RRB NTPC Tier I Official Paper (Held On: 3 Apr 2016 Shift 1) (Previous Year Paper)

RRB NTPC • 2016 • 100 questions • 90 minutes • Answer key and solutions

Take this paper as a timed mock test

Practise under exam conditions, then review your answers after you submit.

yourmocktest.com/pyq/rrb-ntpc/rrb-ntpc-tier-i-official-paper-held-on-3-apr-2016-shift-1-previou…

Scan the QR code or click the link to open it.

Q1. What among the following is FALSE about the Richter scale?

A. It was developed by Charles Richter and Gutengberg in 1935.

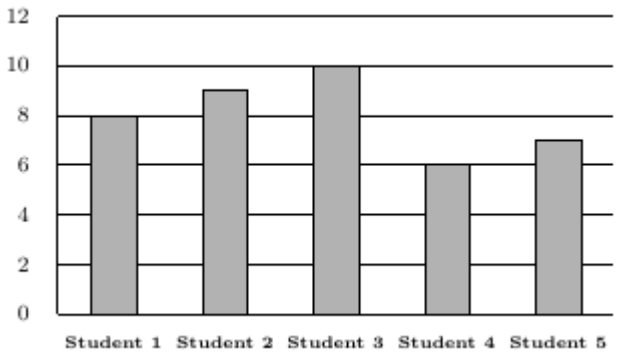
B. It is a logarithmic scale

C. It can be measured using a seismometer

D. Magnitude of 8-9 on a Richter scale means it is a micro earthquake.

(a) B
(b) D
(c) C
(d) A

Q2. The following graph shows the marks obtained by 5 students. Their marks are given out of 10.



How many more points did students 3 and 5 score than students 4 and 1?

A. 2

B. 1

C. 3

D. 4

(a) A
(b) D
(c) C
(d) B

Q3. What is the device that converts digital signals into analog signals?

A. WiFi

B. Modem

C. Port

D. USB

(a) D
(b) A
(c) B

YourMockTest.com — Free Study Material

(d) C

Q4. If N : 38 ? 3 : 57, Find N.

(a) 2/3
(b) 1/3
(c) 3
(d) 2

Q5. The distance between two points A and B is covered in 5 ½ hours at a speed of 50 km/hr. If the speed is increased by 5 km/hr, how much time would be saved?

A. 5 minutes
B. 15 minutes
C. 50 minutes
D. 30 minutes

(a) A
(b) D
(c) B
(d) C

Q6. If x = 7 – 4 √3 find the value of √x + 1/(√x)

A. 0
B. 1
C. 4
D. -4

(a) D
(b) A
(c) C
(d) B

Q7. Which is India's longest river that does not flow into the sea?

A. Ganga
B. Yamuna
C. Tapti
D. Kaveri

(a) A
(b) C
(c) D
(d) B

Q8. What is the most cultivated crop in India?

A. Ragi
B. Wheat
C. Corn
D. Rice

(a) B
(b) C
(c) D
(d) A

Q9. In which city is the value of Gold determined?

A. California
B. Sydney
C. Rome

YourMockTest.com — Free Study Material

D. London

(a) C
(b) B
(c) A
(d) D

Q10. Find the similarity in the following:

Elephant, Camel, Buffalo, Giraffe

(a) The milk produced by all of them cannot be consumed by people.
(b) All of them have horns.
(c) None of them are mammals.
(d) The young ones of all of them are called calf.

Q11. If y = (2x - 1)/(x + 3), find x when y = 1

A. 4
B. -4
C. 3/2
D. 4/3

(a) C
(b) D
(c) A
(d) B

Q12. Which vitamin among the following is crucial for blood clotting?

(a) Vitamin D
(b) Vitamin K
(c) Vitamin A
(d) Vitamin E

Q13. If the mathematical operators, ' + ' and ' × ' are interchanged, what will be the value of the equation 9 ÷ 5 + 10 – 23 × 2?

(a) 3
(b) 2
(c) -3
(d) -5

Q14. A wire is in the shape of a rectangle. Its length is 42.7 m and breadth is 21.8 m. If the same wire is re-bent in the shape of a square, what will be the measure of the side of the square?

A. 16.125
B. 32.25
C. 11.35
D. 22.70

(a) C
(b) D
(c) A
(d) B

Q15. According to the Swachh Bharat 2015 survey, which is the cleanest city of India?

A. Chennai
B. Delhi
C. Ahmedabad
D. Mysore

(a) A

YourMockTest.com — Free Study Material

(b) B
(c) C
(d) D

Q16. Which is the most peaceful country according to the 2015 Global Peace Index?

A. Iceland
B. Bhutan
C. Austria
D. New Zealand

(a) C
(b) A
(c) D
(d) B

Q17. Concept of Chipko movement originally came from _____?

A. Rajasthan
B. Assam
C. Arunachal Pradesh
D. Mizoram

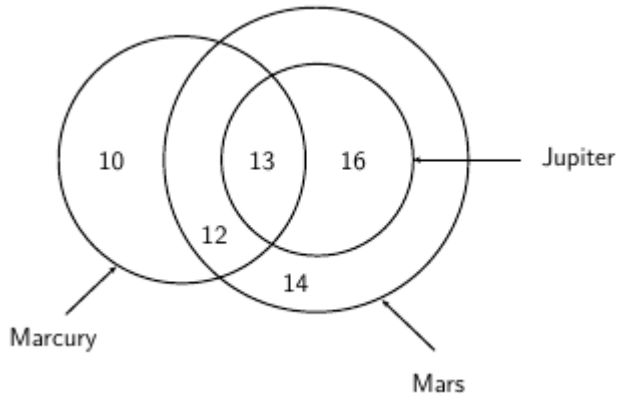
(a) C
(b) D
(c) B
(d) A

Q18. Rearrange the jumbled letters to make a meaningful word and then select the one which is different?

(a) ORIN
(b) NADA
(c) POPCER
(d) DLOG

Directions

Study the following diagram and answer questions based on it the diagram represents the likes of kids of a class.



Q19. The ratio of kids who like only Mars to those who like all the three is

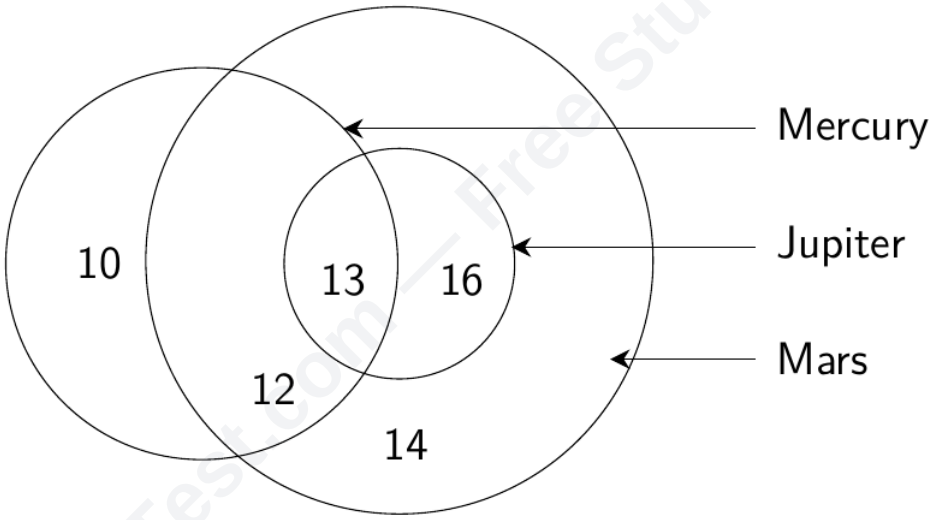
A. 7/5
B. 7/8
C. 7/6
D. 14/13

(a) D
(b) C
(c) A

(d) B

Directions

Study the following diagram and answer questions based on it. The diagram represents the likes of kids of a class.



Q20. What is the difference between the kids who like Mercury and Jupiter?

(a) 6
(b) 8
(c) 10
(d) 12

Q21. How many people who like Mars and like Jupiter also?

(a) 45
(b) 29
(c) 26
(d) 13

Q22. Name the capital of Uganda?

A. Mogadishu
B. Kampala
C. Lusaka
D. Bulenga

(a) C
(b) A
(c) B
(d) D

Q23. What is Madhubani art?

A. The art of Storytelling
B. The art of Gujarat
C. A folk art practiced in Bihar
D. The art of honey extraction

(a) A
(b) D
(c) B
(d) C

YourMockTest.com — Free Study Material

Q24. What is ' Planet Nine'?

A. Planet in the Comet Galaxy
B. A planet in Andromeda Galaxy
C. A planet where the 'Star Wars' series took place
D. A large icy planet proposed in the outer Solar System

(a) D
(b) A
(c) B
(d) C

Q25. Which is NOT an Operating System?

A. OS X
B. Windows 7
C. DOS
D. C++

(a) D
(b) B
(c) C
(d) A

Q26. What is the smallest number of 5 digits which is exactly divisible by 12, 24, 48, 60 and 96?

A. 10000
B. 10024
C. 10160
D. 10080

(a) C
(b) A
(c) D
(d) B

Q27. Find the cost in rupees for carpeting a room 65 dm × 30 dm at Rs. 45. Per sq.m

A. 877.50
B. 87750
C. 87.75
D. 8775

(a) B
(b) A
(c) C
(d) D

Q28. What is most common treatment for bacterial infections in humans?

A. Aspirin
B. Antibodies
C. Antibiotics
D. Antigen

(a) B
(b) D
(c) A
(d) C

YourMockTest.com — Free Study Material

Q29. The ratio of ages of Jai and Joy is 5 : 2. The sum of their ages is 63. After 9 years what will be the ratio of their ages?

A. 5 : 2
B. 2 : 1
C. 3 : 2
D. 4 : 3

(a) C
(b) B
(c) A
(d) D

Q30. By selling 90 chocolates Rs. 160, a chocolate trader loses 20%. How many chocolates should he sell for Rs. 96 to make a profit of 20%?

A. 45
B. 36
C. 54
D. 28

(a) C
(b) D
(c) A
(d) B

Q31. What is an archipelago?

A. Group, chain, cluster or collection of Islands
B. The meeting of Land and Sea
C. An Architect's paradise
D. A type of Church

(a) C
(b) D
(c) A
(d) B

Directions

Six animals - horse, cow, pig, dog, donkey and goat are tied to a pole each, in a circle, facing each other, in random order.
Consider the following information and answer the questions based on it.
1. Goat is to the immediate right of pig.
2. Cow is not tied next to either donkey or dog.
3. If the animals mark the vertices of a hexagon, then the horse is diagonally opposite to the pig.

Q32. The cow is tied to the immediate left of

(a) Goat
(b) Pig
(c) Horse
(d) Dog

Q33. Which pair is tied next to each other?

(a) Horse and Goat
(b) Pig and Cow
(c) Goat and Dog
(d) Donkey and Dog

YourMockTest.com — Free Study Material

Q34. Which animal is tied to the immediate left of pig?

(a) Goat
(b) Donkey
(c) Dog
(d) Cannot be determined

Q35. Who is Sabari kartik?

A. Famous Indian Karate Champion
B. Rugby player
C. Cricket player
D. Kabaddi Champion

(a) B
(b) A
(c) C
(d) D

Q36. Which among the following is popularly called Laughing Gas?

A. Nitric oxide
B. Nitrogen dioxide
C. Nitrous oxide
D. Nitrogen peroxide

(a) C
(b) D
(c) B
(d) A

Q37. Four pairs of words are given. Find the odd one out.

A. 65^(th) anniversary : Diamond Jubilee
B. 50^(th) anniversary : Golden Jubilee
C. 40^(th) anniversary : Ruby Jubilee
D. 25^(th) anniversary : Silver Jubilee

(a) A
(b) C
(c) B
(d) D

Q38. A lady wants to buy the following items in the given price range-

1. Tomato between Rs. 40 and Rs. 45 per kg.
2. Grapes in the price range of Rs. 80 and Rs. 90 per kg.
3. Milk packets at Rs. 23 per liter.

In which shop from the following will she definitely get all her items/

A. Shop S sells tomato at Rs. 22.5 per half kg, Grapes at Rs. 82 per kg and milk at Rs. 24 per liter.
B. Shop H sells grapes at Rs. 21 per quarter kg, milk at 12.5 per half litre and tomato at Rs. 22 per half kg.
C. Shop O sells milk at Rs. 11.5 per half litre, tomato at 21 per half kg and grapes at Rs. 43 per half kg.
D. Shop P sells tomato at Rs. 23.5 per half kg, grapes at Rs. 85 per kg and milk at Rs. 23 per litre.

(a) A
(b) D
(c) B
(d) C

YourMockTest.com — Free Study Material

Q39. What did M.S. Swaminathan an Indian geneticist, play a leading role in?

A. Yellow Revolution
B. White Revolution
C. Green Revolution
D. Black Revolution

(a) D
(b) B
(c) C
(d) A

Q40. What is the mean of the marks scored by students in a science exam?

41, 39, 52, 48, 54, 62, 46, 52, 40, 96, 42, 40, 98, 60, 52

A. 54.8
B. 58.4
C. 53.4
D. 53.8

(a) C
(b) B
(c) D
(d) A

Q41. Simplify: (-4.6) × (-4.6) ÷ (-4.6 + 0.6)

A. -5.29
B. -0.529
C. -4.06
D. 5.01

(a) B
(b) D
(c) C
(d) A

Q42. Indian currency notes are printed in which place?

A. New Delhi
B. Bombay
C. Nashik
D. Agra

(a) C
(b) B
(c) D
(d) A

Q43. The price of 4 ½ m of cloth is Rs. 60 ¾. find the cost per meter.

A. 15 ½
B. 13 ½
C. 14 ¾
D. 13 ¾

(a) D
(b) C
(c) B
(d) A

YourMockTest.com — Free Study Material

Q44. What is the number of Galilian moons of Jupiter discovered by Galileo Gelilei in January 1610?

A. 2
B. 3
C. 4
D. 5

(a) C
(b) D
(c) B
(d) A

Q45. Mica is available abundantly in which state?

A. West Bengal
B. Madhya Pradesh
C. Bihar
D. Rajasthan

(a) A
(b) D
(c) C
(d) B

Q46. If X = 24 and BE = 7, then RING = ?

(a) 41
(b) 47
(c) 48
(d) 49

Q47. The product of two consecutive odd numbers is 399. Find the lower of them.

A. 17
B. 19
C. 21
D. 23

(a) B
(b) C
(c) A
(d) D

Q48. Between which stations does India's longest train run?

A. Kanyakumari - Baramulla
B. Dibrugarh - Naliya
C. Dibrugarh - Kanyakumari
D. Thiruvanathapuram - New Delhi

(a) D
(b) B
(c) C
(d) A

Q49. Read the following and answer the question based on it.

The Directive Principles and Fundamental Rights of the state are sections of the Constitution of India. Before that, the section sets the basic obligations of the state to its citizens and the duties of citizens towards the state. The latter sections include the fundamental officer who is entitled to an Indian citizen.

Which conclusion comes from the given paragraph?

A. Fundamental rights are only right and not applicable.

YourMockTest.com — Free Study Material

B. Directive principle is the right of a citizen and is applicable.
C. Directive principle is liability, which is related to the completion of the state.
D. Directive Principles cancel the Fundamental Officer

(a) B
(b) D
(c) C
(d) A

Q50. What is the Siberian ibex?

A. Mountain Lions
B. Large and heavily built goats
C. Mountain Deer
D. A Type of Horse

(a) B
(b) C
(c) A
(d) D

Q51. Cost price of 25 chairs equals the selling price of 20 chairs. Find the profit%.

A. 20%
B. 33%
C. 25%
D. 12.5%

(a) B
(b) A
(c) D
(d) C

Q52. A trader marks his goods at 20% above cost price. If he allows a discount of 5% what is his final profit%.

A. 12%
B. 14%
C. 15%
D. 18%

(a) A
(b) B
(c) C
(d) D

Q53. What is Swadeshi?

A. Made in India, from materials that have also been produced in India
B. Made in Foreign Lands from materials that are foreign
C. A Charkha that is used to cotton wool
D. A Country Flag that is made of Cotton

(a) B
(b) D
(c) C
(d) A

Q54. Which among the following happens in an oxidation reaction?

A. Electrons are gained
B. Electrons are lost
C. Protons are gained

YourMockTest.com — Free Study Material

D. Protons are lost

(a) D
(b) A
(c) C
(d) B

Q55. Where is the Masai Mara National Reserve?

A. Mali
B. Kenya
C. Gabon
D. Zambia

(a) A
(b) D
(c) B
(d) C

Q56. Find the compound interest to the nearest rupee on Rs. 7500 for 2 years 4 months at 12% p.a reckoned annually?

A. 2284
B. 2176
C. 2097
D. 2235

(a) C
(b) B
(c) A
(d) D

Directions

The following table represents the percentage marks of four students in six subjects. Consider the table and answer questions based on it.

Student	Maths	Science	History	Geography	English	Hindi
Shamita	75	80	65	68	72	65
Smita	80	85	75	65	70	70
Shilpa	82	88	70	69	71	70
Sheela	78	87	65	70	75	74

Q57. The average marks obtained by the students in Geography and History are

A. 68.75 and 68
B. 70.5 and 69
C. 68 and 68.75
D. 68.75 and 68.5

(a) A
(b) C
(c) D
(d) B

Q58. Average marks obtained in Science is higher than that of maths by

A. 15
B. 6.87
C. 7.86
D. 6.25

YourMockTest.com — Free Study Material

(a) D
(b) B
(c) A
(d) C

Q59. Who has the highest total marks?

A. Shamita
B. smita
C. Shilpa
D. Sheela

(a) D
(b) A
(c) C
(d) B

Q60. If cos θ + sin θ = m, sec θ + cosec θ = n, what is m/n?

A. 1
B. sin θ cos θ
C. sec θ cosec θ
D. cot θ tan θ

(a) B
(b) A
(c) C
(d) D

Q61. M is the son of N. O is the father of N. P is the father of M. How is N related to P?

(a) Wife
(b) Husband
(c) Father
(d) Mother

Q62. What is Sepak Takraw?

A. A Bird
B. An ancient hunting team in Malaysia
C. Kick Volleyball
D. A Type of Combat Flight

(a) C
(b) D
(c) A
(d) B

Q63. X, Y and Z take 18 days to complete a piece of work. If X works alone he finishes the work in 36 days and if Y works alone he finishes it in 60 days. How long will it take Z to complete the work alone?

A. 78 days
B. 90 days
C. 96 days
D. 14 days

(a) B
(b) A
(c) D
(d) C

YourMockTest.com — Free Study Material

Q64. Which is the Judicial capital of Sri Lanka?

A. Colombo
B. Kandy
C. Jayawadenepura Kotte
D. Anuradhapura

(a) D
(b) C
(c) B
(d) A

Q65. Solve: (sin θ)/(1 + cosθ) + (1 + cosθ)/sinθ = ?

A. tan θ
B. cot θ
C. frac2sinθ
D. frac2cosθ

(a) A
(b) D
(c) B
(d) C

Q66. The Panchatantra fables are thought to be composed by

A. Mullah Nasruddin
B. Vishnu Sharma
C. King Sudharshan
D. Tenali Raman

(a) B
(b) D
(c) C
(d) A

Q67. What was the code name of the nuclear tests conducted by India in Pokhran in 1998?

A. Operation Desert storm
B. Operation Vijay
C. Operation Shakti
D. Operation Kaboom

(a) A
(b) C
(c) B
(d) D

Q68. An assertion (A) and a reason (R) are given below.

Assertion (A): Penguins are birds, found in the hottest regions of the earth.
Reason (R): Birds in hot regions do not have wings.
Choose the correct option.

(a) Both A and R are true and R is the correct explanation of A
(b) Both A and R are true, but R is not the correct explanation of A
(c) A is true, but R is false
(d) Both A and R are false

YourMockTest.com — Free Study Material

Q69. Who is Anjolie Ela Menon?

A. An Indian Politician

B. Bharatanatyam dancer

C. A popular musician

D. Indian Female Artist

(a) A
(b) B
(c) D
(d) C

Q70. The sum of the digits of a 2 digit number is 9, When 27 is added to the number, the digits get interchanged. Find the number.

A. 45

B. 36

C. 18

D. 27

(a) C
(b) D
(c) B
(d) A

Q71. Find the missing (?) in the series

13, 14, 18, 27, ?, 68, 104 .....

(a) 36
(b) 41
(c) 43
(d) 54

Q72. 'Kitty said, "Uthara is one of the two daughters of my mother's brother's wife". How is Kitty's mother related to Uthara's sister?

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

Q73. One angle of a triangle is 55 If the other two angles are in the ratio 9 : 16, find the angles?

A. 65 and 115

B. 90 and 160

C. 55 and 165

D. 45 and 80

(a) B
(b) C
(c) A
(d) D

Q74. Which contemporary painter made a series of paintings on Mahatma Gandhi?

A. Amrita Shergill

B. Ram Kinkar

C. M.F. Hussain

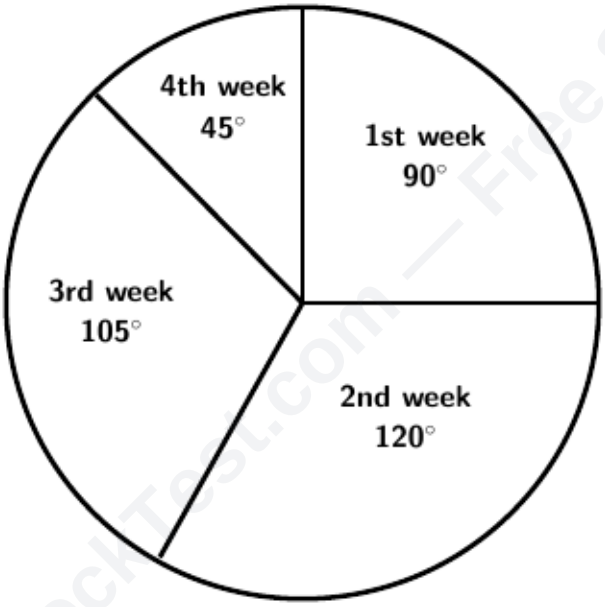
D. Atul Dodiya

(a) C
(b) D

YourMockTest.com — Free Study Material

(c) B
(d) A

Q75. A person's income is shown by the pie chart given below. If his total income is Rs. 360,000, find the income of his second week.



A. Rs 90,000
B. Rs.120,000
C. Rs 45,000
D. Rs 105,000

(a) D
(b) A
(c) C
(d) B

Q76. If HOUSES = GNAYDR, then DIARY =

(a) CHGXZ
(b) CHEWZ
(c) CHGXX
(d) CHEWX

Q77. What does "Satyameva Jayate" mean?

A. "Truth alone triumphs"
B. "True Faith is Rare"
C. "Truth is Drivine"
D. "Truth is a Treasure"

(a) C
(b) B
(c) A
(d) D

Q78. Male is the capital of which country?

A. Mauritius
B. Lakshadweep
C. Maldives
D. Malaysia

(a) C

(b) D
(c) B
(d) A

Q79. Select the alterative that does not have a similar relationship as the given pair.

Forward : Backward

(a) Hope : Despair
(b) Love : Hate
(c) Anger : Wrath
(d) Light : Dark

Q80. A statement followed by some conclusions are given below, find which of the given conclusions logically follow from the given statement.

Statement:

Religions teach the guiding principles for leading one's life.

Conclusions:

I. Religion is a way of life.

II. Religion is a teacher.

(a) Only conclusion I follows.
(b) Only conclusion II follows
(c) Both I and II follow.
(d) Neither I nor II follows.

Q81. If H2O : Hydrogen then KOH : _____

(a) Cobalt
(b) Phosphorous
(c) Potassium
(d) Krypton

Q82. Simplify: 9/13 ÷ 18/26 ÷ 90/52

A. 45/26

B. 13/45

C. 26/45

D. 45/13

(a) B
(b) A
(c) D
(d) C

Q83. Zero degree centigrade is equal to what degree Fahrenheit?

A. 100°F

B. 30°F

C. 34°F

D. 32°F

(a) C
(b) A
(c) B
(d) D

Q84. If SHELF is FURYS then ZEBRA is

(a) NRMEO
(b) MRNEO
(c) NROEM

YourMockTest.com — Free Study Material

(d) MROEN

Q85. What is the normal resting heart rate range for adults (beats/min)?

A. 60 to 100

B. 50 to 80

C. 120 to 180

D. 75 to 120

(a) B
(b) A
(c) C
(d) D

Q86. Q's father is B's son-in-law. C is Q's sister and the daughter of P. P is the maternal aunt of D. How is P related to B?

(a) Son
(b) Daughter
(c) Grandson
(d) Granddaughter

Q87. Who was the first woman to reach summit of Mt. Everest?

A. Bachendri Pal

B. Junko Tabei

C. Arunima Sinha

D. Premlata Agarwal

(a) D
(b) A
(c) C
(d) B

Q88. 6 carpenters make 96 windows in 16 days. If 8 carpenters work for 4 days how many windows will they make?

A. 16

B. 28

C. 36

D. 32

(a) A
(b) B
(c) C
(d) D

Q89. A factory produced 18,58,509 cassettes in the month of January, 7623 more cassettes in the of February and owing to short supply of electricity produced 25,838 less cassettes in March than in February. Find the total production in all?

A. 55,57,312

B. 59,83,245

C. 55,64,935

D. 56,08,988

(a) A
(b) D
(c) B
(d) C

YourMockTest.com — Free Study Material

Q90. What is Makar Sankranti?

A. Lunar eclipse

B. Harvest festival

C. Festival of lights

D. Puppet show

(a) B
(b) A
(c) D
(d) C

Q91. Statements followed by some conclusions are given below.

Statements:

A. Confusion causes mental tension.

B. Mental tension causes anxiety.

Conclusions:

I. Anxiety is a disease.

II. Confusion leads to anxiety.

Find which of the given conclusions logically follow from the given statements.

(a) Only conclusion I follows.
(b) Only conclusion II follows.
(c) Both I and II follow.
(d) Neither I nor II follows.

Q92. If ‘Mango, lemon and melon are fruits’ is written as 439516; ‘Mango and melon are yellow’ is 04516 and ‘Melon is green’ is 857, which digit represents ‘melon’?

(a) 5
(b) 8
(c) 7
(d) Cannot be determined

Q93. Find the missing (?) in the series

AIQ, BJR, CKS, DLT, ?, ...

(a) ENU
(b) BMV
(c) ENV
(d) EMU

Q94. Sanjay and Jacob start running in opposite directions from the same point at speeds of 7m/s and 5m/s. After 42 minutes, how far would they be form each other?

A. 30.24 km

B. 504 km

C. 8.4 km

D. 69.5 km

(a) A
(b) B
(c) C
(d) D

Q95. Which country joined the World Trade Organization as the 164th member in 2015?

A. Philippines

B. Liberia

C. Jordan

YourMockTest.com — Free Study Material

D. Afghanistan

(a) B
(b) C
(c) A
(d) D

Q96. Find the difference between compound interest and simple interest on 5000 for 2 years 8% p.a. payable annually.

A. 45
B. 32
C. 57
D. 84

(a) A
(b) C
(c) D
(d) B

Q97. Solve 12 – [26 – {2 + 5 × (6 – 3)}]

A. 2
B. 3
C. 7
D. 8

(a) B
(b) C
(c) A
(d) D

Q98. Abdul prepared 42 litres of medicine and filled it in bottles of 280 ml each find how many bottles would be required?

A. 15
B. 1500
C. 150
D. 300

(a) A
(b) C
(c) D
(d) B

Q99. The LCM of two consecutive even numbers is 144, find the numbers?

A. 16 and 18
B. 14 and 16
C. 18 and 20
D. 22 and 24

(a) B
(b) D
(c) A
(d) C

Q100. The Dibru-Saikhowa, Nameri and Orang National Park are all found in which state?

A. Andhra Pradesh
B. Assam
C. Arunachal Pradesh
D. Uttarakhand

(a) A

YourMockTest.com — Free Study Material

(b) B
(c) D
(d) C

ANSWER KEY

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

SOLUTIONS

Q1. Answer: (b) D

Option 2 is correct.

• Richter scale is a quantitative measurement of the magnitude of an Earthquake.

• It was developed by Charles Richter and Gutenberg in 1935.

• It is a logarithmic scale and can be measured using a seismometer.

• As it is a logarithmic scale, each whole-number increase on the scale represents a tenfold increase in measured amplitude.

• Magnitude level of 8 and higher on a Richter scale means it is a very major earthquake and would cause destruction and loss over large areas.

• Magnitude level of 5.0-5.9 is considered a moderate and magnitude level less than 1.0 to 2.9 is considered a micro-level earthquake and it is generally not felt by people.

Q2. Answer: (c) C

Total marks of student 3 and 5 = 10 + 7 = 17

Total marks of student 4 and 1 = 6 + 8 = 14

Therefore Required difference = 17 – 14 = 3

Q3. Answer: (c) B

The correct answer is Modem.

Key Points

• The modem converts the digital signal into an analog signal.

• It stands for Modulator-Demodulator.

• In day to day activity, it allows a computer or another device, such as a router to connect to the Internet.

• As the name suggests, it first modulates and then demodulates.

• It converts (modulates) an analog signal from a telephone or cable wire to digital data of 1s and 0s. This digital data is recognized by a computer.

• Then, it converts (demodulates) digital data from a computer into an analog signal that can be sent over standard telephone lines.

Q4. Answer: (d) 2

38 and 57 both are divisible by 19

57/19 = 3 and 38/19 = 2

Hence, N = 2.

YourMockTest.com – Free Study Material

Q5. Answer: (b) D

Let, Time saved be x hours

According to the question,

$(50 + 5) \times (5.5 – x) = 50 \times 5.5$

$\Rightarrow 302.5 – 55x = 275$

$\Rightarrow 55x = 27.5$

$\Rightarrow x = 0.5$

Therefore Time save = 0.5 hours = 0.5 × 60 min = 30 minutes

Q6. Answer: (c) C

$x = 7 – 4\sqrt{3}$

$\Rightarrow x = 4 + 3 – 4\sqrt{3}$

$\Rightarrow x = 2^2 + \sqrt{3}^2 – 2 \times 2 \times \sqrt{3}$

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

Therefore $\sqrt{x} + 1/(\sqrt{x})$

$\Rightarrow \sqrt{((2 - \sqrt{3})^2)} + 1/(\sqrt{((2 - \sqrt{3})^2)})$

$\Rightarrow 2 - \sqrt{3} + 1/(2 - \sqrt{3})$

$\Rightarrow 2 - \sqrt{3} + ((2 + \sqrt{3}))/((2 + \sqrt{3})(2 - \sqrt{3}))$

$\Rightarrow 2 - \sqrt{3} + ((2 + \sqrt{3}))/(4 - 3)$

$\Rightarrow 2 – \sqrt{3} + 2 + \sqrt{3}$

$\Rightarrow 4$

Q7. Answer: (d) B

Option 4 is correct.

- Yamuna is India's longest river that does not flow into the sea.
- Yamuna is a tributary of Ganga river.
- The Yamuna is approximately 1376 km. It originates from Yamunotri Glacier in Uttrakhand.
- Tributaries of Yamuna river- Chambal, Betwa, Sindh, Banas, Hindon, Ken, etc.
- Yamuna river merges with the Ganga river at Triveni Sangam in Praygraj in Uttar Pradesh.
- It is called Triveni because it is believed that the mythic Saraswati river along with Ganga and Yamuna also merges here.

Q8. Answer: (c) D

Option 3 is correct.

- Rice is the most cultivated crop in India.
- It contributes to more than 40 per cent of the country's total food grain production
- West Bengal is the largest rice-producing state in India with almost half of its arable land under rice cultivation.
- Uttar Pradesh is the second-largest producer of rice with almost 5.86 million hectares of land under rice cultivation.
- The main rice growing season in the country is the 'Kharif'.
- It is known as winter rice as per the harvesting time.
- The sowing time of winter (kharif) rice is June-July and it is harvested in November-December.

Q9. Answer: (d) D

Option 4 is correct.

- The value of Gold is determined in London, UK.
- The ICE Benchmark Administration (IBA) publishes the LBMA Gold Price in US dollars twice in a day. This serves as a benchmark price for gold producers, investors, consumers, and central banks worldwide.
- However, the price of gold is adjusted in real-time based on financial evaluations of anonymous auction which runs every 45 seconds.
- When all buy and sell orders and imbalances are within 20,000 troy ounces, the price is fixed.
- Traders primarily use two pricing models-Gold Futures Price and Gold Spot Price.

Q10. Answer: (d) The young ones of all of them are called calf.

The given option A is not correct because buffalo’s milk and Camel’s milk are consumed.

Second option is not correct because elephants don’t have horns.

YourMockTest.com — Free Study Material

Third option is not correct because Giraffe is a mammal.

Fourth option is correct as all of their young ones are called calf.

Q11. Answer: (c) A

y = (2x - 1)/(x + 3)

=> 1 = (2x – 1)/(x + 3)

=> x + 3 = 2x – 1

=> x = 4

Therefore When y = 1, x = 4

Q12. Answer: (b) Vitamin K

Option 2 is correct.

• Vitamin K is crucial for blood clotting.

• Clotting of blood is an important process that prevents excessive bleeding when a blood vessel is injured.

• The whole process involves three basic steps:

• Vascular spasm.

• The formation of a platelet plug.

• Coagulation, in which clotting factors promote the formation of a fibrin clot.

Q13. Answer: (c) -3

Given equation: 9 ÷ 5 + 10 – 23 × 2

After interchanging: 9 ÷ 5 × 10 – 23 + 2

Apply BODMAS rule we get,

1.8 × 10 – 23 + 2 = 18 + 2 – 23 = -3

Hence the correct option is -3.

Q14. Answer: (d) B

Total length of the wire = 2 × (42.7 + 21.8) m = 129 m

Let, side of the square be x m

According to the question,

4x = 129

=> x = 129/4 = 32.25

Therefore The measure of the side of the square = 32.25 m

Q15. Answer: (d) D

Option 4 is correct.

• According to the Swachh Bharat 2015 survey, Mysore (in Karnataka) was the cleanest city of India.

• The survey 2015 ranked 476 cities in the country.

• Swachh Survekshan is an annual survey of cleanliness, hygiene, and sanitation in cities and towns across India. It was launched as part of the Swachh Bharat Abhiyan of India.

• As per Swachh Survekshan 2019:

• Indore was rank first with a score of 4659.09.

• The second city was Ambikapur in Chattisgarh with a score of 4394.09.

• In this survey, Mysore in Karnataka came at third with a score of 4378.54.

Q16. Answer: (b) A

Option 2 is correct.

• According to the 2015 Global Peace Index, Iceland was the most peaceful country.

• Iceland remains the most peaceful country in the world in the 2019 Global Peace Index also.

• The thirteenth edition of the Global Peace Index (2019) ranks 163 independent states and territories according to their level of peacefulness.

• The index is produced by the Institute for Economics and Peace.

• It covers 99.7 percent of the world’s population and uses 23 qualitative and quantitative indicators.

• It measures the state of peace using three thematic domains- the level of Societal Safety and Security; the extent of Ongoing Domestic and International Conflict; and the degree of Militarisation.

YourMockTest.com — Free Study Material

Q17. Answer: (d) A

Option 4 is correct.

• Chipko movement began in Rajasthan.

Key Points

• The original 'Chipko movement' was started around 260 years back in the early part of the 18th century in Rajasthan by the Bishnoi community.

• It is said that members of the Bishnoi community of Rajasthan led by Amrita Devi laid down their lives in an effort to protect the Khejadi trees from being felled on the orders of the king of Jodhpur in 1730.

• After this, the king of Jodhpur gave a strong royal decree preventing the cutting of trees in all Bishnoi villages.

• Rajasthan capital: Jaipur.

• Rajasthan CM: Bhajan Lal Sharma

• Rajasthan Governor: Haribhau Kisanrao Bagade

Confusion Points

• In modern times Chipko movement began in Uttarakhand in 1973.

• Sunderlal Bahuguna was the leader of this movement.

Q18. Answer: (b) NADA

The words that can be formed form given letter are as follows,

A. ORIN => IRON

B. NADA => No meaningful word

C. POPCER => COPPER

D. DLOG => GOLD

SO, NADA is the different from the given options.

Q19. Answer: (a) D

Number of kids who like only Mars = 14

Number of kids who like all three = 13

Therefore Required Ratio = 14/13

Q20. Answer: (a) 6

The given diagram is,

Number of kids like mercury = 10 + 12 + 13 = 35

Number of kids like Jupiter = 16 + 13 = 29

Difference = Number of kids like mercury - Number of kids Like Jupiter = 35 – 29 = 6

Q21. Answer: (b) 29

The given diagram is,

People who like mars and also Jupiter = 13 + 16 = 29

So, 29 people who like Mars and Like Jupiter also.

Q22. Answer: (c) B

Option 3 is correct.

• The capital of Uganda is Kampala.

• Uganda is a landlocked country in the East Africa region.

• Bulenga is just an area in Kampala.

• Currency-Ugandan shilling

• President-Yoweri Museveni

• Mogadishu is the capital of Somalia.

• Currency-Somali shilling

• Lusaka is the capital of Zambia.

• Currency-Zambian kwacha

YourMockTest.com — Free Study Material

Q23. Answer: (d) C

Option 4 is correct.

• Madhubani art: A folk art practised in Bihar.

• It is a style of Indian painting and it is majorly practised in the Mithila region.

• This painting is made by using many tools namely twigs, brushes, nib-pens, matchsticks, natural dyes, etc.

• The famous subjects for paintings are-nature and mythology to depict different events like birth, marriage, and cycles of life.

• Bihar Capital- Patna

• Bihar CM- Nitish Kumar

• Bihar Governor- Rajendra Vishwanath Arlekar

Q24. Answer: (a) D

Option 1 is correct.

• Planet Nine: A large icy planet proposed in the outer Solar System.

• It is a hypothetical Neptune-sized planet, which orbits our Sun in a highly elongated orbit far beyond Pluto.

• It could have a mass about 10 times that of Earth.

• There is no direct observation of the object. It is a mathematical prediction of a planet that could explain the unique orbits of some smaller objects in the Kuiper Belt.

• The Kuiper Belt is a region of the Solar System that exists beyond the eight major planets (extending from the orbit of Neptune).

• Astronomers are still looking for this planet.

Q25. Answer: (a) D

Option 1 is correct.

• C++ is NOT an Operating System.

• An operating system is a system software or an interface between a computer user and computer hardware. It basically to communicate with the computer.

• An operating system performs tasks like file management, memory management, process management, handling input and output, and controlling peripheral devices.

• Examples of operating systems are Window7, Window8, DOS, OS X, etc.

• C++ programming language created by Bjarne Stroustrup.

• It is widely used for graphical applications that can be run in Windows and Macintosh.

• This language is used for making an application that requires high-performance image processing, real-time physical simulations, etc.

Q26. Answer: (c) D

12 = 2 × 2 × 3

24 = 2 × 2 × 2 × 3

48 = 2 × 2 × 2 × 2 × 3

60 = 2 × 2 × 3 × 5

96 = 2 × 2 × 2 × 2 × 2 × 3

=> LCM of 12, 24, 48, 60 and 96 = 2 × 2 × 2 × 2 × 2 × 3 × 5 = 480

Smallest 5 digit number = 10000

On dividing 10000 by 480 we get 400 as a remainder. [Because 10000 = 480 × 20 + 400]

Therefore Smallest 5 digits number divisible by 12, 24, 48, 60 and 96 = 10000 – 400 + 480 = 10080

Q27. Answer: (b) A

We know, 1 dm = 0.1 m

Calculation

Total area of the room = (6.5 × 3) = 19.5 sq. m

Therefore Total cost for carpeting the room = (45 × 19.5) = Rs. 877.50

Q28. Answer: (d) C

Option 4 is correct.

• Antibiotics are the most common treatment for bacterial infections in humans.

• Antibiotics are medicines, which help in stopping the infections caused by bacteria. They kill the bacteria or do not let them

reproduce.

• Aspirin- It is a medication used to reduce pain, fever, or inflammation.

• Antibodies- It a protective protein produced by the immune system in response to an antigen.

• Antigen- An antigen is any substance that causes your immune system to produce antibodies against it.

Q29. Answer: (b) B

Let, the age of Jai be 5x and age of Joy be 2x

According to the question,

5x + 2x = 63

=> 7x = 63

=> x = 9

Present age of Jai = 5 × 9 = 45 years

Present age of Joy = 2 × 9 = 18 years

=> After 9 years Jai's age = (45 + 9) = 54 years

=> After 9 years Joy's age = (18 + 9) = 27 years

Therefore Required Ratio = 54 : 27 = 2 : 1

Q30. Answer: (d) B

Let, cost price of a chocolate be Rs. x

Selling price of a chocolate = Rs. 160/90 = Rs. 16/9

According to the question,

x – x × 20/100 = 16/9

=> 0.8x = 16/9

=> x = 16/9 × 10/8

=> x = 20/9

Selling price of a chocolate at 20% profit = Rs. (20/9 + 20/9 × 20/100) = Rs. 24/9

Let, Number of chocolates he should sell for Rs. 96 be k

=> 24k/9 = 96

=> k = 96 × 9/24 = 36

Therefore He should sell 36 chocolates for Rs. 96

Q31. Answer: (c) A

Option 3 is correct.

• An archipelago is a group, chain, cluster, or collection of Islands.

• It is a geographical term for a group of islands scattered across a body of water.

• Malay Archipelago is considered the largest group of islands in the world.

• It consists of more than 17,000 islands of Indonesia and the approximately 7,000 islands of the Philippines.

• Lakshadweep of India is considered as an archipelago consisting of 36 islands with an area of 32 sq km.

Q32. Answer: (c) Horse

Total no of animals = 6

Animals are standing in a circle where they mark vertices of a hexagon.

So,

Goat is immediate right of pig.

The horse is diagonally opposite to the pig.

So,

Cow is not tied next to donkey or Dog.

So,

The cow is immediate left to Horse.

Q33. Answer: (d) Donkey and Dog

Total no of animals = 6

Animals are standing in a circle where they mark vertices of a hexagon.

So,

Goat is immediate right of pig.

The horse is diagonally opposite to the pig.

So,

Cow is not tied next to donkey or Dog.

So,

No other pair is tied next to each other except Donkey and Dog.

Q34. Answer: (d) Cannot be determined

Total no of animals = 6

Animals are standing in a circle where they mark vertices of a hexagon.

So,

Goat is immediate right of pig.

The horse is diagonally opposite to the pig.

So,

Cow is not tied next to donkey or Dog.

So,

As the positions of Donkey and Dog are not fixed so, it cannot be determined that who is to the immediate left to Pig.

Q35. Answer: (b) A

Option 2 is correct.

• Sabari kartik is a famous Indian Karate Champion.

• Sabari represents India in various Karate tournaments.

• His notable participation includes 16th 2010 Asian Games held in China, the Malaysian Open, and the first South Asian championship held in Delhi.

• He won gold in the 24th National Karate Championship, gold in 34th National Games, Silver, and Bronze in 1st South Asian karate championship, Silver in Malaysian Open, etc.

Q36. Answer: (a) C

Option 1 is correct.

• Nitrous oxide is popularly called Laughing Gas.

• It is a colorless and odorless substance.

• The formula of Nitrous Oxide- N_2O.

• It is effective as a sedative and used as a local sedation method by many dentists.

• It is mixed with oxygen and inhaled through a small mask.

Q37. Answer: (a) A

Jubilee and years are as followed:

	Jubilee	Years
1	Silver	25
2	Ruby	40
3	Golden	50
4	Diamond	60
5	Sapphire	65
6	Platinum	70

diamond jubilee is celebrated in 60 years.

Hence, 65th anniversary: Diamond Jubilee is odd among the given.

Q38. Answer: (d) C

From the given options for option C.

Price of half liter milk = Rs. 11.5

=> Price of 1 litre milk = Rs. (11.5 × 2) = Rs. 23

It satisfies condition 3.

Price of half kg tomato = Rs. 21

=> Price of 1 kg tomato = Rs. 21 × 2 = Rs. 42

It satisfies condition 1.

Price of half kg Grapes = Rs. 43

=> Price of 1 kg grapes = Rs. (43 × 2) = Rs. 86

It satisfies condition 2.

Therefore In shop O she will get all her items.

Q39. Answer: (c) C

Option 3 is correct.

• M.S. Swaminathan an Indian geneticist played a leading role in Green Revolution.

• Green Revolution is referred to the increase in production of food grains (especially wheat and rice) by the introduction of high-yielding variety seeds and modern methods.

• The use of tractors, irrigation facilities, pesticides, and fertilizers became dominant.

• Swaminathan helped in introducing Mexican semidwarf wheat plants to Indian fields and helped to bring about greater acceptance of modern farming methods.

• Yellow Revolution: production of oil

• White Revolution: production of milk

• Black Revolution: production of petroleum

Q40. Answer: (d) A

Sum of the marks = (41 + 39 + 52 + 48 + 54 + 62 + 46 + 52 + 40 + 96 + 42 + 40 + 98 + 60 + 52)

=> 822

Number of students = 15

Therefore Mean of the marks = 822/15 = 54.8

Q41. Answer: (d) A

(-4.6) × (-4.6) ÷ (-4.6 + 0.6)

=> (-4.6) × (-4.6) ÷ (-4)

=> (-4.6) × (1.15)

=> − 5.29

Q42. Answer: (a) C

Nashik is Correct Answer.

• Indian currency notes are printed in Nashik, Maharastra.

• The two mills at Hoshangabad in Madhya Pradesh and Mysore, Karnataka design, produce and supply the paper on which currency is printed to printing presses.

• Once the banknote paper has been embedded with security features, these are sent to the four printing presses and they add additional security features of optically variable ink.

• Two of the currency note printing presses are owned by the Government of India and two are owned by the Reserve Bank, through its wholly-owned subsidiary, the Bharatiya Reserve Bank Note Mudran Ltd.

• The government-owned presses are at Nashik (Western India) and Dewas (Central India).

• The other two presses are at Mysore (Southern India) and Salboni (Eastern India).

• Coins are minted in four mints owned by the Government of India.

• The mints are located at Mumbai, Hyderabad, Calcutta, and Noida.

• The number of currency notes which are to be printed for each denomination is decided on the basis of projections for GDP growth rate, inflation, and electronic transactions. This data is called by 19 regional offices of the RBI.

Q43. Answer: (c) B

Let, cost of cloth per meter be Rs. x

According to the question,

x × 41/2 = 603/4

=> 9x/2 = 243/4

=> x = 243/4 × 2/9 = 27/2 = 131/2

Therefore Cost per meter = Rs .131/2

Q44. Answer: (a) C

Option 1 is correct.

• The number of Galilean moons of Jupiter discovered by Galileo Galilei in January 1610- Four.

• Galileo Galilei was an Italian astronomer and scientist.

• He described the rings of Saturn, the phases of Venus, sunspots, and the rugged lunar surface.

• The four moons discovered by him: Io, Europa, Ganymede, and Callisto.

• The 79th moon of Jupiter was announced in July 2018.

• Jupiter the largest planet in the solar system and it is the most massive planet (more than 300 times the mass of Earth) in our solar system.

Q45. Answer: (b) D

Option 2 is correct.

• Mica is available abundantly in Rajasthan.

• In Rajasthan, Mica is mostly found in- Beaver Ajmer Belt, Bhilwara Belt, Dungarpur-Banswara Belt, Tonk Belt, and Kaunthal Belt.

• In India, muscovite, phlogopite, and biotite are the types of Mica found.

• As per the Indian Bureau of Mines 2017 report, Andhra Pradesh leads with 41% share in the country's total resources of Mica. It is followed by Rajasthan(28%), Odisha (17%), Maharashtra (13%), Bihar (2%).

Q46. Answer: (c) 48

Position of X in the English Alphabets = 24

Position of B in the English Alphabets = 2

Position of E in the English Alphabets = 5

So, BE = position of B + position of E = 2 + 5 = 7

Similarly, RING

Position of R = 18

Position of I = 9

Position of N = 14

Position of G = 7

Thus RING = 18 + 9 + 14 + 7 = 48

Q47. Answer: (a) B

Let, two consecutive odd numbers be (x – 1) and (x + 1)

According to the question,

$(x – 1) \times (x + 1) = 399$

$\Rightarrow x^2 – 1 = 399$

$\Rightarrow x^2 = 400$

$\Rightarrow x = 20$

Therefore Lowest odd number = (20 – 1) = 19

Q48. Answer: (c) C

Option 3 is correct.

• India's longest train run between Dibrugarh - Kanyakumari.

• Vivek Express is the name of the train.

• The running time of 82 hours 45 minutes and there are 56 scheduled stops.

• It passes through eight states of the country.

• It originates in northern Assam and goes all the way to the southern tip of India to Kanyakumari.

• Please note that this train is named after Swami Vivekananda.

• The weekly train schedule was introduced on the occasion of the 150^(th) birth anniversary of Swami Vivekananda.

Q49. Answer: (c) C

The correct answer is Option 3, i.e C.

• The Constitution lays down certain Directive Principles of State Policy, which though not justiciable, are 'fundamental in governance of the country', and it is the duty of the State to apply these principles in making laws.

• Initially, due to the lack of resources and difference in opinion in the Constituent Assembly over the passing of certain Directive Principles, they were made non-justiciable.

• However, time and again, the higher judiciary have called it fundamental in the governance of the country.

• While Fundamental Rights are important for the Political Justice of the Indian citizens, the Directive Principles are important for the Social and Economic Justice of them.

• Hence, from the above paragraph, it can be deduced that Directive principle is liability, which is related to the completion of the state.

Q50. Answer: (a) B

Option 1 is correct.

• The Siberian ibex is large and heavily built goats.

• It is also known as the Altai ibex or Gobi ibex.

• Capra Sibirica is its scientific name.

• They are mostly found in Central Asia.

• Please note that it is considered the longest and heaviest member of the genus Capra.

Q51. Answer: (d) C

Let, the cost price of a chair be Rs. x and Selling price of a chair be Rs. y

According to the question,

20y = 25x

=> y = 5x/4 = 1.25x

We know, Profit percent = (Selling price – Cost price)/Cost price × 100

Therefore Profit percentage = (1.25x – x)/x × 100% = 25%

Q52. Answer: (b) B

Let, cost price of goods be Rs. 100x

=> Marked Price of goods = Rs. (100x + 100x × 20/100) = Rs. 120x

Discount = 5%

=> Selling price of goods = 120x – (120x × 5/100) = 120x – 6x = Rs. 114x

We know, Profit percent = (Selling price – Cost price)/Cost price × 100

Therefore His final profit = (114x – 100x)/100x × 100% = 14%

Q53. Answer: (d) A

Option 4 is correct.

• Swadeshi- Made in India, from materials that have also been produced in India.

• Swadeshi Movement took place between 1905 and 1911.

• It was officially proclaimed as a movement on August 7, 1905, at the Calcutta Town Hall, in Bengal.

• As the Boycott movement was also launched with it, these movements included using goods produced in India and burning British-made goods.

• This movement was decided by Bal Gangadhar Tilak as the British government decided the partition of Bengal.

• This movement was the emphasis on self-reliance or Atmashakti.

• After getting inspired by this, Bengal Chemical Swadeshi Stores, Mohini Mills, and National Tannery, among others were started.

Q54. Answer: (d) B

Option 4 is correct.

Key Points

• Electrons are lost in an oxidation reaction.

• Oxidation simply means a gain of oxygen and an oxidizing agent is a substance that oxidizes something.

• The reduction is the gain of electrons. A reducing agent reduces something in a reaction.

• As when one molecule gets reduced, another molecule gets oxidized. Most of the time, Oxidation and Reduction take place simultaneously and such a reaction is called a redox reaction.

• Redox reaction example- In a reaction between hydrogen and fluorine, hydrogen is oxidized and fluorine is reduced.

Q55. Answer: (c) B

Option 3 is correct.

• The Masai Mara National Reserve is in Kenya.

• This National Reserve is named in the honor of the Maasai people (ancestral inhabitants of the area).

• The reserve hosts over 95 species of mammals and over 570 recorded species of birds.

• The population of lions, leopards, cheetahs, and elephants is exceptional here.

• This country is in East Africa with a coastline on the Indian Ocean.

• Kenya Capital- Nairobi

• Currency-Kenyan shilling

Q56. Answer: (c) A

Given:

Principal, P = Rs. 7500

Number of years, n = 2 years 4 months

Rate of interest, r = 12%

Calculation:

Interest for 1st year = Rs. 7500 × (12/100)

=> Rs. 900

Principal for 2nd year = Rs. (7500 + 900)

=> Rs. 8400

Interest for 2nd year = Rs. 8400 × (12/100)

=> Rs. 1008

Principal for last 4 months = Rs. (8400 + 1008)

=> Rs. 9408

Rate of interest for 4 months = (12/3)%

=> 4%

Interest for last 4 months = Rs. 9408 × (4/100)

=> Rs. 376.32

Total interest = Rs. (900 + 1008 + 376.32)

=> Rs. 2284.32 ≈ Rs. 2284

Therefore The required compound interest is Rs. 2284

Q57. Answer: (b) C

Average marks obtained by the students in Geography = (68 + 65 + 69 + 70)/4 = 272/4 = 68

Average marks obtained by the students in History = (65 + 75 + 70 +65)/4 = 275/4 = 68.75

Q58. Answer: (a) D

Average marks obtained in Science is = (80 + 85 + 88 + 87)/4 = 340/4 = 85

Average marks obtained in Maths is = (75 + 80 + 82 + 78)/4 = 315/4 = 78.75

Therefore Average marks obtained in Science is higher than that of maths by = 85 – 78.75 = 6.25

Q59. Answer: (c) C

Total marks of Shamita in six subject = (75 + 80 + 65 + 68 + 72 + 65) = 425

Total marks of Smita in six subject = (80 + 85 + 75 + 65 + 70 + 70) = 445

Total marks of Shilpa in six subject = (82 + 88 + 70 + 69 + 71 + 70) = 450

Total marks of Sheela in six subject = (78 + 87 + 65 + 70 + 75 + 74) = 449

Therefore Shilpa has the highest total marks.

Q60. Answer: (a) B

m/n = (cos θ + sin θ) / (sec θ + cosec θ)

=> (cos θ + sin θ)/(1/(cos θ) + 1/(sin θ))

=> (cos θ + sin θ)/(sin θ + cos θ)/(cos θ sin θ)

=> sin θ cos θ

YourMockTest.com — Free Study Material

Q61. Answer: (a) Wife

M is the son of N and O is the father of N.

P is the father of M.

Clearly N is the wife of P.

Q62. Answer: (a) C

Option 1 is correct.

• Sepak Takraw is Kick Volleyball.

• Most often, it is played in countries of Southeast Asia. However, it is said to be originated in Malaysia.

• In this game, players touch and handle the ball using only their feet, knee, chest, and head.

• This game is played by using a rattan or synthetic ball.

• The rules are somewhat similar to the traditional volley ball game.

• This game has been part of the Asian Games since the 11^(th) edition in Beijing 1990.

Q63. Answer: (a) B

Suppose, Z will complete the work in = x days

According to the question,

1/36 + 1/60 + 1/x = 1/18

=> 1/x = 1/18 – 1/36 – 1/60

=> 1/x = (10 – 5 – 3)/180

=> 1/x = 1/90

=> x = 90

Therefore Z will take 90 days to complete the work

Q64. Answer: (d) A

Option 4 is correct.

• The legislative and administrative capital of Sri Lanka is Jayawadenepura Kotte whereas Colombo deems the commercial center and Judicial, the largest city of Sri Lanka.

• Currency-Sri Lankan rupee

• President- Anura Kumara Dissanayake

• Prime Minister- Harini Amarasuriya (September 2024)

• Sri Lanka is separated from the Indian subcontinent by the Gulf of Mannar and Palk Strait.

Q65. Answer: (d) C

=> (sin θ)/(1 + cosθ) + (1 + cosθ)/sinθ

=> fracsin²θ + (1 + cos θ)²(1 + cos θ)sin θ

=> fracsin²θ + 1 + 2cos θ + cos²θ (1 + cos θ)sin θ

=> (2 + 2cosθ)/(sin θ (1 + cos θ))

=> 2/sin θ

Q66. Answer: (a) B

Option 1 is correct.

• The Panchatantra fables are thought to be composed by Vishnu Sharma.

• It is believed that Vishnu Sharma composed these fables in Kashmir in approximately 200 B.C.

• This ancient Indian collection includes stories of animals and teaches morals of leading a good and selfless life by the conversations between animals.

• The fables are originally written in Sanskrit.

• Some Panchatantra stories are common with Buddhist Jataka tales.

• These tales have been translated into many languages.

Q67. Answer: (b) C

Option 2 is correct.

• Operation Shakti was the code name of the nuclear tests conducted by India in Pokhran in 1998.

• Pokhran-II tests, initiated on 11 May 1998, consisted of five detonations.

YourMockTest.com — Free Study Material

• The first detonation was a fusion bomb and the remaining four were detonations of fission bombs. The tests were assigned the code- Operation Shakti.
• The five nuclear bombs were designated Shakti-I, Shakti-II, Shakti-III, Shakti-IV, and Shakti-V.
• Please note that four of the devices were weapons-grade plutonium and the other one was Thorium/U-233.
• The development and test teams were led by Bhabha Atomic Research Center and DRDO.

Q68. Answer: (d) Both A and R are false

Given assertion (A): Penguins are birds, found in the hottest regions of the earth.
Explanation: Penguins are birds but they are found in the coldest regions of the earth so the given assertion is false.
Given Reason (R): Birds in hot regions do not have wings.
Explanation: The above reason is not true. Birds in hot regions can have wings.
Hence both A and R are false.

Q69. Answer: (c) D

Option 3 is correct.
• Anjolie Ela Menon is an Indian Female Artist.
• She is well known for her work with a medium- oil on masonite. She is also a muralist.
• Her work mostly surrounds religious themes, portraits, and nudes incorporating a vibrant color palette.
• Her work named "Yatra" was acquired by the Asian Art Museum of San Francisco, California in 2006.
• She is a recipient of Padma Shree in 2000.

Q70. Answer: (c) B

Suppose, the one's digit = y and ten's digit = x
=> The number = 10x + y
According to the question,
x + y = 9 ----(i)
Also,
(10x + y) + 27 = 10y + x
=> 9x – 9y = − 27
=> x – y = − 3 ----(ii)
From (i) and (ii) we get,
2x = 6
=> x = 3
Now, put value of x in (i),
x + y = 9
=> 3 + y = 9
=> y = 6
Therefore The number = 10 × 3 + 6 = 36

Q71. Answer: (c) 43

The given series is,
13 (+ 1) 14 (+ 4) 18 (+ 9) 27 (+ 16) 43 (+ 25) 68….
Above series is made by adding the squares of numbers from 1, 2, 3, 4 …….
Hence 43 is the missing number.

Q72. Answer: (a) Aunt

Kitty's mother's brother is her/his maternal uncle.
Kitty's maternal uncle's wife = Aunt
So, their daughters are the nieces of the Kitty's mother and Kitty's mother is their Aunt.
Uthara is the one of the daughter of Kitty's maternal Uncle. So Kitty's mother is the aunt of her sister.

Q73. Answer: (d) D

Let, the other two angle be 9x and 16x respectively.
According to the problem,

55° + 9x + 16x =180° [as sum of all angles of triangle is 180°]

=> 25x = 180 – 55°

=> x = 125/25 = 5°

Therefore The angles are (9 × 5°) = 45° and (16 × 5°) = 80° respectively.

Alternate solution

We can find correct answer of this question by using options.

Sum of all angles must be 180°.

Hence, 55° + 45° + 80° = 180° (only option D satisfies)

Therefore Option D is correct answer.

Q74. Answer: (b) D

Option 2 is correct.

• Atul Dodiya made a series of paintings on Mahatma Gandhi.

• He is considered one of the finest Indian artists of the generation.

• He is known for his Hyper-realist depictions of middle-class Indian life, Series of watercolor paintings depicting marginalized and poor sections of society, for example, a plumber, a scribe, or a painter, etc.

• In 1991, he reconstructed images from a forgotten biography of Mahatma Gandhi. He used watercolors to paint numerous historic events of Gandhi's life.

• He also installed "Broken Branches" made in 2002 inspired by the philosophy of Mahatma Gandhi in Venice Biennale 2019 (art exhibition).

Q75. Answer: (d) B

Given:

Total income = Rs. 360000

The income of 2nd week making angle on the pie chart = 120°

Concept used:

The angle made in the centre of the circle is 360° or by one complete rotation is 360°

Here, Angle made at the centre is equal to Rs 360000

Calculations:

Angle made at the centre is equal to Rs 360000

=> 360° = 360000

=> 1° = 360000/360°

=> 120° = 120° × (360000/360°)

=> 120000

Therefore The income of his 2nd week is Rs 120,000

Q76. Answer: (c) CHGXX

H – 1 = G

O – 1 = N

U + 6 = A

S + 6 = Y

E – 1 = D

S – 1 = R

So the pattern here is -1, -1, + 6, + 6 ...repeat.

Same pattern will be applied in DIARY

D – 1 = C

I – 1 = H

A + 6 = G

R + 6 = X

Y – 1 = X

Hence the correct option is CHGXX.

YourMockTest.com — Free Study Material

Q77. Answer: (c) A

Option 3 is correct.

• "Satyameva Jayate" means "Truth alone triumphs".

• It is a part of a mantra from Mundaka Upanishad which is an ancient Hindu scripture.

• This phrase was adopted as the national motto of India on 26 January 1950 following the independence of India.

• This phrase is written in the Devanagari script at the base of the Lion Capital of Ashoka.

• Please note that this phrase along with Indian national emblem is inscribed on one side of all Indian currencies.

• Pandit Madan Mohan Malaviya is accredited to popularise this slogan.

Q78. Answer: (a) C

Country	Capital	Currency	President
Mauritius	Port Louis	Mauritian rupee	Dharam Gokhool
Maldives	Male	Maldivian rufiyaa	Dr Mohamed Muizzu
Malaysia	Kaula Lampur	Malaysian ringgit	Anwar Ibrahim

Q79. Answer: (c) Anger : Wrath

Forward is antonym to Backward.

Hope is antonym to despair.

Love is antonym to Hate.

Anger is synonym to Wrath.

Light is antonym to Dark.

So, “Anger : Wrath” is not having similar relationship as that of other pairs.

Q80. Answer: (a) Only conclusion I follows.

Statement:

Religions teach the guiding principles for leading one’s life.

Conclusions:

I. Religion is a way of life.

(The above conclusion logically follows the statement. Religion is an institution to express belief in a divine power)

II. Religion is a teacher.

(Here teacher refers to a living person and religion is not a person, so it is false.)

From the given conclusion only conclusion I is true, so option A is correct.

Q81. Answer: (c) Potassium

H2O : Hydrogen

Here H2O represents Dihydrogen Monoxide

So it consists of Hydrogen and Oxygen

Similarly, KOH represents Potassium Hydroxide

So it consists of Potassium, Hydrogen and Oxygen

Hence KOH is related to Potassium.

Q82. Answer: (d) C

9/13 ÷ 18/26 ÷ 90/52

=> 9/13 × 26/18 ÷ 90/52

=> 1 ÷ 90/52

=> 52/90

=> 26/45

Q83. Answer: (d) D

Option 4 is correct.

CONCEPT:

• Temperature: It is the measure of the degree of hotness and coldness of a body.

• The SI unit of temperature is Kelvin (K).

• The various temperature scales commonly used are Celsius (C), Kelvin (K), Fahrenheit (F), and Rankine (Ra).

• Celsius: It has 100 degrees between the freezing and boiling points of water.

• Here 0° represents the freezing point and 100° represents the boiling point. In many countries, celsius is used to communicate day to day temperatures.

• Fahrenheit: The Fahrenheit scale was proposed by physicist Daniel Gabriel Fahrenheit in 1724.

• This scale is primarily used in the United States and some Caribbean countries to communicate day to day temperatures.

The temperature T in degrees Fahrenheit (°F) is equal to the temperature T in degrees Celsius (°C) times 9/5 plus 32:

°F=9/5°C+32

CALCULATION:

Given that:

Temperature (T) = 0 °C

Use the above-given formula:

°F=9/5×0+32=0+32=32°F

EXTRA POINTS:

To convert Celcius into Kelvin scale:

K = C + 273.15

• The temperature which shows the same measurement in Celcius and Fahrenheit scale = -40.

• The temperature which shows the same measurement in Kelvin and Fahrenheit scale = 574.25.

Q84. Answer: (d) MROEN

The given word is,

Similarly,

Hence ZEBRA is coded as MROEN.

Q85. Answer: (b) A

Option 2 is correct.

• 60 to 100 beats/min is the normal resting heart rate range for adults.

• Anyone who has heart rate at rest on the lower side means that the individual has efficient heart function and better cardiovascular fitness.

• If an athlete is well trained, he may have a normal resting heart rate closer to 40 beats to 60 beats per minute.

• According to the American Heart Association, For children ages 6 to 15, the normal resting heart rate is between 70 and 100 bpm.

Q86. Answer: (b) Daughter

As given Q's father is husband of B's daughter. So, B is the maternal grandfather of Q. C is the sister of Q and daughter of P (P will either be father or mother of Q).

P is the maternal aunt of D, clearly means that P is female, So P is the mother of Q and daughter of B.

Q87. Answer: (d) B

Option 4 is correct.

• Junko Tabei was the first woman to reach the summit of Mt. Everest.

• She was a Japanese mountaineer. She also became the first woman to ascend all the Seven Summits (highest mountains of seven continents) by climbing the highest peak on every continent.

• She was also an environmental activist. She had organized several environmental projects to clean up rubbish/junk left behind by climbers on Mt. Everest.

• She also led annual climbs-up on Mount Fuji for youth affected by the Great East Japan Earthquake.

• Bachendri Pal was the first Indian woman to reach the summit of Mount Everest.

• Premlata Agrawal is the first Indian woman to scale the Seven Summits.

• Arunima Sinha is the world's first female amputee to climb Mount Everest and other peaks.

Link: https://bit.ly/3mpJKaT

Q88. Answer: (d) D

We know, M1D1/W1 = M2D2/W2

Let the number of windows required be x

=> (6 × 16)/96 = (8 × 4)/x

=> x = 8 × 4 = 32

Therefore In 4 days 8 carpenters can make = 32 windows

Q89. Answer: (d) C

Number of cassettes produced in January = 1858509

=> Number of cassettes produced in February = 1858509 + 7623 = 1866132

=> Number of cassettes produced in March = 1866132 – 25838 = 1840294

Therefore Total production = (1858509 + 1866132 + 1840294) = 5564935

Q90. Answer: (a) B

Option 1 is correct.

• In India, Makar Sakranti is the festival of crop harvesting.

• Makar Sakranti is a Hindu festival. It is observed each year in the lunar month of Magha. Magha month corresponds to January as per the Gregorian calendar.

• It either falls on 14 or 15 January.

• It also marks the termination of the Winter season

• Many people pray to the sun, lit bonfires, fly kite, donate to charity, etc on this day.

• It is said that the northward movement of the sun begins from this festival.

• Please note that option 4th might seem correct because kite flying is involved in Makar Sakranti. But it is primarily a festival of harvesting of crop and deems as a traditional time to start harvesting of food grains.

Q91. Answer: (b) Only conclusion II follows.

Given statements :

A. Confusion causes mental tension. (Confusion is the reason of mental tension)

B. Mental tension causes anxiety. (Mental tension is the reason of anxiety)

Conclusions:

I. Anxiety is a disease.

(The above statement does not follow because there is nothing mentioned about the disease in the statement)

II. Confusion leads to anxiety.

(Confusion is the cause of mental tension, which causes anxiety so confusion leads anxiety so this conclusion is logically correct).

Q92. Answer: (a) 5

It is given that,

Mango, lemon and melon are fruits → 4 3 9 5 1 6

Mango and melon are yellow → 0 4 5 1 6

Melon is green → 8 5 7

Here Melon is common in all three sentences and 5 is common in all three coded numbers,

So 5 is the code for Melon.

Q93. Answer: (d) EMU

A + 1 = B, B + 1 = C, C + 1 = D, D + 1 = E

I + 1 = J, J + 1 = K, K + 1 = L, L + 1 = M

Q + 1 = R, R + 1 = S, S + 1 = T, T + 1 = U

Hence the next term is EMU.

Q94. Answer: (a) A

Distance covered by Sanjay in 42 minutes = (7 × 42 × 60) = 17640 m

Distance covered by Jacob in 42 minutes = (5 × 42 × 60) = 12600 m

Therefore Distance between them = (17640 + 12600) = 30240 m = 30.24 km

Q95. Answer: (d) D

Option 4 is correct.

• Afghanistan was decided to be added as a 164th member of the World Trade Organisation in 2015.

• WTO members officially approved the membership at the 10th WTO Ministerial Conference in Nairobi, Kenya, on December 17,

2015.

• Afghanistan's First Deputy Chief Executive Mohammad Khan Rahmani co-signed the Protocol of Accession with DG Azevêdo.

• Afghanistan had applied for the membership in 2004 was admitted as a member after 11 years of negotiations.

• Liberia became the 163rd member on 14 July 2016, and Afghanistan became the 164th member on 29 July 2016.

• World Trade Organisation operates as a global system of trade rules. it also acts as a forum for negotiating trade agreements and settles trade disputes between its members.

• WTO Members- 164

• Headquarters- Geneva, Switzerland

• Director-General- Roberto Azevêdo

Q96. Answer: (d) B

We know, CI = $P(1 + R/100)^n - 1$ and SI = $(P \times R \times n)/100$

Compound interest earned = $5000 \times (1 + 8/100)^2 - 5000 = 5000 \times 1.1664 - 5000$ = Rs. 832

Simple interest earned = $5000 \times 2 \times 8/100 = 80000/100$ = Rs. 800

Therefore Required difference = Rs. (832 – 800) = Rs. 32

Q97. Answer: (a) B

=> 12 – [26 – {2 + 5 × (6 – 3)}]

=> 12 – [26 – {2 + 5 × 3}]

=> 12 – [26 – 17]

=> 12 – 9

=> 3

Q98. Answer: (b) C

Let, number of bottles required be x

According to the question,

280 × x = 42 × 1000 [Because 1 litre = 1000 ml]

=> x = 42000/280

=> x = 150

Therefore 150 bottles will be required

Q99. Answer: (c) A

Let, the numbers be x and (x + 2)

We know, HCF of two consecutive even numbers = 2

Also, LCM × HCF = Product of numbers

According to the question,

$x \times (x + 2) = 144 \times 2$

=> $x^2 + 2x - 288 = 0$

=> $x^2 + 18x - 16x - 288 = 0$

=> $x(x + 18) - 16(x + 18) = 0$

=> $(x + 18)(x - 16) = 0$

=> x = - 18 or 16

Therefore The numbers are 16 and (16 + 2) = 18

Q100. Answer: (b) B

Option 2 is correct.

• The Dibru-Saikhowa, Nameri, and Orang National Park are all found in Assam.

• Dibru-Saikhowa was designated as a Biosphere Reserve in July 1997.

• It is known for rare white-winged wood ducks as well as feral horses. It is also home to many endangered species.

• Nameri National Park is known for being a bird watchers paradise.

• Common Merganser, King Vulture, Long-Billed Ring Plover, Khallej Pheasant, Hill Myna can be easily seen here.

• Orang National Park is known for its Rhino and Tiger population.

• The forest was declared a Wildlife Sanctuary in 1985 and later as a National Park in 1999. It is sometimes called as Mini Kaziranga.

YourMockTest.com – Free Study Material

- National Parks and Sanctuaries in Andhra Pradesh- Sri Venkateshwara National Park, Papikondalu National Park, Nagarjunasagar Wildlife Sanctuary, etc
- National Parks and Sanctuaries in Arunachal Pradesh- Namdapha National Park, Pakhui Wildlife Sanctuary, Kane Wildlife Sanctuary, Eaglenest Wildlife Sanctuary, etc.
- National Park and Sanctuaries in Uttrakhand- Nanda Devi Biosphere Reserve, Gangotri National Park, Rajaji National Park, etc.

More previous year papers and mock tests: **www.yourmocktest.com/pyq**

YourMockTest.com — Free Study Material