RRB NTPC CBT-I Official Paper (Held On: 5 Jan 2021 Shift 2) (Previous Year Paper)

RRB NTPC • 2021 • 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-cbt-i-official-paper-held-on-5-jan-2021-shift-2-previous…

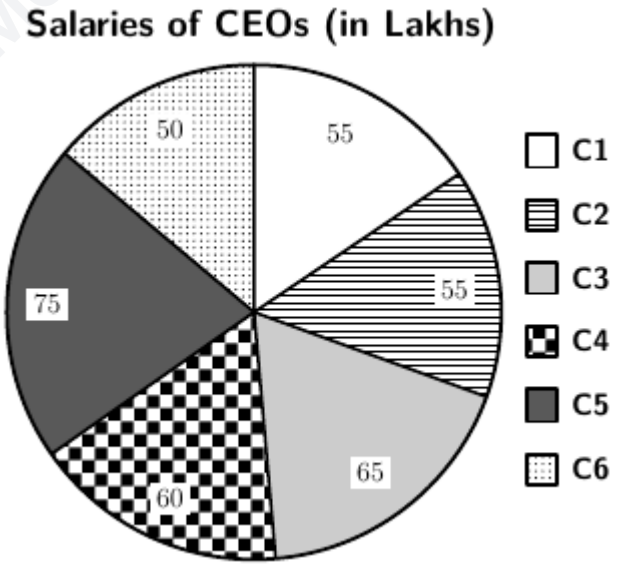
Scan the QR code or click the link to open it.

Q1. Find the next word from among the given options which will give more points in the scrabble game (Marks of a letter are its position number in the English alphabet).

A, AT, BAT, ?

(a) BAIT
(b) BATE
(c) BATH
(d) BATS

Q2. The given diagram depicts the distribution of salaries per annum (in lakh) of the CEOs of six MNCs (C1, C2, C3, C4, C5 and C6).



What is the difference of the salary drawn (in percentage) between the lowest and highest paid CEO?

(a) 25
(b) 75
(c) 50
(d) 20

Q3. The sides of certain triangles are given below. Identify the one which is a right angled triangle.

(a) a = 4 cm, b = 5 cm, c = 7 cm
(b) a = 5 cm, b = 5 cm, c = 6 cm
(c) a = 4 cm, b = 5 cm, c = 6 cm
(d) a = 7 cm, b = 24 cm, c = 25 cm

Q4. Which of the following kings convened the fourth Buddhist Council in Kashmir?

(a) Chandragupta Maurya
(b) Bimbisara
(c) Kanishka
(d) Ajatashatru

Q5. Which of the following is an antivirus software?

(a) XML
(b) Microsoft
(c) Norton
(d) Google

Q6. If 1/(5√2-7)=a√2+b, then the value of a and b are:

(a) 5, 7
(b) -7, 5
(c) 5, 0-7
(d) 7, 5

Q7. Where was the three Days World Sustainable Development Summit, 2019 organized?

(a) Hanoi, Vietnam
(b) Port Moresby, Papua New Guinea
(c) Kathmandu, Nepal
(d) New Delhi, India

Q8. The cost of 10 books is Rs. 560. What is the cost of 56 such books?

(a) Rs. 1,056
(b) Rs. 2,136
(c) Rs. 3,136
(d) Rs. 1,000

Q9. Where are the Elephanta caves situated?

(a) Havelock Island
(b) Gharapuri Island
(c) Majuli Island
(d) Munroe Island

Q10. In which city was the 11^(th) BRICS Summit held in 2019?

(a) London
(b) Tokyo
(c) Brasilia
(d) New York

Q11. Which of the following is the most prominent cold winter desert?

(a) Sahara
(b) Patagonian
(c) Arctic
(d) Arabian

Q12. The perimeters of two similar triangles ΔABC and ΔPQR are 36 cm and 24 cm respectively. If PQ = 10 cm, then what is the measure of AB?

(a) 200/3 cm
(b) 15 cm
(c) 10√6/3 cm
(d) 20/3 cm

YourMockTest.com — Free Study Material

Q13. The first passenger railway line was opened between Bombay and Thane in:

(a) 1858
(b) 1854
(c) 1853
(d) 1857

Q14. Name the minister who resigned during the India China war in 1962?

(a) Morarji Desai
(b) Lal Bahadur Shastri
(c) V. K. Krishna Menon
(d) Sardar Patel

Q15. The HCF of two numbers is 15 and their LCM is 225. If one of the numbers is 45, then what is the other number?

(a) (15× 225)/45
(b) (15× 45)/225
(c) 22515
(d) 225/45

Q16. What helps in food digestion?

(a) Carbon
(b) Helium
(c) Oxygen
(d) Saliva

Q17. Government of India Act, 1935 introduced:

(a) Provincial autonomy
(b) Self-autonomy
(c) Union territories
(d) Dyrachy

Q18. If sin 2A = 2 sin A, then A =?

(a) 0°
(b) 60°
(c) 30°
(d) 90°

Q19. In which of the following cases is ΔABC similar to ΔPQR?

(a) Sides: AB = 2.5 cm, BC = 4.5 cm, CA = 3.5 cm, PQ = 5 cm, QR = 9 cm, RP = 7 cm
(b) Angles: A = 40°, B = 60°, C = 80°, P = 40°, Q = 20°, R = 120°
(c) Sides: AB = 3 cm, BC = 7.5 cm, CA = 5 cm, PQ = 4.5 cm, QR = 7.5 cm, RP = 6 cm
(d) Angles: A = 50°, B = 70°, C = 60°, P = 50°, Q = 60°, R = 70°

Q20. Which launch vehicle was used by Indian Space Research Organisation (ISRO) for its lunar exploration mission, Chandrayaan-2?

(a) GSLV MK-III
(b) ASLV-D 4
(c) PSLV-C 21
(d) PSLV-D 2

Q21. In India, commercial banks have the highest share in the disbursement of credit to _____.

(a) Moneylenders
(b) PSUs
(c) Agriculture
(d) Microfinance

YourMockTest.com — Free Study Material

Q22. The sum of the class marks of the classes 90-120 and 120-150 is:

(a) 210
(b) 170
(c) 220
(d) 240

Q23. What is the name of the satellite launched by ISRO which gives alert messages to fishermen regarding bad weather and high waves and cautions them when they approach international maritime boundary line?

(a) IRNSS-1I
(b) IRNSS-1
(c) IRNSS
(d) IRNSS-10

Q24. As per report of the ministry of Statistics and Programme Implementation released in Jan, 2020, for FY 2018-19, which of the following states of India has the highest per capita income among all Indian states and union territories?

(a) Kerala
(b) Punjab
(c) Haryana
(d) Goa

Q25. Select the option that is related to the third term in the same way as the second term is related to the first term.

Map : Location :: Compass : ?

(a) Magnet
(b) Radar
(c) Tourist
(d) Direction

Q26. 35 people could complete a work in 24 days. But after they worked together for 6 days, their employer wanted that the work should be completed in a total of 16 days. How many more workers need to be employed to meet the deadline?

(a) 24
(b) 20
(c) 28
(d) 32

Q27. While going from Mumbai to Pune by car, I realized that one of the tyres has two punctures. On the basis of my previous experience, I believed that the first puncture alone would have made the tyre flat in 9 minutes and the second would have done it in 6 minutes. If air leaks out at a constant rate, how long will it take both the punctures together to make the tyre flat?

(a) 33/5 mins
(b) 34/5 mins
(c) 32/5 mins
(d) 31/5 mins

Q28. Where was the 5th India Nuclear New Build Congress conference organised in May 2019?

(a) Delhi
(b) Mumbai
(c) Bengaluru
(d) Kolkata

Q29. What is the full form of ADSL in the context of telephony?

(a) Asymmetrical Digital Subscriber Line
(b) Asymmetrical Digital Software Line
(c) Aligned Digital Software Line
(d) Aligned Digital Subscriber Line

YourMockTest.com — Free Study Material

Q30. What fraction of the numbers from 2 to 12 are composite numbers?

(a) 1/11
(b) 10/11
(c) 6/11
(d) 5/11

Q31. A + 0 = 0 + A = A, where A is a real number is true because of:

(a) the commutative property of addition
(b) the associative property of addition
(c) the inverse property of addition
(d) the additive property of zero

Q32. Which of the given options best classifies the following items:

Altimeter, Barometer, Dynamometer, Thermometer

(a) Heating equipment
(b) Measuring instruments
(c) Navigation equipment
(d) Weighing instruments

Q33. Study the given pattern carefully and select the number from among the given options that can replace the question mark (?) in it.

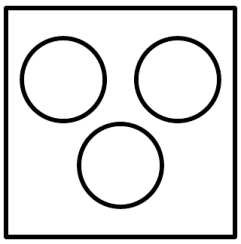
30	**42**	**56**
20	30	?
12	14	16

(a) 50
(b) 42
(c) 40
(d) 54

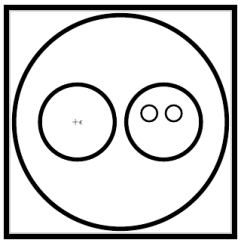
Q34. Select the Venn diagram that best represents the relationship between the following classes.

Sportspersons, Shooters, Swimmers

(a)

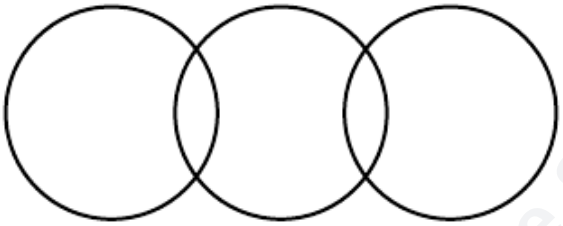


(b)

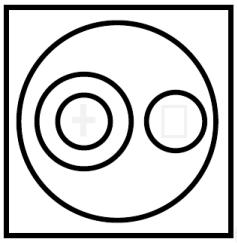


YourMockTest.com — Free Study Material

(c)



(d)



Q35. $8m^3 - n^3$ is equal to:

(a) $(2m - n)(4m^2 - 2mn + n^2)$
(b) $(2m - n)(4m^2 - 4mn + n^2)$
(c) $(2m - n)(4m^2 + 4mn + n^2)$
(d) $(2m - n)(4m^2 + 2mn + n^2)$

Q36. Which of the following is the main tissue that transports water in a plant from its roots to its leaves?

(a) Collenchyma
(b) Parenchyma
(c) Phloem
(d) Xylem

Q37. If 35% of x is 140, then what is the value of x?

(a) 450
(b) 400
(c) 335
(d) 300

Q38. 'Garibi hatao' was the slogan of which political leader?

(a) Morarji Desai
(b) K. Kamraj
(c) Karpoori Thakur
(d) Indira Gandhi

Q39. The Rate constant of a reaction doubles with a _____ rise in temperature.

(a) 10 degrees
(b) 40 degrees
(c) 30 degrees
(d) 20 degrees

Q40. In which country is the headquarters of Asian Development Bank (ADB) situated?

(a) Philippines
(b) South Korea
(c) China
(d) Japan

YourMockTest.com — Free Study Material

Q41. Famous 'Sangai Festival' is an annual cultural festival organized by which state of North-East India?

(a) Manipur
(b) Meghalaya
(c) Tripura
(d) Nagaland

Q42. If the radius of a sphere is doubled, then what will be the ratio of the volume of the new sphere to that of the original sphere?

(a) 1 : 8
(b) 8 : 1
(c) 1 : 2
(d) 2 : 1

Q43. Simplify the following:

72 - 52 + 32 ÷ 2 × 32 ÷ 8

(a) 80
(b) 84
(c) 78
(d) 48

Q44. Who led the railway strike in 1974?

(a) George Fernandes
(b) J. P. Narayan
(c) S. P. Mukherjee
(d) Morarji Desai

Q45. The present population of a town is 50,000. If the population of the town increased by 4% annually, then what will be the population after 2 years?

(a) 54,840
(b) 58,400
(c) 54,280
(d) 54,080

Q46. Amar Jeet Singh can complete a piece of work in 5 days. With the help of his son he can complete it in 3 days. In how many days can the son independently complete the work?

(a) 51/2
(b) 71/2
(c) 61/2
(d) 41/2

Q47. Select the number from among the given options that can replace the question mark (?) in the following series.

111, 90, 71, 54, ?

(a) 41
(b) 49
(c) 50
(d) 39

Q48. Five bells commence tolling together and toll at intervals of 2, 4, 6, 8, 10 seconds respectively. In 30 minutes, how many times do they toll together?

(a) 16
(b) 15
(c) 14
(d) 18

YourMockTest.com — Free Study Material

Q49. A cylinder and a cone are of the same base radius and the same height. Find the ratio of the volume of the cylinder to that of the cone.

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

Q50. Which type of soil covers most of the Deccan Plateau?

(a) Alluvial soil
(b) Red soil
(c) Yellow soil
(d) Black soil

Q51. A tourist wanted to see the planetarium in a city. He walked from the railway station in the east direction and arrived at a pond. He turned left and then at the second corner of the pond, he turned right. Soon he reached another corner of the pond. He turned left and arrived at the planetarium. In what direction was the railway station situated with respect to the planetarium?

(a) North-east
(b) South-east
(c) South-west
(d) North-west

Q52. Read the given statements and conclusions carefully. Assuming that the information given in the statements is true, even if it appears to be at variance with commonly known facts, decide which of the given conclusions logically follows from the statements.

Statements:

1. All engineers are graduates.

2. All graduates are successful.

Conclusions:

I. All successful are graduates.

II. All engineers are successful.

(a) Only II
(b) Both I and II
(c) Only I
(d) Either I or II

Q53. Find the value of 0.4 +404/1000

(a) 804
(b) 0.804
(c) 80.4
(d) 0.0804

Q54. Two walls of equal height are on either side of a road, which is 100 m wide. At a point on the road two stairs are along the two walls in such a way that they indicate the two angles of elevation from that point at 60° and 30°. The length of the longer stair is:

(a) 50 m
(b) 50√3/3 m
(c) 50√3 m
(d) 75 m

Q55. According to the Ancient Monuments and Archaeological Sites and Remains Act 1958, any structure, sculpture, inscription, etc., which are in existence for no less than _____ years is termed as ancient.

(a) 150
(b) 50
(c) 100

YourMockTest.com — Free Study Material

(d) 200

Q56. Which is the state that leads in the list of monuments of national importance in South India declared by Archaeological Survey of India (ASI)?

(a) Karnataka
(b) Andhra Pradesh
(c) Tamil Nadu
(d) Kerala

Q57. What conclusion can be drawn from the premises 'All teachers are hardworking persons' and 'Most hardworking persons are woman'?

(a) No teacher is a woman
(b) All teachers are women
(c) All women are hardworking persons
(d) Some women are hardworking persons

Q58. The Coromandel Coast is home to the following two states:

(a) Punjab and NCR
(b) Tamil Nadu and Andhra Pradesh
(c) Maharashtra and Gujarat
(d) West Bengal and Jharkhand

Q59. Select the letter-cluster from among the given options that can replace the question mark (?) in the following series.

ABC, EFG, IJK, OPQ, ?

(a) TUV
(b) XYZ
(c) UVW
(d) RST

Q60. The value of 0.2323...+0.22... is:

(a) 0.4555....
(b) 0.45
(c) 0.454545....
(d) 0.434343....

Q61. The United Nations General Assembly commemorates 21^(st) June as:

(a) International Day of Yoga
(b) International Education Day
(c) International Health Day
(d) International Babies Day

Q62. Who among the following freedom fighters of India is known as 'Frontier Gandhi'?

(a) Maulana Abul Kalam Azad
(b) Khan Abdul Ghaffar Khan
(c) Badruddin Tyabji
(d) Mukhtar Ahmed Ansari

Q63. Select the word-pair from the given options where the first word is related to the second word in the same way as the word-pair given below;

Butterfly : Insect :: ?

(a) Mammal : Man
(b) Rodent : Rat
(c) Furniture : Chair
(d) Ostrich : Bird

YourMockTest.com — Free Study Material

Q64. Name the process by which a single cell divides itself into 2 halves?

(a) Dual fission
(b) Binary fission
(c) Singular fission
(d) Multiple fission

Q65. How many atoms of oxygen are present in one molecule of ozone?

(a) 3
(b) 1
(c) 4
(d) 2

Q66. Which kingdom was called "a cherry" by Governor General Lord Dalhousie?

(a) Kingdom of Vijayanagara
(b) Kingdom of Jhansi
(c) Kingdom of Gwalior
(d) Kingdom of Awadh

Q67. 'A camel is called the ship of the desert' is drawn from the assumption:

(a) Camels have humps.
(b) Camels are used for transportation in deserts.
(c) Camels are mammals.
(d) The shape of a camel is like a ship.

Q68. 4% more is gained by selling a table for Rs. 1,800 than by selling it for Rs. 1,750. What is its cost price?

(a) Rs. 1,250
(b) Rs. 12,500
(c) Rs. 125
(d) Rs. 50

Q69. The area of a rhombus is 96 cm^2 and one of its diagonals is 16 cm. What is the length of its side?

(a) 15 cm
(b) 12 cm
(c) 10 cm
(d) 18 cm

Q70. Which of the following is correct, when a formula has its symbolic meaning
(A - Amount, P - Principal, SI - Simple Interest)?

(a) P - A = 2SI
(b) P = A + SI
(c) A = P + SI
(d) A + P = SI

Q71. The Pongal Bird Count is an initiative of which of the following states?

(a) Madhya Pradesh
(b) Rajasthan
(c) Andhra Pradesh
(d) Tamil Nadu

Q72. Which of the following is the external oversight body of the United Nations system?

(a) Joint Unit
(b) Joint Environment Unit
(c) Joint Inspection Unit
(d) Joint Review Unit

YourMockTest.com — Free Study Material

Q73. Which among the following hills has Indian desert to its western margin?

(a) Aravali
(b) Kanchenjunga
(c) Palani
(d) Dhupgarh

Q74. Simplify the following:

{((7/2÷ 5/2 × 3/2))/((7/2÷ (5/2 × 3/2)))}÷ 5.25

(a) 3/8
(b) 3/7
(c) 3/5
(d) 1/2

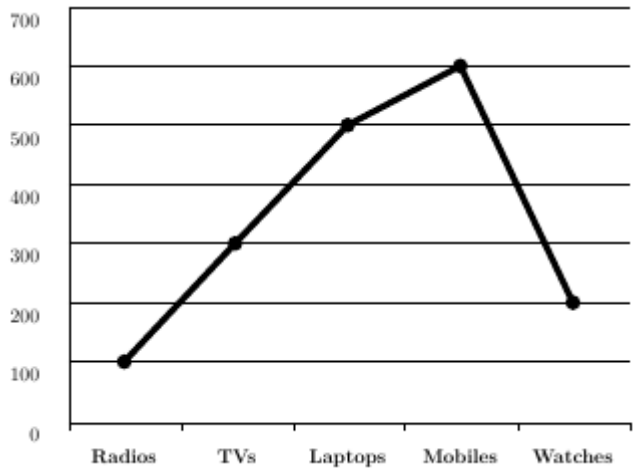
Q75. Which of the following is needed to access the Internet?

(a) Unique IP Address
(b) TV
(c) Email
(d) Hacker

Q76. What was the rank of India in the list of world's most competitive economies in the IMD World Competitiveness Rankings 2019?

(a) 43^(rd)
(b) 51^(st)
(c) 50^(th)
(d) 49^(th)

Q77. From the given graph, find the difference in the number of laptops and mobiles sold in comparison to the number of other products sold by a shop dealing in electronic items in the month of March 2019.



(a) 700
(b) 1100
(c) 500
(d) 600

Q78. x and y vary directly with each other. When x is 10, y is 15. Which of the following is NOT a pair of corresponding values of x and y?

(a) 15, 20
(b) 8, 12
(c) 25, 37.5
(d) 2, 3

YourMockTest.com — Free Study Material

Q79. Find the value of $[\{(2)^2\}^2]^2$

(a) 2^8
(b) 2^(16)
(c) 2^{32}
(d) 2^4

Q80. In which river is India's largest river island, Majuli, located?

(a) Brahmaputra
(b) Beas
(c) Narmada
(d) Indus

Q81. If the position of a letter in the English alphabet is the value of the letter, then what will be the total of all the letters in the word EXAGGERATION?

(a) 132
(b) 134
(c) 136
(d) 126

Q82. Which is the largest Indian public sector bank?

(a) Bank of India
(b) State Bank of India
(c) Bank of Baroda
(d) Central Bank of India

Q83. When was the Goods and Services Tax (GST) implemented in India?

(a) 1^(st)April 2018
(b) 1^(st)July 2018
(c) 1^(st)July 2017
(d) 1^(st)April 2017

Q84. Who among the following did NOT attend the first Round Table Conference in London?

(a) Indian Princes
(b) Hindu Mahasabha
(c) Indian National Congress
(d) Muslim League

Q85. $(\sin A + \cos A)^2 - 2\sin A \cos A$ is equal to:

(a) $\sin^2 A - \cos^2 A$
(b) 2
(c) 1
(d) 0

Q86. In a certain code language, FRAGRANCE is written as ESZHQBMDD. How will EXCELLENCE be written as in that language?

(a) DYBFKMDPBF
(b) DYBFKMDOBF
(c) DYBYMKDOBF
(d) DYBFKMDQBF

Q87. Manoj is the husband of Sapna, whose mother is Neelam. Neelam's grandson is Aditya, who is the brother of Shefali. Shefali is the daughter of Vijay who is the brother of Manoj's wife. How is Sapna related to Shefali?

(a) Maternal Aunt
(b) Daughter
(c) Paternal Aunt

YourMockTest.com — Free Study Material

(d) Sister

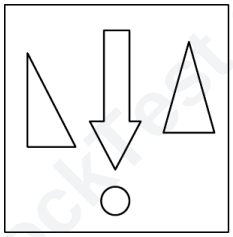
Q88. If C means cube, A means '+', B means '-', D means '×' and E means Divide, then solve the following {((3A6)D(6B3))E((6B4)A(3B2))}C=?

(a) 9
(b) 27
(c) 729
(d) 927

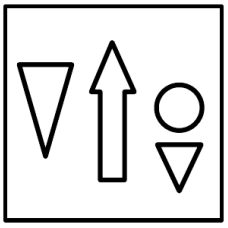
Q89. Study the given pattern carefully and select the option that can replace the question mark (?) in it.



(a)



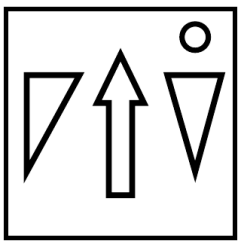
(b)



(c)



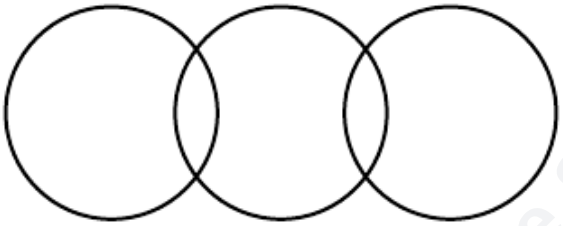
(d)



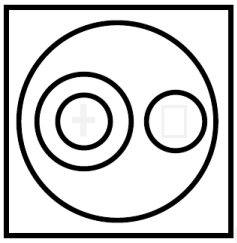
Q90. Select the Venn diagram that best represents the relationship between the following classes.
Cardboard boxes, Glass tumblers, Wooden stools

YourMockTest.com Free Study Material

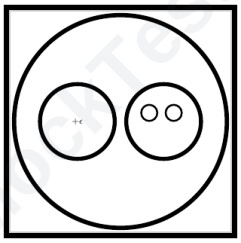
(a)



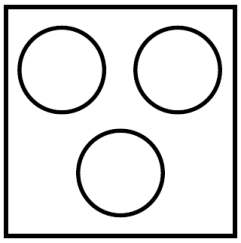
(b)



(c)



(d)



Q91. If the given sequence QwE@rTy;MnB#vCx/DfG*hJk is reversed, then what will be the letter that precedes the letter D?

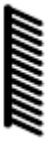
(a) G
(b) f
(c) x
(d) c

Q92. Select the option that is related to the third term in the same way as the second term is related to the first term.

Book : Author :: Movie :

(a) Audience
(b) Director
(c) Actress
(d) Actor

Q93. Which of the following is the mirror image of INSINUATION?

INSINUATION 

(a)

NOTAUANIS

(b)

NOTLAUNCHING

(c)

NOTAUNISN

(d)

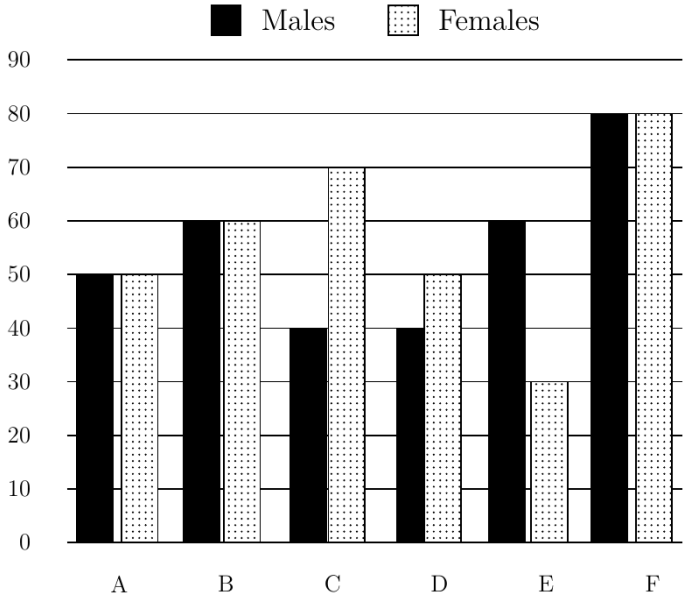
NOTAUNEN

Q94. From the table given, determine what is the increase in pollution from 2005 to 2006 in the river that has higher pollution.

BOD level mg/litre		
River B in Uttaranchal	2005	55
2006	85	
River D in Uttaranchal	2005	66
2006	99	

(a) 30
(b) 11
(c) 14
(d) 33

Q95. The given graph shows the number (in thousands) of male and female unemployed youth in six cities (A, B, C, D, E and F). What is the ratio of the total number of unemployed females to the unemployed males across all the cities?



(a) 1 : 2

(b) 1 : 1
(c) 3 : 1
(d) 2 : 3

Q96. Six persons - teacher, lawyers, doctor, politician, artist and writer - are sitting around a hexagonal shaped table such that the lawyer and the writer are not sitting next to each other. The teacher is sitting between the doctor and the lawyer. The politician is sitting next to the doctor. Who is sitting between the lawyer and the writer?

(a) Artist
(b) Writer
(c) Politician
(d) Teacher

Q97. Out of the four items listed, three are alike in some manner and one is different. Select the odd one.

Petal, Sepal, Pollen, Ligament

(a) Pollen
(b) Sepal
(c) Ligament
(d) Petal

Q98. A college offers two papers to a student such that if a student studies Philosophy, he or she must study French. One who studies History cannot choose Psychology. French students cannot study History. French students cannot opt for Spanish. Only History students can study Political Science. No Psychology student has opted for Sociology. If so, what other discipline will a Psychology student have to study?

(a) Spanish
(b) Sociology
(c) Political Science
(d) French

Q99. In a certain code language, REGULATION is written as QDFTKZSHNM. How will SYMPOSIUM be written as in that language?

(a) RXLONRJTL
(b) RXLONRHTL
(c) RXLONRTHL
(d) RXLNORHVL

Q100. Select the option that is related to the third term in the same way as the second term is related to the first term.

Direct : Indirect :: Different : ?

(a) Identical
(b) Inconsistent
(c) Indistinct
(d) Inanimate

ANSWER KEY

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

YourMockTest.com — Free Study Material

81	d	82	b	83	c	84	c	85	c	86	b	87	c	88	c	89	a	90	d
91	b	92	b	93	c	94	d	95	b	96	a	97	c	98	a	99	b	100	a

SOLUTIONS

Q1. Answer: (d) BATS

Given: A, AT, BAT, ?

Logic: Marks of a letter are its position number in the English alphabet.

By checking options:

(1) BAIT

Letters	B	A	I	T
Positional Values	2	1	9	20
Sum of Positional Values	2 + 1+ 9 + 20 = 32			

(2) BATE

Letters	B	A	T	E
Positional Values	2	1	20	5
Sum of Positional Values	2 + 1+ 20 + 5 = 28			

(3) BATH

Letters	B	A	T	H
Positional Values	2	1	20	8
Sum of Positional Values	2 + 1+ 20 + 8 = 31			

(4) BATS

Letters	B	A	T	S
Positional Values	2	1	20	19
Sum of Positional Values	2 + 1+ 20 + 19 = 42			

Now, by comparing BATS will give more points in the scrabble game.

Hence, BATS is the correct answer.

Q2. Answer: (c) 50

Given:

Highest salary in C5 = 75 lakhs

Lowest salary in C6 = 50 lakhs

Calculation:

Difference between the highest and lowest salary = 75 - 50 = 25 lakhs

Difference percentage = 25/50 × 100 = 50%

Therefore The required percentage is 50%

Q3. Answer: (d) a = 7 cm, b = 24 cm, c = 25 cm

Concept:

Pythagoras Theorem says that the sum of the square of base and perpendicular is equal to the square of the hypotenuse of a right angled triangle or the sum of the squares of two sides is equal to the square of the third side.

Calculation:

Let us check this property with the above options;

Option 1: $4^2 + 5^2 \neq 7^2$

Option 2: $5^2 + 5^2 \neq 6^2$

Option 3: $4^2 + 5^2 \neq 6^2$

YourMockTest.com — Free Study Material

Option 4: $7^2 + 24^2 = 25^2$

Therefore The sides in the option 4 are of a right angle triangle.

Q4. Answer: (c) Kanishka

The correct answer is Kanishka.

• Kanishka convened the fourth Buddhist Council in Kashmir.

Important Points

• The fourth Buddhist council was convened at Kudalavana, Kashmir in 72AD.

• It was presided by Vasumitra and deputed by Asvaghosha.

• The fourth Buddhist council dealt with the serious conflict between Sarvasthivada teachers of Kashmir and Gandhara.

• Sarvasthivada was one of the early Buddhist schools established during the reign of Ashoka.

• Buddhism was divided into two sects namely Hinayana and Mahayana after this council.

Additional Information

Name	Details
Chandragupta Maurya	• Chandragupta Maurya was the founder of the Mauryan Empire in ancient India.
Bimbisara	• Bimbisara was a king of Magadha. - He belonged to the Haryanka dynasty.
Kanishka	• He was an emperor of the Kushan dynasty.
Ajatashatru	• Ajatashatru was the king of Magadha. - He belonged to the Haryanka dynasty.

Q5. Answer: (c) Norton

The correct answer is Norton.

• Norton Antivirus is an anti-virus or anti-malware software product developed and distributed by Norton LifeLock since 1991 as part of its Norton family of computer security products.

Important Points

Name	Details
XML	• It stands for an extensible markup language. - A markup language is a set of codes that describes the text in a digital document.
Microsoft	• Microsoft is an American multinational technology corporation that produces computer software, personal computers.
Norton	• Norton is an antivirus software
Google	• Google is an American multinational technology corporation that specializes in Internet-related services and products.

Q6. Answer: (a) 5, 7

Given:

$1/(5\sqrt{2}-7)=a\sqrt{2}+b$

Formula used:

$(a + b)(a - b) = a^2 - b^2$

Calculation:

$1/(5\sqrt{2}-7)=a\sqrt{2}+b$

By rationalizing;

$\Rightarrow 1/(5\sqrt{2} - 7) \times (5\sqrt{2} + 7)/(5\sqrt{2} + 7) = a\sqrt{2} + b$

$\Rightarrow (5\sqrt{2} + 7)/((5\sqrt{2})^2 - (7)^2) = a\sqrt{2} + b$

$\Rightarrow (5\sqrt{2} + 7)/(50 - 49) = a\sqrt{2} + b$

$\Rightarrow (5\sqrt{2} + 7)/1 = a\sqrt{2} + b$

$\Rightarrow (5\sqrt{2} + 7) = a\sqrt{2} + b$

YourMockTest.com — Free Study Material

By comparing LHS and RHS;

Therefore a = 5, b = 7

Q7. Answer: (d) New Delhi, India

The correct answer is New Delhi, India.

• The three Days World Sustainable Development Summit 2019 was organized in New Delhi, India.

Important Points

• World Sustainable Development Summit, 2019 was organized on 11-13 February 2019.

• It was hosted by The Energy and Resources Institute.

• World Sustainable Development Summit will focus on the theme 'Attaining the 2030 Agenda: Delivering on our Promise'.

Additional Information

Name	Details
Hanoi	• Hanoi is the capital city of Vietnam. - It is known for its centuries-old architecture.
Port Moresby	• It's also known as Pom city. - Port Moresby is the capital of Papua New Guinea.
Kathmandu	• Katmandu is the capital city of Nepal.
New Delhi	• New Delhi is the capital city of India.

Q8. Answer: (c) Rs. 3,136

Given:

Cost of 10 books = Rs.560

Calculation:

Cost of 1 book = Rs.560/10

=> Cost of 1 book = 56

Therefore Cost of 56 books = 56 × 56

=> 3136

Q9. Answer: (b) Gharapuri Island

The correct answer is Gharapuri Island.

• The Elephanta caves are situated on Gharapuri Island.

Key Points

• The Elephanta caves are located in western India on Elephanta island also called the island of Gharapuri.

• It features two hillocks separated by a narrow valley.

• The Elephanta caves contain a collection of rock art linked to the cult of shiva.

• Designated by UNESCO as a world heritage site.

Additional Information

Name	Details
Havelock Island	• Havelock Island officially known as swaraj island forms a part of the Andaman Islands.
Majuli Island	• Majuli is a river island in Brahmaputra river, Assam.
Munroe Island	• Munroe Island is an inland island located at the confluence of Ashtamudi lake, Kallad river in Kollam district, Kerala.

Q10. Answer: (c) Brasilia

The correct answer is Brasilia.

Important Points

• BRICS is an important grouping bringing together the major emerging economies from the world.

• It comprises 41% of the world's population and 24% of the world's GDP and over 16% of Worlds trade.

• It emphasizes the three pillars of Political and Security, economic and financial, cultural and people-to-people exchanges.

YourMockTest.com — Free Study Material

• The theme of 11th BRICS Summit: Economic Growth for an Innovative Future.

Additional Information

Name	Details
London	• London is the capital and largest city of England and the United Kingdom.
Tokyo	• Tokyo is the capital of Japan.
Brasilia	• Brasilia is the capital of Brazil.
New York	• New York is a city in the United States. - It's the most densely populated city in the United States.

Q11. Answer: (c) Arctic

The correct answer is Arctic

• Arctic is a cold winter desert.

Key Points

• The Arctic Desert is considered the major cold winter desert in the world.

• It spans across Greenland, Northern Canada, Siberia, and Alaska.

• It has extremely low temperatures (as low as −40°C) and receives very little precipitation, mostly in the form of snow.

• Annual precipitation is less than 250 mm.

• Although covered in ice, it is classified as a desert due to its very low humidity and minimal precipitation.

• The Earth has two main cold deserts:

• Arctic Desert (North Pole region)

• Antarctic Desert (South Pole region)

• Life is minimal in these deserts, with only specially adapted organisms like polar bears, seals, lichens, and mosses surviving in such harsh conditions.

Additional Information

Name	Details
Sahara	• The Sahara is a desert on the African continent. - It is the largest hot desert in the world.
Arctic	• The Arctic desert is located towards the Earth's North Pole.
Arabian	• The arabian desert encompasses the entire Arabian Peninsula. - It stretches from Yemen to the Persian Gulf and Oman to Jordan and Iraq

Q12. Answer: (b) 15 cm

Given:

Perimeters of two similar triangles ΔABC and ΔPQR are 36 cm and 24 cm respectively.

PQ = 10cm

Concept:

The ratio of perimeters of two similar triangles is equal to the ratio of their corresponding sides.

Calculation:

Perimeter of ΔABC/Perimeter of ΔPQR = AB/PQ

=> 36/24 = AB/10

=> 3/2 = AB/10

=> AB = 3 × 10/2

Therefore AB = 15 cm

Q13. Answer: (c) 1853

The correct answer is 1853.

• The first passenger railway line was opened between Bombay and Thane in 1853.

YourMockTest.com — Free Study Material

Important Points

• The first passenger train ran between Bori Bunder(Bombay) and Thane on 16th April 1853.

• It was a distance of 34km.

• It was operated by three locomotives Sahib, Sultan, and Sindh.

• It had thirteen carriages.

Q14. Answer: (c) V. K. Krishna Menon

The correct answer is V. K. Krishna Menon.

• The minister who resigned during the India-China war in 1962 is V. K. Krishna Menon.??

Key Points

• Vengali Krishna Kurup Krishna Menon was an Indian politician,non-career diplomat, and nationalist.

• He was born on 3 May 1896, Kozhikode.

• He wrote the first draft of Preamble to the Constitution of India.

• He coined the name Non-Alignment movement.

Important Points

• The Sino-India war between India and china occurred in October-November 1962.

• A disputed Himalayan border was the main cause of the war.

Additional Information

Name	Details
Morarji Desai	• Morarji Ranchhodji Desai was an Indian Politician who served as the 4th Prime Minister of India.
Lal Bahadur Shastri	• Lal Bahadur Shastri was an Indian statesman. - He served as the second Prime Minister of India.
Sardar Patel	• Sardar Patel was an Indian statesman. - He served as the First Deputy Prime Minister of India.

Q15. Answer: (a) (15× 225)/45

Given:

HCF of two numbers = 15

LCM of two numbers = 225

Formula used:

Product of two numbers = HCF × LCM

Calculation:`

Let the numbers be = a and b

ab = 15 × 225

=> 45b = 15 × 225

Therefore b = 15 × 225/45 or 75

Q16. Answer: (d) Saliva

The correct answer is Saliva.

• Saliva helps in food digestion.

Important Points

• Saliva is a clear liquid made by the salivary glands in the mouth area.

• It is mostly made of water.

• Saliva also contains Mucus, white blood cells, epithelial cells, enzymes, antimicrobial agents.

Additional Information

Name	Details
Carbon	• Carbon is a chemical element with atomic number 6. - Its symbol is C.

YourMockTest.com — Free Study Material

Helium	• Helium is a chemical element with atomic number 2. - Its symbol is He.
Oxygen	• Oxygen is a chemical element with atomic number 8. - Its symbol for dioxygen is O2.

Q17. Answer: (a) Provincial autonomy

The correct answer is provincial autonomy.

Important Points

• The Government of India Act, 1935 was passed by British Parliament in 1935 and came into effect in 1937.

• It was based on the report by a Joint Select Committee led by Lord Linlithgow.

• It was organized into 11 parts and 10 schedules.

• Key features: The creation of a 'Federation of India' that consisted of two levels, a central executive and Parliament, and below it provinces and princely states.

• It discarded the dyarchy system at the provincial level. And it was replaced with the Provincial Autonomy. Hence option 1 is correct.

• A federal court was established.

• It further extended the principle of communal representation by providing separate electorates for depressed classes (scheduled castes), women and labour (workers).

Q18. Answer: (a) 0°

Given:

sin 2A = 2 sin A

Formula used:

sin 2A = 2sinA cosA

Calculation:

sin 2A = 2 sin A

=> 2sinA cosA = 2 sin A

=> cosA = 1

=> cosA = cos0°

Therefore A = 0°

Alternate MethodBy Hit and Trial Method

At A = 0°; sin 2A = 2 sin A

At A = 60°; sin 2A ≠ 2 sin A

At A = 30°; sin 2A ≠ 2 sin A

At A = 90°; sin 2A ≠ 2 sin A

Q19. Answer: (a) Sides: AB = 2.5 cm, BC = 4.5 cm, CA = 3.5 cm, PQ = 5 cm, QR = 9 cm, RP = 7 cm

Given:

Calculation:

Option1:

Concept:

When ΔABC and ΔPQR are similar to each other, the ratio of their corresponding sides will be equal.

=> AB/PQ = BC/QR = AC/PR

Let us check the condition;

=> 2.5/5 = 4.5/9 = 3.5/7

Because 1/2 = 1/2 = 1/2

Therefore ΔABC ~ ΔPQR (SSS)

Option 2:

Concept:

Two similar triangles have their corresponding angles equal to each other.

In ΔABC, angle A = 40°, angle B = 60°, angle C = 80°

In ΔPQR, angle P = 40°, angle Q = 20°, angle R = 120°

Because angle A = angle P = 40° but angle B ≠ angle Q & angle C ≠ angle R

Therefore ΔABC is not similar to ΔPQR.

Option 3:

Let us check SSS criteria of similarity with ΔABC and ΔPQR.

=> 3/4.5 ≠ 7.5/7.5 ≠ 5/6

Therefore ΔABC is not similar to ΔPQR.

Option 4:

Two similar triangles have their corresponding angles equal to each other.

In ΔABC, angle A = 50°, angle B = 70°, angle C = 60°

In ΔPQR, angle P = 50°, angle Q = 60°, angle R = 70°

Because angle A = angle P = 40° but angle B ≠ angle Q & angle C ≠ angle R

Therefore ΔABC is not similar to ΔPQR.

Therefore Option 1 satisfies the condition of similarity of two triangles.

Q20. Answer: (a) GSLV MK-III

The correct answer is GSLV MK-III.

• GSLV MK-III was the launch vehicle used by the Indian Space Research Organisation (ISRO) for its lunar exploration mission, Chandrayaan-2.

Important Points

• GSLV MK-III is a three-stage heavy-lift launch vehicle developed by ISRO.

• It will be capable of placing a 4-tonne class satellite of the GSAT series into Geosynchronous Transfer Orbits(GTO).

• The vehicle has two solid strap-ons, a core liquid booster, and a cryogenic upper stage.

• Chandrayan-2 is the second lunar exploration mission developed by ISRO,

• ISRO-Indian Space Research Organization is the national space agency of India.

Additional Information

• PSLV-C 21-Indian Polar Launch Vehicle launched a french earth observation satellite along with a microsatellite from Japan.

Q21. Answer: (c) Agriculture

The correct answer is Agriculture.

• In India, commercial banks have the highest share in the disbursement of credit to Agriculture.

Important Points

• Priority Sector Lending: The government of India and the Reserve Bank of India consider some sectors as important as they need development to fulfill the basic needs of the country.

• Categories under priority sector: Agriculture.

• Micro, Small and Medium Enterprises

• Export Credit

• Education

• Housing

• Social infrastructure

• Renewable Energy

• Others.

Q22. Answer: (d) 240

Formula used:

Class marks = (Lower limit + Upper limit)/2

Calculation:

The sum of the class marks of 90-120 and 120-150 = (90 + 120)/2 + (120 + 150)/2

=> 210/2 + 270/2 = 105 + 135 = 240

Therefore The required result = 240

Q23. Answer: (a) IRNSS-1I

The correct answer is IRNSS-1I.

Important Points

• Indian Regional Navigation System is an independent regional navigation system developed by India.

• It is designed to provide accurate position information service to the users in India as well as the region extending up to 1500 km from its boundary which is its primary service area

Name	Details
IRNSS-1A	It was launched by PSLV-C22
IRNSS-1B	It was launched by PSLV-C24
IRNSS-1C	It was launched by PSLV-C26
IRNSS-1D	It was launched by PSLV-C27
IRNSS-1E	It was launched by PSLV-C31
IRNSS-1F	It was launched by PSLV-C32
IRNSS-1G	It was launched by PSLV-C33
IRNSS-1I	It was launched by PSLV-C41

Q24. Answer: (d) Goa

The correct answer is Goa.

• As per the report of the Ministry of Statistics and Programme Implementation released in Jan 2020, for FY 2018-19, Goa has the highest per capita income among all Indian states and union territories.

Key Points

• Per capita income is the average income earned per person in a given area.

• Goa is a state in western India.

• It was declared as a state on 30 May 1987.

• Its capital is Panaji.

• Its official language is Konkani one of the 22 languages from the Eighth Schedule of the constitution.

Important Points

• Ministry of Statistics and Programme Implementation came into existence as an independent ministry on 15 October 1999.

• The Ministry has two wings one relating to statistics and others Programme implementation.

Additional Information

Name	Details
Kerala	• Kerala is a state on India's tropical Malabar Coast. - Its capital is Thiruvananthapuram.
Punjab	• Punjab is a state in North India. - Its capital is Chandigarh.
Haryana	• Haryana is a North Indian state. - Its capital is Chandigarh.

Q25. Answer: (d) Direction

Given: Map : Location :: Compass : ?

Logic:

Map is used to find Location.

Similarly,

Compass is used to find Direction.

Hence, direction is the correct answer.

Q26. Answer: (c) 28

Given:

35 people could complete a work in 24 days

Formula used:

Total work = People × days

Calculation:

Let the extra number of people to be employed = a

As per the question;

35 × 24 = 35 × 6 + 10(a + 35)

=> 840 - 210 = 10a + 350

=> 630 - 350 = 10a

=> 280/10 = a

=> a = 28

Therefore No of extra people to be employed = 28

Q27. Answer: (a) 33/5 mins

Given:

Time taken by first puncture to flat the tyre = 9 minutes

Time taken by second puncture to flat the tyre = 6 minutes

Formula used:

Total work = Efficiency × Time

Calculation:

By LCM Method

Let the total capacity of air in the tyre be the LCM of 9 and 6 as a common multiple.

Therefore Time taken by both the punctures to flat the tyre = 18/(2 + 3)

=> 33/5 minutes

Alternate MethodLet the capacity of the tyre be = 1

Quantity of air leaked by first puncture in 1 minute = 1/9

Quantity of air leaked by second puncture in 1 minute = 1/6

=> Quantity of air leaked by both the punctures = 1/9 + 1/6

=> 5/18

Therefore Time taken by both the punctures to flat the tyre = 1 ÷ 5/18

=> 18/5 = 33/5 minutes

Q28. Answer: (b) Mumbai

The correct answer is Mumbai.

• The 5th India Nuclear New Build Congress conference was organized at Mumbai in May 2019.

Important Points

• India Nuclear New Build Congress 2019 is one of the most recognized and best-established nuclear industry conferences in India.

• It will focus on Nuclear Power Ambition in India.

• It is the best platform for discussing national incentives, nuclear liability, law, compensation and insurance, financing, investment and pricing, project management, supply chain, fuel cycle and waste management, advanced technologies.

• 2019 conference emphasizes on grasping new opportunities in the 'Make in India' program of localized manufacturing.

Additional Information

Name	Details
Delhi	• It's the capital of India.
Mumbai	• Mumbai is a city on India's west coast. - It's the capital of Maharashtra.
Bengaluru	• It's the capital of Karnataka.
Kolkata	• It's the capital of West Bengal.

Q29. Answer: (a) Asymmetrical Digital Subscriber Line

The correct answer is Asymmetrical Digital Subscriber Line.

Important Points

• Asymmetrical Digital Subscriber Line is a type of digital subscriber line technology a data communications technology that

enables faster data transmission over copper telephone lines.

• Asymmetrical Digital Subscriber Line works by using spectrum above band used by voice telephone calls.

• It provides high transmission speed for video and voice over an ordinary copper telephone wire.

Q30. Answer: (c) 6/11

Given:

Natural numbers: 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12

Concept:

Prime numbers = Those numbers which have 2 factors. That is 1 and the number itself.

Here, prime numbers are 2, 3, 5, 7, 11

Composite numbers = Those numbers which have more than 2 factors are composite numbers.

Here, these are 4, 6, 8, 9, 10, 12 (6 in total)

Calculation:

Total numbers = 11

Therefore The fraction of composite numbers from 2 to 12 = 6/11

Q31. Answer: (d) the additive property of zero

Given:

A + 0 = 0 + A = A, where A is a real number

Concept:

Commutative property of addition:

a + b = b + a [a and b are real numbers]

Associative property of addition:

a + (b + c) = (a + b) + c [a, b & c are real numbers]

Inverse property of addition:

a + (- a) = 0 [a is a real number]

Additive property of zero:

a + 0 = 0 + a [a is a real number]

Therefore The correct answer is option 4.

Q32. Answer: (b) Measuring instruments

Given:

(1) Altimeter → An altimeter is a device that measures altitude.

(2) Barometer → A barometer is a scientific instrument used to measure atmospheric pressure.

(3) Dynamometer → A dynamometer is a device that measures force, torque or power.

(4) Thermometer → A thermometer measures the temperature of a person or premises indicating the intensity of heat or cold.

The logic follows here is: All these are measuring instruments.

Hence, measuring instruments is the correct answer.

Q33. Answer: (b) 42

Logic: Column wise:

(1st number - 3rd number) + 2 = 2nd number

Column 1: (30 - 12) + 2 = 18 + 2 = 20;

Column 2: (42 - 14) + 2 = 28 + 2 = 30;

Similarly,

Column 3: (56 - 16) + 2 = 40 + 2 = 42.

Hence, 42 is the correct answer.

Q34. Answer: (b) [figure]

Given: Sportspersons, Shooters, Swimmers

Logic: All shooters and swimmers are sportspersons but shooters and swimmers have no common relation.

Hence, option (2) is the correct answer.

YourMockTest.com — Free Study Material

Q35. Answer: (d) (2m - n) (4m² + 2mn + n²)

$a^3 - b^3 = (a - b)(a^2 + ab + b^2)$

$(2m)^3 - n^3 = (2m - n)(4m^2 + 2mn + n^2)$

Q36. Answer: (d) Xylem

The correct answer is Xylem.

Important Points

• Xylem is one of the two types of transport tissue in vascular plants.

• The basic function of the xylem is to transport water from roots to stems and leaves, it also transports nutrients.

• The word xylem is derived from the Greek word xylon meaning wood.

Additional Information

Name	Details
Collenchyma	• Collenchyma is a supporting tissue composed of more or less elongated living cells with unevenly thickened non-lignified primary walls.
Parenchyma	• The cellular tissue is typically soft and succulent found in the softer part of leaves, the pulp of fruits.
Phloem	• Phloem is the vascular tissue that transports carbon from leaves to the basal parts of the plant.

Q37. Answer: (b) 400

Given:

35% of x = 140

Calculation:

35% of x = 140

=> 35/100 × x = 140

=> x = 140 × 100/35

Therefore x = 400

Q38. Answer: (d) Indira Gandhi

The correct answer is Indira Gandhi.

• 'Garibi hatao' was the slogan of Indira Gandhi.

Important Points

• Garibi Hatao meaning Remove Poverty was the theme and slogan of Indira Gandhi's 1971 election campaign.

• It was a part of the five-year plan.

• The slogan and the proposed anti-poverty programs were designed to reach out directly to the poor and marginalized bypassing the dominant rural castes.

Additional Information

Name	Details
Morarji Desai	• Morarji Ranchhodji Desai was an Indian Politician who served as the 4th Prime Minister of India.
K. Kamaraj	• Kumaraswami Kamaraj was an Indian Independence activist. - He served as chief minister of Madras state.
Karpoori Thakur	• He was an Indian politician. - He hails from Bihar state.
Indira Gandhi	• Indira Priyadarshini Gandhi was an Indian Politician. - She was the 3rd Prime Minister of India.

Q39. Answer: (a) 10 degrees

The correct answer is 10 degrees.

• The Rate constant of a reaction doubles with a 10 degrees rise in temperature.

Key Points

YourMockTest.com — Free Study Material

• The rate constant is defined as the proportionality constant which explains the relationship between the molar concentration of reactants and the rate of a chemical reaction.

• As you increase the temperature the rate of reaction increases. As a rough approximation, for many reactions happening at around room temperature, the rate of reaction doubles for every 10°C rises in temperature.

• This is due to an increase in the number of particles that have the minimum energy required.

Additional Information

• The rate constant is denoted by 'K'.

• The reaction rate constant depends on temperature.

• Increasing the temperature of a reaction generally speeds up the process (increases the rate) because the rate constant increases according to the Arrhenius Equation.

• As T increases, the value of the exponential part of the equation becomes less negative thus increasing the value of k.

• (Increasing the temperature increases the rate constant.) If the temperature is lowered then T_(2 1) and the right side of the equation is negative. Thus k_(2 1. (Decreasing the temperature decreases the rate constant.))

Q40. Answer: (a) Philippines

The correct answer is the Philippines.

• The Philippines is the headquarters of the Asian Development Bank (ADB).

Key Points

• Asian Development Bank(ADB) is a regional development bank.

• It has 68 members for now.

• ADB resembles closely with World Bank, it has a similar voting system where votes are distributed in proportion to members' capital subscriptions.

• The Asian Development Bank is a regional development bank established on 19 December 1966, which is headquartered in the Ortigas Center located in the city of Mandaluyong, Metro Manila, Philippines.

• The company also maintains 31 field offices around the world to promote social and economic development in Asia.

• The current President of the Asian Development Bank (ADB) is Masato Kanda, who assumed office on February 24, 2025.

Additional Information

Name	Details
Philippines	• The Philippines is an archipelagic island country in Southeast Asia. - Current President: Ferdinand Romualdez Marcos Jr. - Currency: Philippine peso
South Korea	• It is an East Asian nation, - Its capital is Seoul. - Current President: Yoon Suk-yeol - Currency: Won
China	• China is an East Asian country. - It is the world's 2nd most populous country. - Its capital is Beijing. - Current President: Xi Jin Ping - Currency: Renminbi
Japan	• Japan is an island country in East Asia. - Its capital is Tokyo. - Current Prime Minister: Shigeru Ishiba - Currency: yen

Q41. Answer: (a) Manipur

The correct answer is Manipur.

• The Famous 'Sangai Festival' is an annual cultural festival organized by Manipur state of North-East India.

Key Points

• Sangai festival is an annual cultural festival organized by the Manipur Tourism Department every year from 21 to 30 November.

• The festival is named after the state animal 'Sangai' the brown antlered deer.

• Many folk dance performances like Bamboo dance, Maibi dance are performed.

• 'Ras Leela' is an important form of dance performance at the festival.

Additional Information

Name	Details
Manipur	• Manipur is a state in northeast India. - Its capital is Imphal.
Meghalaya	• Meghalaya is a state in northeast India. - Its capital is Shillong.

Tripura	• Tripura is a state in northeast India. - Its capital is Agartala.
Nagaland	• Nagaland is a state in northeast India. - Its capital is Kohima.

Important Points

All the major festivals celebrated in India:

State	Festival
Andhra Pradesh	Dasara, Ugadi, Deccan Festival, Brahmotsavam
Arunachal Pradesh	Reh, Boori Boot, Myoko, Dree, Pongtu, Losar, Murung, Solang, Mopin, Monpa festival
Assam	Ambubachi, Bhogali Bihu, Baishagu, Dehing Patkai
Bihar	Chhath Puja, Bihula
Chhattisgarh	Maghi Purnima, Bastar Dussehra
Goa	Sunburn festival, Ladain, Mando
Gujarat	Navratri, Janmashtami, Kutch Utsav, Uttarayana
Himachal Pradesh	Rakhadumni, Gochi Festival
Haryana	Baisakhi
Jammu and Kashmir	Har Navami, Chhari, Bahu Mela, Dosmoche,
Jharkhand	Karam Utsav, Holi, Rohini, Tusu
Karnataka	Mysore Dasara, Ugadi
Kerala	Onam, Vishu
Madhya Pradesh	Lok-rang Utsav, Tejaji, Khujaraho festival
Meghalaya	Nongkrem festival, Khasis festival, Wangla, Sajibu Cheiraoba
Maharashtra	Ganesh Utsav, Gudi Padva
Manipur	Yaoshang, Porag, Chavang Kut
Mizoram	Chapcharkut Festival
Nagaland	Hornbill festival, Moatsu Festival
Odisha	Rath Yatra, Raja Parba, Nukahai
Punjab	Lohri, Baisakhi
Rajasthan	Gangaur, Teej, Bundi
Sikkim	Losar, Saga Dawa
Tamil Nadu	Pongal, Thaipusam, Natyanjali Festival
Telangana	Bonalu, Bathukamma
Tripura	Kharchi Puja
West Bengal	Durga Puja
Uttaranchal	Ganga Dussehra
Uttar Pradesh	Ram Navmi, Ganga Mahotsav, Navaratri, Khichdi

Q42. Answer: (b) 8 : 1

Given:

A sphere with radius = r

Formula used:

The volume of a sphere = $4/3\pi r^3$

YourMockTest.com — Free Study Material

Calculation:

Radius of new sphere = 2r

Therefore The required ratio;

Volume of new sphere/Volume of original sphere = 4/3π(2r)3/ 4/3πr3

=> $8r^3/r3 = 8 : 1$

Important Points

The ratio of the volume of two sphere is always the ratio of the cubes of their respective radii.

Q43. Answer: (b) 84

Given:

72 - 52 + 32 ÷ 2 × 32 ÷ 8

Calculation:

72 - 52 + 32 ÷ 2 × 32 ÷ 8

=> 72 - 52 + 32/2 × 32/8

=> 72 - 52 + 16 × 4

=> 20 + 64 = 84

Therefore The required result = 84

Q44. Answer: (a) George Fernandes

The correct answer is 1974.

• George Fernandes led the railway strike in 1974.

Key Points

• George Mathew Fernandes was an Indian trade unionist, statesman, Journalist.

• He was born on 3 June 1930.

• He was a former member of the Rajya Sabha and Lok Sabha.

• All India Railway strike of 1974 was the most notable strike organized by Fernandes when he was the president of All India Railwaymen's Federation.

Additional Information

Name	Details
J.P.Narayan	• Jaya Prakash Narayan was an Indian independence activist, Socialist, Political leader. - He is also called Lok Nayak.
S.P.Mukherjee	• Syama Prasad Mukherjee was an Indian Politician, barrister, academician.
Morarji Desai	• Morarji Ranchhodji Desai was an Indian Politician who served as the 4th Prime Minister of India.

Important Points

All the Railway Zones Headquarters of India:

Railway Zone	Zonal Headquarters
Central Railway	Mumbai
Eastern Railway	Kolkata
East Central Railway	Hajipur
East Coast Railway	Bhubaneshwar
Northern Railway	Baroda House, New Delhi
North Central Railway	Allahabad
North Eastern Railway	Gorakhpur
North Frontier Railway	Maligaon, Guwahati
North Western Railway	Jaipur
Southern Railway	Chennai

YourMockTest.com — Free Study Material

South Central Railway	Secunderabad
South Eastern Railway	Garden Reach, Kolkata
South East Central Railway	Bilaspur
South Western Railway	Hubli
Western Railway	Mumbai CST
West Central Railway	Jabalpur
Southern Coast Railway (18th)	Visakhapatnam

Q45. Answer: (d) 54,080

Given:

Present population of a town = 50000

Increasing rate of the population per year = 4%

Calculation:

Population of the town at the end of one year = 50000 + 50000 × 4/100 = 52000

Population of the town at the end of two years = 52000 + 52000 × 4/100 = 54080

Therefore The required population = 54080

Alternate MethodEffective rate of increase in population: a + a + a × a/100

=> 4 + 4 + 4 × 4/100 = 8.16%

Total population after 2 years = 50000 × (100% + 8.16%)

=> 54080

Q46. Answer: (b) 71/2

Given:

Time taken by Amar Jeet Singh to do the work = 5 days

Time taken by Amar Jeet Singh and his son to do the work = 3 days

Formula used:

Total work = Efficiency × Time

Calculation:

By LCM Method

Let the total work be the LCM of 5 and 3 as being the common multiple.

Efficiency of the son = 5 - 3 = 2 units per day

Therefore No of days taken by the son to do the job = 15/2 = 7.5 or 71/2 days.

Alternate MethodLet the total work be = 1

One day work done by Amar Jeet Singh = 1/5

One day work done by Amar Jeet Singh and his son = 1/3

=> One day work done by the son = 1/3 - 1/5

=> (5 - 3)/15

=> 2/15

Therefore Time taken by the son to do the job = 1÷ 2/15

=> 15/2 = 7.5 days

Q47. Answer: (d) 39

Given: 111, 90, 71, 54, ?

Reason: The difference in odd numbers is decreasing as shown in the diagram:

Q48. Answer: (a) 16

Given:

Five bells start tolling together and toll at intervals of 2, 4, 6, 8 10 seconds respectively.

Concept:

LCM = Least Common Multiple

YourMockTest.com — Free Study Material

Calculation:

LCM can be found out by prime factorization

2 = 1 × 2

4 = 22

6 = 2 × 3

8 = 23

10 = 2 × 5

LCM (2, 4, 6, 8, 10) = 23 × 3 × 5 = 120

Bells toll together after every 120 seconds.

Number of tolling the bells in 30 minutes = (30 minutes × 60 seconds)/120

=> 1800 seconds/ 120 = 15

Therefore Total number of times of the tolling of bells after they toll for the first time

=> 15 + 1 = 16

Mistake Points

If two bells after 2 seconds and 5 seconds respectively and they start tolling at the same time.

Then, the first bell tolls after every 2, 4, 6 secs.....

=> The second bell tolls after every 5, 10, 15 secs

So, they toll together again after 10 seconds, which is the LCM.

Therefore They toll after 10 seconds, that is whenever the time is a common multiple of 2 and 5 both.

Since the bells start tolling together, the first toll also needs to be counted, that is the number of times of tolling since the first time.

Q49. Answer: (b) 3 : 1

Given:

Radius of cylinder and cone = r

Height of cylinder and cone = h

Formulas used:

Volume of cylinder = $\pi r^2 h$

Volume of cone = $1/3 \times \pi r^2 h$

Calculation:

Therefore Volume of cylinder/Volume of Cone = $\pi r2h/1/3 \times \pi r2h$

=> 3/1 = 3 : 1

Q50. Answer: (d) Black soil

The correct answer is Black soil.

• Black soil covers most of the Deccan Plateau.

Key Points

• Black soils are mineral soils that have a black surface horizon, enriched with organic carbon that is at least 25 cm deep.

• Black soils are derivatives of trap Lava.

• Black soil covers most of the Deccan Plateau which includes parts of Maharashtra, Madhya Pradesh, Gujarat, Andhra Pradesh and some parts of Tamil Nadu.

• Black soils have high clay content.

• They have an iron-rich granular structure.

• They are poor in humus but highly moisture-retentive.

Additional Information

Name of the Soil	Classification of Soil
Alluvial soil	• Alluvial soils are soils deposited by surface water. - They are mostly spread across Indo-Gangetic-Brahmaputra plains in India.
Red soil	• Red soil is soil that develops in warm temperatures and moist climates. - Red soil develops on crystalline igneous rocks in areas of low rainfall in the eastern and southern part of the Deccan Plateau - They are mostly spread across Tamil Nadu, Karnataka, Madhya Pradesh, Andhra Pradesh.

YourMockTest.com — Free Study Material

Important Points

All the soil Types present in the Indian States:

Q51. Answer: (c) South-west

We have drawn the figure according to the information given in the question,

(Let the turning points as shown in the figure)

Hence, the railway station situated in south-west direction with respect to the planetarium.

Q52. Answer: (a) Only II

The least possible Venn diagram is:

Conclusions:

I. All successful are graduates → False (as some successful can not be graduates as shown in the figure above, so it is possible but not definite)

II. All engineers are successful → True (as all engineers are graduates and all graduates are successful so, all engineers are successful too)

Hence, only II is the correct answer.

Additional Information

Q53. Answer: (b) 0.804

Given:

0.4 +404/1000

Calculation:

0.4 +404/1000 = 0.4 + 0.404

=> 0.804

Therefore The required result = 0.804

Q54. Answer: (c) 50√3 m

Given:

Distance between two walls = 100 m

Concept:

The longer stair will be AC as the corresponding side making the smaller angle is larger than that of making bigger angle.

Calculation:

Let the height of each of the walls = h

BC + CE = BE = 100

=> CE = 100 - BC .....(1)

In triangle ABC, AB/BC = tan 30°

=> h/BC = 1/√3

=> BC = √3h.....(2)

In triangle CDE, DE/CE = tan 60°

=> h/(100 - BC) = √3

h/(100 - √3h) = √3

h = 100√3 - 3h

4h = 100√3

h = 25√3 m ..... (3)

By (2) and (3)

BC = √3h = √3 × 25√3

=> BC = 75 m

Again in triangle ABC, BC/AC = cos 30°

=> 75/AC = √3/2

=> 150 = √3 × AC

=> AC = 150/√3

=> AC = 150/√3 ×√3/√3

Therefore AC = 50√3 m

YourMockTest.com — Free Study Material

Alternate MethodBy Ratio Method

3 + 1 = 4 = 100 m

=> 2√3= 100/4× 2√3

AC = 50√3

Q55. Answer: (c) 100

The correct answer is 100.

• According to the Ancient Monuments and Archaeological Sites and Remains Act 1958, any structure, sculpture, inscription, etc., which are in existence for no less than 100 years is termed ancient.

Key Points

• Ancient Monuments and Archaeological Sites and Remains Act 1958 is an Act to provide for the preservation of ancient and historical monuments and archaeological sites and the remains of national importance, for the regulation of the archaeological excavations, and the protection of cultures, carvings, and other like objects.

• According to the Act Ancient Monuments any structure, erection or monument, or any tumulus or place of interment or any cave. rock-sculpture, inscription, or monolith which is of historical, archaeological, or artistic interest and which has been in existence for not less than 100 years. These include

• Remains of the ancient monument.

• Site of the ancient monument.

• A portion of land adjoining the site of the ancient monument.

• The means of access to and convenient inspection of the ancient monument.

Additional Information About ASI (Archaeological Survey of India):

• The Archaeological Survey of India (ASI), under the Ministry of Culture, is the premier organization for the archaeological researches and protection of the cultural heritage of the nation.

• The main work of this organization is to Maintenance of ancient monuments and archaeological sites and remains of national importance are the prime concern of the ASI.

• Besides it regulate all archaeological activities in the country as per the provisions of the Ancient Monuments and Archaeological Sites and Remains Act, 1958. It also regulates Antiquities and Art Treasure Act, 1972.

• The Archaeological Survey of India (ASI) was formed in 1861 by a statute passed into law by Canning, with Alexander Cunningham as its first Archaeological Surveyor, to excavate and conserve India’s ancient built heritage.

• The current Director-General of ASI is Smt. Usha Sharma (As of Oct 2021).

Q56. Answer: (a) Karnataka

The correct answer is Karnataka.

• Karnataka is the state that leads in the list of monuments of national importance in South India declared by the Archaeological Survey of India (ASI).

• With 506 monuments, Karnataka leads South India in the ASI list.

• There were 3,686 centrally protected monuments/sites under the ASI in the country; the number has now increased to 3,693.

• Uttar Pradesh (745 monuments/sites)

• Karnataka (506),

• and Tamil Nadu (413) has the highest number of ASI-maintained sites.

Key Points

• The Monuments of National Importance are designated by the Archaeological Survey of India (ASI).

• The Union government of India authorized used to maintain, promote and protect Monuments of National Importance.

• Archaeological Survey of India (ASI) is an Indian government agency that is responsible for archaeological research and conservation and preservation of cultural monuments in the country.

• It was founded in 1861 by Alexander Cunningham.

• It comes under the Ministry of Culture.

Additional Information

Name	Details
Karnataka	• Karnataka is a state in southwest India. - Its capital is Bengaluru.
Andhra Pradesh	• Andhra Pradesh is a state eastern coastal region of India.
Tamil Nadu	• Tamil Nadu is a state in south India. - Its capital is Chennai.

YourMockTest.com - Free Study Material

Kerala	• Kerala is a state on India's tropical Malabar Coast. - Its capital is Thiruvananthapuram.

Important Points

• Link of List of Protected Monuments in India: https://www.india.gov.in/list-protected-monuments-various-states

Q57. Answer: (d) Some women are hardworking persons

The least possible Venn diagram is:

By checking options:

Conclusions:

(1) No teacher is a woman → False (it is possible as shown in the above diagram but not definite as some woman can be teacher is true as shown below)

(2) All teachers are women → False (it is possible but not definite as shown in the above diagram)

(3) All women are hardworking persons → False (it is possible but not definite as shown in the above diagram)

(4) Some women are hardworking persons → True (as most hardworking persons are woman)

Hence, option (4) is the correct answer.

Additional Information

Q58. Answer: (b) Tamil Nadu and Andhra Pradesh

The correct answer is Tamil Nadu and Andhra Pradesh.

Key Points

• The Coromandel Coast -

• This is the southeast coastal region of the Indian subcontinent.

• The Utkal plain in the north, the Bay of Bengal in the east, the Cauvery delta in the south, and the Eastern Ghats in the west cover.

• It covers an area of about 22,800 square kilometers.

Additional Information

• Coastal plains of India -

• From Gujarat to Mumbai Coast – Kathiawar Coast

• Coast from Mumbai to Goa – Konkan Coast

• From Goa to Kanyakumari – Malabar Coast

Q59. Answer: (c) UVW

Given: ABC, EFG, IJK, OPQ, ?

The logic follows here is:

Hence, UVW is the correct answer.

Q60. Answer: (c) 0.454545....

Given:

0.2323...+0.22...

Calculation:

0.2323...+0.22... = 0.23232323..... + 0.22222222.....

=> 0.45454545.....

=> 0.4545...

Therefore The required result = 0.4545... = 0.454545....

Q61. Answer: (a) International Day of Yoga

The correct answer is International Day of Yoga.

Key Points

• On 11 December 2014, the United Nations General Assembly declared June 21 to be celebrated as International Day of Yoga or World Yoga Day.

• After this, from the year 2015, this day was celebrated as International Yoga Day all over the world.

• June 21 is the longest day of the year and the sun is on the earth for the longest time.

Additional Information

• International Education Day -

YourMockTest.com — Free Study Material

• The United Nations General Assembly declared this day as International Day of Education to commemorate the role of education.
• International Education Day was celebrated for the first time on 24 January 2019.
• International Health Day -
• Every year 7 April is celebrated as World Health Day.
• International Babies Day -
• It is celebrate on 2nd May.

Q62. Answer: (b) Khan Abdul Ghaffar Khan

The correct answer is Khan Abdul Ghaffar Khan.
Key Points
• Khan Abdul Ghaffar Khan was a great statesman of the Frontier Province and Balochistan.
• He participated in the freedom struggle of India and came to be known as 'frontier Gandhi' because of his work and dedication.
Additional Information
• Maulana Abul Kalam Azad -
• He was a writer and a senior leaderr of the Indian National Congress.
• He is recognized by celebrating his birthday as National Education Day across India
• Badruddin Tyabji -
• He was an Indian activist and politician during the independence movement.
• He was the first Muslim president of the Indian National Congress.
• Mukhtar Ahmed Ansari -
• He was the leader of the Indian independence movement and the former president of the Muslim League.
• He was one of the founders of Jamia Millia Islamia University.

Q63. Answer: (d) Ostrich : Bird

Given: Butterfly : Insect :: ?
The logic follows here is:
Butterfly is an Insect.
Similarly,
Ostrich is a Bird.
Hence, ostrich : bird is the correct answer.
Important Points(1) Mammal is not a Man.
(2) Rodent is not a Rat.
(3) Furniture is not a Chair.

Q64. Answer: (b) Binary fission

The correct answer is Binary fission.
Key Points
• Binary fission is the process by which a single cell divides itself into 2 halves.
• Binary fission is an asexual reproduction wherein the body separates into two identical bodies.
• The word asexual describes a reproduction that occurs without involving sex cells (gametes).
• Binary fission is primarily observed in prokaryotes whereas a few single-celled eukaryotes also go through it.
• These are the basic steps involved in binary fission-
• Replication of DNA
• Growth of a Cell
• Segregation of DNA
• Splitting of Cells
Additional Information
• The different types of Binary fission:
• Simple Binary fission
• Longitudinal Binary fission
• Oblique Binary fission
• Transverse Binary fission

YourMockTest.com – Free Study Material

Q65. Answer: (a) 3

The correct answer is 3.

Key Points

• Ozone molecule contains three atoms of oxygen and it is denoted chemically as O3.

• It is naturally present in the atmosphere.

• It is explosive in concentrated amounts and can react with many chemical compounds.

• Most ozone (about 90%) is found in the stratosphere, a region that begins about 10-16 kilometers (6-10 miles) above Earth's surface.

• Further, most ozone resides in the stratosphere in "ozone layer."

Additional Information

• The ozone layer covers the entire planet and protects life on earth by absorbing harmful ultraviolet-B (UV-B) radiation from the sun.

• When inhaled, ozone can damage the lungs. Relatively low amounts can cause chest pain, coughing, shortness of breath and throat irritation.

• It damages vegetation and ecosystems by inhibiting the ability of plants to open the microscopic pores on their leaves to breathe.

• It also interferes with the photosynthesis process by reducing the amount of carbon dioxide the plants can process and release as oxygen.

Q66. Answer: (d) Kingdom of Awadh

The correct answer is Kingdom of Awadh.

Key Points

• The Kingdom of Awadh was called "a cherry" by Governor-General Lord Dalhousie.

• To be precise, in 1851, Governor-General Lord Dalhousie described the kingdom of Oudh as "a cherry that will one day fall in our mouths".

• Five years later, in 1856, the state was formally annexed to the British Empire.

• A subsidiary alliance had already been imposed on Oudh in 1801.

• The Nawab had to disband its military power and according to the alliance, the British had to allow their troops to be stationed within the state.

• The Nawabs became increasingly dependent on the British for maintaining law and order within the state.

• The British felt that the soil of Awadh was good for the production of indigo and cotton.

• The acquisition of Awadh in 1856 was expected to complete the process of territorial merger.

Q67. Answer: (b) Camels are used for transportation in deserts.

The correct answer is Camels are used for transportation in deserts.

Key Points

• 'A camel is called the ship of the desert' is drawn from the assumption because camels are used for transportation in deserts.

• Dromedary camels can carry over two hundred kilograms on their backs.

• Camels can walk four kilometres per hour through the hot desert.

• They can survive up to 15 days without water.

• Camel humps can contain up to nearly 80 pounds of fatty tissue.

• They store fat in their humps and this fat helps them to go on without water.

• Since deserts are water-scarce places and the loose soil restricts any form of transport, the camel is considered the ship of the desert because it helps people to carry their stuff from one corner to another.

Q68. Answer: (a) Rs. 1,250

Given:

Difference between selling prices = 1800 - 1750 = 4% gain on Cost Price

Concept:

Profit is calculated on cost price, where Profit = Selling price - Cost price

Calculation:

SP1 - SP2 = 4% of CP

=> 1800 - 1750 = 4% of CP

=> 1% of CP = 50/4

=> 100% of CP = 50/4 × 100

YourMockTest.com — Free Study Material

Therefore 100% of CP = Rs.1250

The cost price of the table is Rs.1250.

Q69. Answer: (c) 10 cm

Given:

Area of a rhombus = 96 cm2

One diagonal = 16 cm

Formulas used:

Concept: The diagonals of a rhombus are perpendicular bisectors.

Area of a rhombus = 1/2 × Diagonal1 × Diagonal2

Side of rhombus = √[(D1/2)2 + (D2/2)2]

=> (1/2) × √[(D1)2 + (D2)2]

Calculation:

According to the question

96 = 1/2 × 16 × Diagonal2

=> Diagonal2 = 12

Now, Side of rhombus = 1/2 × √[16² + 12²]

Therefore 1/2 × 20 = 10 cm

Q70. Answer: (c) A = P + SI

Given:

A - Amount, P - Principal, SI - Simple Interest

Formulas used:

Simple interest is calculated on Principal sum.

Simple Interest = Principal × Rate/100 × Time

Amount = Principal + Simple Interest

Therefore A = P + SI

Q71. Answer: (d) Tamil Nadu

The correct answer is Tamil Nadu.

Key Points

• The Pongal Bird Count is an initiative of Tamil Nadu.

• It is an annual bird monitoring program where people are asked to observe birds for a minimum of 15 minutes and record the sightings.

• The sightings, listings, and documentation are uploaded on an online platform (ebird).

• The ebird.org is an online platform for bird watchers to register their observations in a systematic manner.

• The event is coordinated by Tamil Birders Network and Bird Count India.

• The participants can choose any site of their interest for the count.

• They can either travel to a nearby forest or lake or even do a count from their balcony or terrace.

• Through PBC, one can assess the growth and distribution of bird species, migratory and behavior patterns, apart from spreading awareness towards the conservation of avian species.

Additional Information

• State Bird of Madhya Pradesh- Indian paradise flycatcher

• State Bird of Rajasthan- Great Indian bustard

• State Bird of Andhra Pradesh- Indian roller

• State Bird of Tamil Nadu- Common emerald dove

Q72. Answer: (c) Joint Inspection Unit

The correct answer is Joint Inspection Unit.

Key Points

• The Joint Inspection Unit is the external oversight body of the United Nations system.

• It has a mandate to conduct evaluations, inspections, and investigations system-wide.

• The primary function is to look at cross-cutting issues and to act as an agent for change across the United Nations system.

YourMockTest.com — Free Study Material

• It works to secure management and administrative efficiency and to promote greater coordination both between UN agencies and with other internal and external oversight bodies.

• The Unit operates with respect to the legislative organs and the secretariats of those specialized agencies and other international organizations, within the United Nations system, that have accepted its Statute.

• These entities are often referred to as the JIU participating organizations (PO).

• JIU has a total of 28 participating organizations that play a crucial role in how the Unit functions.

Additional Information

• Inspector Jorge Flores Callejas (Honduras)- Chair of the Unit.

• Inspector Gönke Roscher (Germany)- Vice- Chair of the Unit.

Q73. Answer: (a) Aravali

The correct answer is Aravali.

Key Points

• Aravali hills have an Indian desert to its western margin.

• Aravalli Range is in Northern-Western India. It passes through Delhi, Haryana, Rajasthan, and Gujarat.

• The Indian desert (Thar desert) lies towards the western margins of the Aravali Hills.

• It has a sandy plain covered with sand dunes. It has an arid climate with low vegetation cover.

Important Points

• Please note that the Aravalli Range is the oldest range of Fold Mountains in India.

• The range is divided into two sections:

• the Sambhar-Sirohi range

• the Sambhar-Khetri range

• Guru Peak on Mount Abu is the highest peak in the Aravalli Range and it is located in the Sambhar-Sirohi range.

Additional Information

• Kanchenjunga is the third highest mountain in the world with an elevation of 8,586 meters.

• The Palani Hills are a mountain range in the southern Indian states of Kerala and Tamil Nadu.

• Mount Dhupgarh is the highest point in the Mahadeo Hills, Madhya Pradesh

Q74. Answer: (b) 3/7

Follow BODMAS rule to solve this question, as per the order given below,

Calculation:

{((7/2÷ 5/2 × 3/2))/((7/2÷ (5/2 × 3/2)))}÷ 5.25

=> {(7/2 × 2/5 × 3/2)/(7/2 × 4/15)} ÷ 5.25

=> {(21/10)/(14/15)} ÷ 5.25

=> {21/10 × 15/14} ÷ 5.25

=> {9/4} ÷ 5.25

=> 9/4 × 1/5.25

=> 9/4 × 100/525

=> 3/7

Therefore The required result = 3/7

Q75. Answer: (a) Unique IP Address

The correct answer is Unique IP Address.

Key Points

• Unique IP Address is needed to access the Internet.

• A Unique IP (Internet Protocol) is a unique identifier given to every machine in a network.

• It serves two primary functions-

• It is used as an interface identification for a network of machines.

• It provides a location of that machine, just as a postal address of the home.

Important Points

• When the Internet Protocol was originally designed, an IP consisted of a 32-bit number and the system was known as Internet Protocol Version 4.

• Internet Protocol Version 6 is a newer version of IPV4. It uses 128 bits for the IP address and supports more levels of addressing

hierarchy.

• Please do not get confused with the option 'email'. The internet is required to access email, not the other way round.

• Whereas, Unique IP Address is required to access the internet.

Q76. Answer: (a) 43^(rd)

The correct answer is 43rd.

• India ranked 43rd in the list of most competitive economies in the world in the IMD World Competitiveness Rankings 2019.

• This was an improvement of one place from the 2018 ranking in which it had finished 44th.

• The IMD World Competitiveness Ranking was established in 1989. It includes 235 indicators from each of the 63 ranked economies.

• The report considers some important figures including unemployment, GDP and government spending on health and education.

Key Points

• The information required for ranking is broadly divided into four categories:-

• Economic performance

• Infrastructure

• Government efficiency

• Business efficiency

Additional Information

• Innovation, digitalization, welfare benefits, and social cohesion are key to economic performance in the 2021 rankings, topped with Switzerland (1st), Sweden (2nd), Denmark (3rd), the Netherlands (4th), and Singapore (5th).

• Please note that India has maintained the 43rd rank in the IMD World Competitiveness Index 2021.

Q77. Answer: (c) 500

Calculation:

Sum of the number of laptops and mobiles sold = 500 + 600 = 1100

Sum of the number of Radio, Tvs and watches sold = 100 + 300 + 200 = 600

=> The difference in the no of laptops and mobiles sold in comparison to the no of other products = 1100 - 600 = 500

Therefore The required result = 500

Q78. Answer: (a) 15, 20

Given:

x prop. to y

=> x = ky [k is a constant]

Calculation:

When x = 10; y = 15

=> 10 = 15k

=> k = 2/3

Option 1: For x = 15; y = 20

=> 15 = 20k

=> k = 3/4 ≠ 2/3

Option 2: For x = 8; y = 12

=> 8 = 12k

=> k = 2/3

Option 3: For x = 25; y = 37.5

=> 25 = 37.5k

=> k = 25/37.5 = 2/3

Option 4: For x = 2; y = 3

=> 2 = 3k

=> k = 2/3

Therefore All except option 1, satisfy the value of k. So 15, 20 cannot be the corresponding values of x and y.

Q79. Answer: (a) 2^8

Given:

[{(2)2}2]2

Formula used:

$(a^n)^m = a^{(nm)}$

Calculation:

[{(2)2}2]2

$=> [\{2^{(2\times)^2}\}]^2$

$=> [2^4]^2$

$=> 2^{(4\times)^2}$

=> 2^8

Therefore [{(2)2}2]2 = 28

Q80. Answer: (a) Brahmaputra

The correct answer is Brahmaputra.

Key Points

• India's largest river island, Majuli is located in the Brahmaputra, Assam.

• It is also called the cultural capital of Assam.

• The island was formed due to the diversion of the Brahmaputra River and its tributaries (mainly a tributary of the Lohit).

• In 2016, it became the first island to become a district in India.

• The island is mainly inhabited by tribals. The tribal communities include the Misings, the Deoris and the Sonowal Kacharis.

• The main festival in Majuli city is called Raas.

Additional Information

• Brahmaputra river originates under the name of Siang or Dihang, from the Chemayungdung glacier of the Kailash range near the Mansarovar lake.

• Indus river originates in the Tibetan Plateau near Lake Manasarovar.

• Narmada river originates in the Amarkantak Plateau of the Maikala range in the district Shahdol of Madhya Pradesh.

• Beas river originates in the Rohtang Pass in the western (Punjab) Himalayas.

Q81. Answer: (d) 126

Logic: Sum of Positional Values.

Letters	E	X	A	G	G	E	R	A	T	I	O	N
Positional Values	5	24	1	7	7	5	18	1	20	9	15	14
Sum of Positional Values	5 + 24 + 1 + 7 + 7 +5 + 18 + 1 + 20 + 9 + 15 + 14 = 126											

Hence, 126 is the correct answer.

Q82. Answer: (b) State Bank of India

The correct answer is State Bank of India.

• State Bank of India is the largest public sector bank in India.

• It is the largest bank in India, with a 23% market share by assets and 25% of the total loan and deposit market.

Key Points

• History of establishment

• The State Bank of India originated in the first decade of the nineteenth century with the establishment of the Bank of Calcutta in Calcutta on 2 June 1806.

• Three years later, its name was changed to Bank of Bengal.

• The Bank of Bombay (15 April 1840) and the Bank of Madras (1 July 1843) followed the Bank of Bengal.

YourMockTest.com — Free Study Material

• These three banks were amalgamated on 27 January 1921 as Imperial Bank of India.

• The Government of India nationalized the Imperial Bank of India in the year 1955, in which the Reserve Bank of India took a 60% stake and the name was changed to State Bank of India.

• SBI's share of the Reserve Bank was transferred to the government in 2007.

Additional Information

• Chairmen of Banks:

• Bank Of India - Atanu Kumar Das

• State Bank Of India - Dinesh Kumar Khara

• Bank Of Baroda - Hasmukh Adhia

• Central Bank Of India - Matam Venkata Rao

Q83. Answer: (c) 1^(st)July 2017

The correct answer is 1st July 2017.

• The Goods and Services Tax (GST) was implemented on 1 July 2017.

• To implement GST, the Constitutional (122nd Amendment) Bill (abbreviated CAB) was introduced in the Parliament and passed by Rajya Sabha on 03 August 2016 and Lok Sabha on 08 August 2016.

Key Points

• Goods and Services Tax (GST) is a uniform indirect tax levied on goods and services across India.

• It has replaced central taxes like central excise, service tax, additional duties of excise & customs, special additional duties of customs, besides cesses and surcharges, on supply of goods and services.

• The objectives of GST-

• To achieve the ideology of ‘One Nation, One Tax’.

• To subsume a majority of the indirect taxes in India.

• To eliminate the cascading effect of taxes.

• To curb tax evasion.

• To increase the taxpayer base.

• Online procedures for ease of doing business.

• To promote competitive pricing and increase consumption.

Important Points

• There are three taxes applicable under this system:

• CGST: It is the tax collected by the Central Government on an intra-state sale.

• SGST: It is the tax collected by the State government on an intra-state sale.

• IGST: It is the tax collected by the Central Government for an inter-state sale.

Q84. Answer: (c) Indian National Congress

The correct answer is Indian National Congress.

Key Points

• The first Round Table Conference was held in London between November 1930 and January 1931.

• There were political leaders from British India and delegates from the native princely states.

• Mohammad Ali Jinnah and B.R Ambedkar were also the participants.

• The Indian National Congress did not take part in the First Round Conference.

• The reason for boycotting the conference was that Congress leaders were imprisoned for their involvement in the Civil Disobedience Movement.

• During this, the demand for "Swaraj" was also started.

Additional Information

• The conference was considered a failure because many reforms were not implemented.

• However, Lord Irwin requested Gandhi to discontinue the Civil Disobedience Movement and invited him to the Second Round Table Conference.

• It was decided that the government would withdraw all cases that did not involve violence.

• In addition, the government will release all persons serving a sentence of imprisonment for their activities in the Civil Disobedience Movement.

YourMockTest.com — Free Study Material

Q85. Answer: (c) 1

Given:

(sin A + cos A)2 - 2sin A cos A

Formulas used:

$(a + b)^2 = a^2 + b^2 + 2ab$

$\sin^2A + \cos^2A = 1$

Calculation:

(sin A + cos A)2 - 2sin A cos A

=> sin2A + cos2A + 2sin A cos A - 2sin A cos A

=> 1 + 2sin A cos A - 2sin A cos A

=> 1

Therefore The required value = 1

Alternate MethodBy Value Putting Method

For A = 45°

(sin A + cos A)2 - 2sin A cos A

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

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

=> 2 - 1 = 1

Q86. Answer: (b) DYBFKMDOBF

Given: FRAGRANCE is written as ESZHQBMDD.

Logic: Alternate subtraction and addition of 1 in the positional value of the alphabets as shown below:

Similarly,

Hence, the correct answer is "DYBFKMDOBF".

Q87. Answer: (c) Paternal Aunt

From the given information,

(1) Manoj is the husband of Sapna, whose mother is Neelam.

(2) Shefali is the daughter of Vijay who is the brother of Manoj's wife.

(3) Neelam's grandson is Aditya, who is the brother of Shefali. Therefore, the final family tree is:

Hence, Sapna is the paternal aunt of Shefali.

Q88. Answer: (c) 729

Given: {((3A6)D(6B3))E((6B4)A(3B2))}C=?

Logic:

Symbols	C	A	B	D	E
Meaning	cube	•	•	×	÷

By inserting codes and then using BODMAS Rule:

$\{((3 + 6) \times (6 - 3)) \div ((6 - 4) + (3 - 2))\}^3$

$= \{(9 \times 3) \div (2 + 1)\}^3$

$= \{27 \div 3\}^3$

$= \{9\}^3$

= 729

Hence, 729 is the correct answer.

Q89. Answer: (a) [figure]

Given:

The logic follows here is:

In every step, Figure is rotating horizontally and addition of a different image taking place.

Therefore, in answer figure the right angled triangle should be at left hand side and isosceles triangle should be at right hand side.

The complete series is:

Hence, option (1) is the correct answer.

YourMockTest.com — Free Study Material

Q90. Answer: (d) [figure]

Given: Cardboard boxes, Glass tumblers, Wooden stools.

Logic:

There is nothing common between Cardboard boxes, Glass tumblers, and Wooden stools.

Hence, option (4) is the correct answer.

Q91. Answer: (b) f

Given series: QwE@rTy;MnB#vCx/DfG*hJk

When Reversed → kJh*GfD/xCv#BnM;yTr@EwQ

The letter that precedes the letter D → kJh*GfD/xCv#BnM;yTr@EwQ is f.

Hence, f is the correct answer.

Q92. Answer: (b) Director

Given: Book : Author :: Movie :

Logic:

Author writes a Book.

Similarly,

Director directs a Movie.

Hence, director is the correct answer.

Q93. Answer: (c) [figure]

Logic: Let the line AB be the mirror.

Hence, option (3) is the correct answer.

Q94. Answer: (d) 33

Given:

River with higher pollution = River D

Calculation:

BOD level mg/l in 2005 of river D = 66

BOD level mg/l in 2006 of river D = 99

Therefore Increase in the BOD level mg/l = 99 - 66 = 33

Q95. Answer: (b) 1 : 1

Calculation:

Total number of unemployed females across the 6 cities = (50 + 60 + 70 + 50 + 30 + 80) = 340 (in thousands)

Total number of unemployed males across the 6 cities = (50 + 60 + 50 + 40 + 60 + 80) = 340 (in thousands)

Therefore The required ratio = 340 : 340

=> 1 : 1

Q96. Answer: (a) Artist

Six persons - teacher, lawyers, doctor, politician, artist and writer.

(1) The lawyer and the writer are not sitting next to each other.

(2) The teacher is sitting between the doctor and the lawyer.

(3) The politician is sitting next to the doctor.

Hence, Artist is sitting between the lawyer and the writer.

Q97. Answer: (c) Ligament

Given: Petal, Sepal, Pollen, Ligament.

Logic:

Petal, Sepal, and Pollen are all the parts of a Flower.

Whereas,

Ligament is a body part of the Human Beings.

Important Points

Petal: The parts of a flower that are often conspicuously colored.

YourMockTest.com — Free Study Material

Sepal: The outer parts of the flower (often green and leaf-like) that enclose a developing bud.

Pollen: a fine powdery substance, typically yellow, consisting of microscopic grains discharged from the male part of a flower or from a male cone.

Ligaments are bands of tough elastic tissue around your joints.

Hence, ligament is the odd one out.

Q98. Answer: (a) Spanish

A college offers two papers to a student.

(1) If a student studies Philosophy, he or she must study French.

(2) One who studies History cannot choose Psychology and only History students can study Political Science.

Subject 1	Subject 2
Philosophy	French
History	Political Science
French	
Psychology	

(3) French students cannot study History and French students cannot opt for Spanish.

(4) No Psychology student has opted for Sociology.

Subject 1	Subject 2
Philosophy	French
History	Political Science
French	Sociology
Psychology	Spanish

Hence, Psychology student have to study Spanish.

Q99. Answer: (b) RXLONRHTL

Given: REGULATION is written as QDFTKZSHNM.

Logic: By decreasing positional value by 1, as shown:

Similarly,

Hence, RXLONRHTL is the correct answer.

Q100. Answer: (a) Identical

Given: Direct : Indirect :: Different : ?

Logic:

The opposite of Direct is Indirect.

Similarly,

The opposite of Different is Identical.

Hence, Identical is the correct answer.

Important PointsIdentical means similar in every detail; exactly alike.

Inconsistent means acting at variance with one's own principles or former behaviour.

Indistinct means not clear or sharply defined.

Inanimate means showing no sign of life; lifeless.

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

YourMockTest.com — Free Study Material