Juan Martin del Potro

Answer: c)

The Mexican Open is a joint professional tennis tournament played on outdoor hard courts. Rafael Nadal secured his 85th ATP Tour title by winning Men's Singles title of Mexican Open 2020.

26) Who was the Governor-General of India during Dandi March?

- a) Lord Minto
- b) Lord Irwin
- c) Lord Canning
- d) Lord Chelmsford

Answer: b)

On April 3, 1926 Lord Irwin was appointed 30th Viceroy and Governor-General of India until 1934. Dandi march was started on 12 March 1930 during his governor-generalship.

27) Who was honoured with Swami Vivekananda Karmayogi Award 2020?

- a) Jadav Payeng
- b) B. Lalhengliana
- c) Ram Bahadur Rai
- d) Faggan Singh Kulaste

Answer: a)

Forest Man of India Jadav Payeng was awarded Swami Vivekananda Karmayogi Award 2020 in New Delhi. He was awarded the 6th Karmayogi Award for his consistent efforts in creating a real man-made forest through massive reforestation. The award consists of a trophy, a recitation and a reward of Rs 1 lakh.

28) P.C. Mahalanobis Model is related to which Five-year plan?

- a) 2<sup>nd</sup> Five-year plan
- b) 6<sup>th</sup> Five-year plan
- c) 8<sup>th</sup> Five-year plan
- d) 1<sup>st</sup> Five-year plan

Answer: a)

Mahalanobis became the key economist of India's Second Five Year Plan, becoming subject to much of India's most dramatic economic debates. The essence of the model is a shift in the pattern of industrial investment towards building up a domestic consumption goods sector.

29) The waves which travel at a speed greater than the speed of sound are\_\_\_\_\_.

- a) Ultrasonic waves
- b) Supersonic waves
- c) Microwaves
- d) Ultraviolet waves

Answer: b)

Supersonic is used for objects which travel at a speed greater than the speed of sound. These objects create

## RRB NTPC Memory Based Model Paper Based on Feb 05 Exam

sonic boom generating enormous amounts of energy sounding like an explosion.

30) Agra fort was built by which Mughal Emperor?

- a) Babur
- b) Humayun
- c) Akbar
- d) Jahangir

Answer: c)

The construction of the Agra fort was started around 1565, when the initial structures were built by the Mughal Emperor Akbar, and subsequently taken over by his grandson Shah Jahan, who added most of the marble creations to the fort.

31) World Health Day is celebrated every year on\_\_\_\_\_.

- a) 8<sup>th</sup> May
- b) 2<sup>nd</sup> March
- c) 7<sup>th</sup> April
- d) 9<sup>th</sup> June

Answer: c)

The World Health Day is a global health awareness day celebrated every year on 7 April, under the sponsorship of the World Health Organization, as well as other related organizations. This day aims to remind world leaders of the critical role nurses and midwives play in keeping the world healthy.

32) Who won the best director award at the 2020 Oscar Awards?

- a) Alfonso Cuaron
- b) Guillermo del Toro
- c) Chris Columbus
- d) Mike Newell

Answer: a)

Alfonso Cuaron is a Mexican film director. He won the best director award at the 2020 Oscar Awards for his film 'Roma'.

33) Who is the current Chief Minister of Gujarat?

- a) Anandiben Patel
- b) Vijay Rupani
- c) Shankersinh Vaghela
- d) Dilip Parikh

Answer: b)

Vijay Ramniklal Rupani is an Indian politician from the Bharatiya Janata Party. He is serving as Chief Minister of Gujarat since 7 August 2016, and is a member of the Gujarat Legislative Assembly representing Rajkot West.

34) Which one of the following has a four-chambered heart?

- a) Chameleon
- b) Tortoise
- c) Snake
- d) Crocodile

Answer: d)

Crocodiles have four-chambered hearts with two atria and two ventricles.

35) What is the chemical-formula of Laughing Gas?

- a)  $\text{NaNO}_3$
- b)  $\text{KOH}$
- c)  $\text{N}_2\text{O}$
- d)  $\text{CHCl}_3$

Answer: c)

Nitrous oxide, commonly known as laughing gas or nitrous, is a chemical compound, an oxide of nitrogen with the formula  $\text{N}_2\text{O}$ .

36) Mount Stromboli Volcano is located in which country?

- a) Indonesia

## RRB NTPC Memory Based Model Paper Based on Feb 05 Exam

- b) Australia
- c) Italy
- d) Myanmar

Answer: c)

Stromboli is one of the most active volcanoes on Earth and has been erupting almost continuously since 1932. It is in Italy.

37) Pyrometer is used to measure\_\_\_\_\_.

- a) electric charge
- b) specific gravity of liquid
- c) temperature of a surface
- d) electric resistance

Answer: c)

A pyrometer is a type of remote-sensing thermometer used to measure the temperature of distant objects.

38) In context to computer, the connection between hardware and user is known as\_\_\_\_\_.

- a) confederate
- b) interface
- c) interconnection
- d) affiliate

Answer: b)

In computing, an interface is a shared boundary across which two or more separate components of a computer system exchange information. The exchange can be between software, computer hardware, peripheral devices, humans, and combinations of these.

39) Pradhan Mantri MUDRA Yojana (PMMY) was launched in which year?

- a) 2014
- b) 2018
- c) 2015
- d) 2017

Answer: c)

Pradhan Mantri MUDRA Yojana (PMMY) is a scheme launched by the Hon'ble Prime Minister on April 8, 2015 for providing loans up to 10 lakh to the non-corporate, non-farm small/micro enterprises.


40) Angel Falls, world's highest waterfall is located in\_\_\_\_\_.

- a) Australia
- b) Myanmar
- c) Venezuela
- d) Italy

Answer: c)

Angel Falls is a waterfall in Venezuela. It is the world's highest uninterrupted waterfall. The waterfall drops over the edge of the Auyan-tepui mountain in the Canaima National Park, a UNESCO World Heritage site in the Gran Sabana region of Bolivar State.

## RRB NTPC Memory Based Model Paper Based on Feb 05 Exam

 **guidely**


**Bundle PDF Course**

For All Bank Mains Exams

7500+ Questions

Reasoning | Quants | English |  
Current Affairs Quiz | Static Banking & GK

[Enroll Now](#)

 **guidely**

**Special Bundle PDF**

for IBPS Clerk Prelims 2020

3500+ Questions

Reasoning | Quants | English

[Download PDF](#)

 **guidely**

**Platinum Package**

Topic Test | Sectional Test | Full Test

3000+ Mock Tests

[Subscribe Now](#)