NTPC CBT-II 2016 Official Paper (Held On: 18 Jan, 2017 Shift 2) (Previous Year Paper)

RRB NTPC • 2016 • 120 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/ntpc-cbt-ii-2016-official-paper-held-on-18-jan-2017-shift-2-previ…

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

YourMockTest.com — Free Study Material

FULL TEST

Q1. A bag contains notes of Rs. 10, Rs. 20, and Rs 50 in the ratio of 1 : 3 : 5. If the total value of money in the bag is Rs. 1920. Find the number of Rs. 20 notes.

(a) 6
(b) 30
(c) 18
(d) 12

Q2. Write 95 out of 200 as a percentage.

(a) 42.5%
(b) 47.5%
(c) 45%
(d) 95%

Q3. Who was called the 'The Lady with the Lamp'?

(a) Madame Cama
(b) Florence Nightingale
(c) Annie Besant
(d) Sarojini Naidu

Q4. Rusting of Iron is a common example of:

(a) Physical Change
(b) Exothermic Change
(c) Endothermic Change
(d) Chemical Change

Q5. If Lalitha leaves home and drives to her school at a speed of 45 kmph, she reaches 5 minutes later than when she drives at 60kmph speed. Find the distance to her school (in km).

(a) 18
(b) 15
(c) 14
(d) 10

Q6. Who has the authority to decide in the event of dispute in election of the President of India?

(a) Lok Sabha
(b) Election Commissioner
(c) Prime Minister
(d) Supreme Court

Q7. Find 'X' if the below three numbers are in proportion.

2.6, 1.3, X

(a) 1.95
(b) 1.83
(c) 3.9
(d) 0.65

Q8. When was the Indus Water Treaty, which featured in news recently, signed by India and Pakistan?

(a) 1947
(b) 1951
(c) 1954
(d) 1960

Q9. Girish can paint a picture in 4 days when he works for 8 hours per day. Due to illness, he could work for only 6 hours per day and was required to finish painting 7 such pictures. How many days would Girish take to finish the work?

(a) 28
(b) 371/3
(c) 392/5
(d) 32

Q10. Below are given statements followed by some conclusions. You have to take the given statements to be true even if they seem to be at variance with the commonly known facts and then decide which of the given conclusions logically follow(s) from the given statements.

Statements:

1. Use of electronic book reading has increased considerably during the recent times.

2. Printed books are costly.

Conclusions:

I. Nobody reads books nowadays.

II. Electronic book reading is gaining popularity.

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

Q11. What will be the next number in the series?

2, 5, 11, 23, 47, ?

(a) 95
(b) 94
(c) 48
(d) 74

Q12. Which is the longest railway tunnel in India?

(a) Natuwadi Tunnel
(b) Pir Panjal Tunnel
(c) Karbude Tunnel
(d) Berdewadi Tunnel
(e) T-49 Tunnel

Q13. Rama is taller than Geetha. Vimala is taller than Rama but shorter than Meenu. Bindu is taller than Geetha but shorter than Rama. Who among the given people is the shortest?

(a) Rama
(b) Bindu
(c) Vimala
(d) Geetha

YourMockTest.com — Free Study Material

Q14. What is a Red Data Book (also called as a Red List)?

(a) Document detailing highly polluted zones
(b) Document relating to Seismic zones
(c) Document relating to drought regions
(d) Document detailing rare and endangered species of animals, plants etc

Q15. 'A' invests Rs. 10,000 for 3 years at a certain rate of interest. At the end of the second year. it amounts to Rs. 11,664. Calculate the rate of interest per annum, if interest is compounded annually.

(a) 7.9
(b) 8.5
(c) 8.7
(d) 8.0

Q16. Find the difference between the smallest number of five digits and greatest number of four digits?

(a) 3
(b) 2
(c) 0
(d) 1

Q17. Where is the National Geophysical Research Institute located?

(a) Jamshedpur
(b) Hyderabad
(c) Mumbai
(d) Jaipur

Q18. For which English County did Sachin Tendulkar play?

(a) Lancashire
(b) Essex
(c) Yorkshire
(d) Surrey

Q19. Which of the following is NOT a plant product?

(a) Jute
(b) Rubber
(c) Teak
(d) Honey

Q20. The second most abundant element on Earth's crust is:

(a) Oxygen
(b) Carbon
(c) Silicon
(d) Hydrogen

Q21. Four bells ring at 16, 24, 36, 42 minute intervals. If they ring together at 6.00 a.m. after how long would they next ring together?

(a) 842 minutes
(b) 964 minutes
(c) 886 minutes
(d) 1008 minutes

Q22. Four terms are in proportion. The first, second and fourth terms are 4, 22 and 33. Find the third term.

(a) 8
(b) 6
(c) 11
(d) 3

YourMockTest.com — Free Study Material

Q23. Halley's comet appears once in approximately how many years?

(a) 84
(b) 76
(c) 24
(d) 48

Q24. Who won the 2016 Formula-1 Rolex Australian Grand Prix?

(a) Lewis Hamilton
(b) Sebastian Vettel
(c) Nico Rosberg
(d) Felipe Massa

Q25. In how many cities did Maharaja Jai Singh II build Jantar Mantar?

(a) Five
(b) Three
(c) One
(d) Two

Q26. Book : Author : : Furniture : ?

(a) Tools
(b) Woodcutter
(c) Wood
(d) Carpenter

Q27. What will be the next term in the series?

I, V, X, L, C, D, ?

(a) XD
(b) CD
(c) LX
(d) M

Q28. A question and three statements labeled (I), (II) and (III) are given. You have to decide which statement(s) is/are sufficient to answer the question.

How far is Sasa's School?

I. Sasha is girl studying in standard 9.

II. Sasa's mother drop her first at school and reaches her office which is 10Km away.

III. Sasa takes 15 Minutes travelling by bus and 30 minutes by cycle.

(a) I, II and III are sufficient
(b) Data insufficient
(c) I and III together are sufficient
(d) II and III together are sufficient

Q29. If a dozen apples weigh 1.8 kg in total, how many apples will be there in 3 boxes weighing 23.250 kg each?

(a) 280
(b) 155
(c) 465
(d) 215

Q30. If & means '+', $ means '-' # means '÷' % means 'x', then the value of

8 % 2 & 11 $ 24 & 24 # 6

(a) -1
(b) 4.5
(c) 92
(d) 7

YourMockTest.com — Free Study Material

Q31. 10% of a product's cost price is Rs. 1245.80. What would be the selling price if the product is sold at a loss of 15% (rounded off to the nearest rupee)

(a) 12,458
(b) 10,589
(c) 14,327
(d) 14,657

Q32. Ustad Ali Ahmed Hussain Khan, who passed away recently was a famous _____.

(a) Santoor Player
(b) Tabla Player
(c) Sarod Player
(d) Shehnai Player

Q33. Hard : Stone : : Soft : ?

(a) Feather
(b) Shine
(c) Moon
(d) Sand

Q34. When was the first general elections in Independent India held?

(a) 1950
(b) 1951-52
(c) 1947-48
(d) 1953

Q35. Who is the current (2018)Chief of the Indian Army?

(a) Arup Raha
(b) Dalbir Singh Suhag
(c) Sunil Lamba
(d) Bipin Rawat

Q36. 160 cycles were sold for Rs. 524,000 resulting in a loss of 10%. What was the cost price of a cycle (in Rs.)? (rounded off to the nearest rupee)

(a) 3275
(b) 3639
(c) 4321
(d) 4763

Q37. Which Article of our Constitution states that 'the Speaker shall have an exercise a casting vote in the case of an equality of votes?

(a) Article 101
(b) Article 99
(c) Article 97
(d) Article 100

Q38. A question and three statements labeled (I), (II) and (III) are given. You have to decide which statement(s) is/are sufficient to answer the question.

What is Surya's age?

I. Surya and his sister are the only children in Ramesh's home.

II. Surya's sister is elder to him by 5 years.

III. Surya's sister just turned 15 this year.

(a) II and III are sufficient.
(b) I, II, III together are needed.
(c) Given data is insufficient.
(d) II alone is sufficient.

YourMockTest.com — Free Study Material

Q39. On what day did the Civil Disobedience Movement start?

(a) 21^(st) May 1931
(b) 10^(th) May 1930
(c) 12^(th)March 1930
(d) 13^(th)March 1931

Q40. If 2 is denoted by '[', 4 is denoted by '=', 9 is denoted by '-' and 0 is denoted by '+', what is '=[-+'?

(a) 4290
(b) 4092
(c) 4209
(d) 9204

Q41. Which of the following is a tributary of the river Ganga?

(a) Beas
(b) Gandak
(c) Tungabhadra
(d) Manas

Q42. Based on the scenario given, choose the decision from the options which would be most suitable.

For a first time offence by an employee at the factory, the manager can either dismiss the employee, impose a large fine or give a written warning. J, the accountant misappropriated an amount of Rs. 1200 This was J's first offence. What should his manager do?

(a) Terminate J from his job.
(b) Impose a fine of Rs. 5 on J.
(c) Call for a meeting and congratulate his behaviour.
(d) Call J over the phone and warn him.

Q43. Where is the Diesel Locomotive Works located?

(a) Irugur
(b) Chittaranjan
(c) Varanasi
(d) Secunderabad

Q44. Where was the International Sand Art festival, 2015 held?

(a) Rushikonda beach, Andhra Pradesh
(b) Chandrabhanga beach, Odhisha
(c) Digha beach, West Bengal
(d) Karwar beach, Karnataka

Q45. Solve: (1.13 + 5.884)/2.004 =

(a) 3.44
(b) 3.05
(c) 2.95
(d) 3.50

Q46. Which of the following organisms releases molecular oxygen into water?

(a) E.coli
(b) Amoeba
(c) Salmonella enterica
(d) Phytoplankton

Q47. Production of silk originated in:

(a) Egypt
(b) China
(c) Japan

YourMockTest.com — Free Study Material

(d) India

Q48. In a class of 60 students, 60% are boys, If 25% of the girls come to school by bicycle, find the number of girls who don't come to school by bicycle ?

(a) 24
(b) 27
(c) 18
(d) 36

Q49. Jeeva purchased an article for Rs. 2500 and sold it at 25% above cost and paid a tax of Rs. 125. Find the post-tax profit in rupees.

(a) 500
(b) 550
(c) 475
(d) 625

Q50. Find the odd one out:

School, Principal, Teacher, Student.

(a) School
(b) Teacher
(c) Student
(d) Principal

Q51. Which of the following is an odd composite number?

(a) 13
(b) 17
(c) 12
(d) 15

Q52. Based on the scenario given, choose the decision from the options which would be most suitable.

Research shows that playing outdoors improves the overall health of kids. Nowadays kids do not find time to play outdoors.

Parents should....

(a) encourage indoor games.
(b) not send the kids to school.
(c) make playing outdoors compulsory.
(d) re-schedule their office hours so they get more time to play with the kids.

Q53. What does RAW stand for?

(a) Regional Aviation Wing
(b) Research and Analysis Wing
(c) Royal Agency of Warsaw
(d) Read After Writing

Q54. What is used to identify users who come back to a webpage?

(a) Cookies
(b) Username
(c) Cache
(d) Password

Q55. Which among the following converts chemical energy to electrical energy?

(a) Motor
(b) Dynamo
(c) Battery
(d) Generator

YourMockTest.com — Free Study Material

Q56. Which women's doubles pair won the '2015 China Open' tennis tournament?

(a) Casey Dellacqua / Yaroslava Shvedova
(b) Martina Hingis / Sania Mirza
(c) Bethanie Mattek-Sands / Elena Vesnina
(d) Chan Hao-ching / Chan Young-jan

Q57. Bengal Sati Regulation, 1829 was brought out by which Governor General?

(a) Edward Law
(b) Lord William Bentinck
(c) Sir Henry Hardinge
(d) William Butterworth Bayley

Q58. The ratio between the length and breadth of a rectangular board is 7 : 5. If the breadth is 20.5 cm, find the length in cm.

(a) 19.9
(b) 24.3
(c) 28.7
(d) 14.6

Q59. A trader purchased 132 dozens of mangoes at Rs. 475 per dozen and could sell only 125 dozens at Rs. 530 per dozen. What is the value of stock of mangoes in hand (in rupees)?

(a) 3325
(b) 4250
(c) 3710
(d) 4620

Q60. What would be 10 + 3 - 6, if '+' becomes '-' and '-' becomes '×; ?

(a) 42
(b) -8
(c) 8
(d) 78

Q61. Solve (3.2 × 10^4)÷ (2 × 10^5)

(a) $16/(10^2)$
(b) 0.016
(c) 1.6
(d) 1.06

Q62. What is the program that translates source code into object code called?

(a) Executor
(b) Compiler
(c) Translator
(d) Interpreter

Q63. For a trophy, 16 teams participate, numbered 1-16 according to their rankings.

In the qualifier matches, the teams face their immediate next power ranked team. e.g. team-1 plays team-2, team-3 plays team-4 and so on. It has been observed that the lower ranked team always wins. Which two teams might play a semi-final match?

(a) Team-12 and Team-16
(b) Team-7 and Team-8
(c) Team-2 and Team-4
(d) Team-8 and Team-16

YourMockTest.com — Free Study Material

Q64. A trip from Mumbai to Pune takes 4 hours 30 minutes at a speed of 60 km/hr. How long (in hours) will it take to complete, if the speed is 15 m/sec?

(a) 3 3/4
(b) 5
(c) 4 2/3
(d) 4

Q65. Look at the below pattern and complete the series:

11, 15, 22, 26, 33, 37, 44, ?

(a) 45
(b) 50
(c) 55
(d) 48

Q66. 'Great Bear' is the name of a:

(a) Galaxy
(b) Moon
(c) Constellation
(d) Star

Q67. Select the correct combination of mathematical signs from the options given to replace # signs and get a balanced equation.

24 # 8 # 4 # 10 # 2

(a) - ÷ + =
(b) • = + -
(c) = × - +
(d) + × = +

Q68. Who is the principal regulatory authority for stock market in India?

(a) RBI (Reserve Bank of India)
(b) Supreme Court
(c) SEBI (Securities and Exchange Board of India)
(d) Finance Ministry

Q69. Which Strait divides Indian and Sri Lanka?

(a) Nemuro Strait
(b) Bass Strait
(c) Duncan Passage
(d) Palk Strait

Q70. Who was awarded the first United States patent in 1846 for the modified version of sewing machine?

(a) Elias Howe
(b) Alessandro Volta
(c) Ernest Rutherofrd
(d) John Napier

Q71. A cyclist covers a distance of 14 km in 25 minutes. How much distance will he cover in 18 minutes (in km)?

(a) 9.4
(b) 9.78
(c) 10.26
(d) 10.08

YourMockTest.com — Free Study Material

Q72. Which among the below set of colours are generally known as the primary colours of light?

(a) White, Yellow, Blue
(b) Red, Green, Blue
(c) Red, Green, Black
(d) Black, White, Red

Q73. Which of the following pollutants in water causes 'Minamata' disease?

(a) Salmonella
(b) Methyl Mercury
(c) Lead
(d) Perchlorate

Q74. The process of converting wet waste to manure is called:

(a) Incineration
(b) Conservation
(c) Metabolism
(d) Composting

Q75. Find the period when simple interest on Rs. 4000 at 6% per annum will be Rs. 400.

(a) 20 months
(b) 22 months
(c) 14 months
(d) 18 months

Q76. If 'P' is the amount invested at 5% p.a. compounded half yearly for 2 years. what would be the amount received at the end of 2 years?

(a) P(1.025)^4
(b) P(1.1)
(c) $P(1.05)^2$
(d) $P(1.025)^2$

Q77. At 2'O clock, the hands of a clock make an acute angle and a reflex angle. How much is the reflex angle (in degrees)?

(a) 225°
(b) 275°
(c) 300°
(d) 180°

Q78. In ancient times, what was Awadh (Oudh) known as?

(a) Kosala
(b) Kapilavastu
(c) Kaushambi
(d) Kashi

Q79. What series of alphabet place values will be proper to write the word LOAN?

(a) 13, 16, 1, 12
(b) 12, 14, 1, 15
(c) 12, 15, 1, 14
(d) 21, 12, 2, 18

Q80. How many chambers are present in the heart of a fish?

(a) One
(b) Three
(c) Four
(d) Two

YourMockTest.com — Free Study Material

Q81. What is the minimum age qualification to become Chief Minister of any State in India?

(a) 25
(b) 28
(c) 24
(d) 21

Q82. Hira decides to pack 165 mangoes in boxes that can hold 18 each. She decided to carry only fully filled mango boxes and give away the rest. Find how many mangoes Hira will give away.

(a) 7
(b) 13
(c) 9
(d) 3

Q83. Who was the owner of 'Gujarat Lions' in IPL 2016?

(a) Keshav Bansal
(b) Jay Mehta
(c) Suresh Raina
(d) Subrato Roy

Q84. Shipra set out to her grandmother's home. She leaves her house and first took a left turn. Then she took a right turn and a right and a left and a right and was standing in front of her grandmother's door enterance. If shipra's house is facing East, what direction is her grandmother's home door facing?

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

Q85. Rearrange the jumbled letters to make a meaningful English word and then select the word which is different from the rest.

(a) OHOT
(b) ETRE
(c) OTOR
(d) DESE

Q86. 'K' can do 3/4^(th)of a work in 6 days and 'J' can do 2/5^(th)of the same work in 4 days. How long (in days) will they take, if they together to finish the work?

(a) 4 2/3
(b) 4 3/8
(c) 4 1/4
(d) 4 4/9

Q87. The LCM of two numbers is 40 times its HCF. If the product of the numbers is 1440, find their HCF.

(a) 6
(b) 12
(c) 15
(d) 8

Q88. Who patented the three-position traffic signal in 1923?

(a) Garrett Morgan
(b) J.P. Knight
(c) George Eastman
(d) Robert Adler

YourMockTest.com — Free Study Material

Q89. Which State in India was the largest sugarcane producer (2015-16)?

(a) Uttar Pradesh
(b) Karnataka
(c) Maharashtra
(d) Tamil Nadu

Q90. In which year was Goa given the option of merging with the state of Maharashtra?

(a) 1963
(b) 1967
(c) 1959
(d) 1958

Q91. If '*' represents 12, '@' represents 48, '$' represents 24, and '!' represents 6, then what mathematical equation below will be equal to 90?

(a) • + $ ÷ @ - !
(b) • ÷ ! + $ × @
(c) $ ÷ * × @ - !
(d) $ × @ - ! × *

Q92. Find the number which does NOT belong to the group:

101, 242, 363, 484

(a) 242
(b) 484
(c) 363
(d) 101

Q93. Unicode provides:

(a) Uniform code for checking all computer programs
(b) Unique code to denote every computer company
(c) Codes for English language characters
(d) Unique code for every character of every language

Q94. Inch : Foot :: Meter : ?

(a) Kilometer
(b) Distance
(c) Centimeter
(d) Kilogram

Q95. In a party, every couple has at least one child (all minors) with them and there are 12 couples. Which one of the following inferences would be possible?

(a) There are a minimum of 24 males in the party.
(b) There are a minimum of 36 people in the party.
(c) There are only 12 males in the party.
(d) There are 22 females in the party.

Q96. The heights of 240 students of a school is tabulated below:

Height (Cm)	<100	<110	<112	<130	<140	<150
Number of students	12	30	65	180	218	240

How many Students are of height <130cms, but > 100cms?

(a) 150
(b) 168
(c) 180
(d) 192

YourMockTest.com — Free Study Material

Q97. GPS stands for ?

(a) Global Prime System
(b) Global Peace summit
(c) Global Postal System
(d) Global Positioning System

Q98. A milkman purchases 25 litres of milk from a diary for Rs. 800 and sells it at the rate of 33.50 per litre. What is the profit or loss %? (rounded off)

(a) Profit 4.7%
(b) Loss 4.8%
(c) Loss 5.1%
(d) Profit 5.3%

Q99. A rectangular water reservoir contains 42,000 liters of water. Find the depth of water in the reservoir, if the base measures 6m by 3.5m

(a) 1 m
(b) 2.5 m
(c) 3 m
(d) 2 m

Q100. Simplify: (a^(-1) + b^(-1)) ÷ (a ^(-2) - b ^(-2))

(a) ab/(b - a)
(b) (a+ b)/ab
(c) ab/(a - b)
(d) a/b

Q101. The Kailasanathar temple at Kanchipuram was built during the rule of:

(a) Pandyas
(b) Cholas
(c) Pallavas
(d) Cheras

Q102. Who was the President of the 'Independence for India league' formed in 1928?

(a) Rash Behari Bose
(b) Jawaharlal Nehru
(c) Srinivasa iyengar
(d) Subhas Chandra Bose

Directions

Study the given data and answer the questions that follow:

CULTIVATED AREA (in lakh hectares)

State	2011	2012	2013
Punjab	220	256	264
Haryana	120	108	151
Uttar Pradesh	100	143	128
Madhya Pradesh	40	85	90
Maharashtra	80	150	175
Rajasthan	30	26	24

YourMockTest.com — Free Study Material

Q103. How much more was the cultivated land in Uttar Pradesh compared to Rajasthan in 2012 (in lakh hectares)?

(a) 35
(b) 117
(c) 113
(d) 58

Q104. What is the difference in total cultivated land in all the 3 years put together between Maharashtra and Madhya Pradesh (in lakh hectares)?

(a) 135
(b) 34
(c) 190
(d) 174

Q105. What was the percentage increase of land under cultivation in Punjab in the year 2013 as against 2011?

(a) 20
(b) 16.36
(c) 25.8
(d) 22.33

Directions

In a class of 55 students, 40 like Science and 29 like Mathematics. If each student likes at least one subject, answer the following questions.

Q106. How many like only science?

(a) 29
(b) 15
(c) 26
(d) 19

Q107. How many like both Science and Mathematics?

(a) 15
(b) 14
(c) 13
(d) 12

Q108. In a certain code if AKBAR is written as CMDCT, how will JODHA be written?

(a) LMGJX
(b) LQFJC
(c) HMBFX
(d) WBQUN

Q109. In a general survey of 832 people, it was found that 624 owned a car. If a person is selected randomly, what is the probability that the person will not be an owner of a car?

(a) 1.33
(b) 0.25
(c) 0.75
(d) 0.40

Q110. From when is the proposed merger of our Railway budget with the General budget supposed to take place?

(a) 2017-18
(b) Not approved yet
(c) 2016-17
(d) 2018-19

YourMockTest.com — Free Study Material

Q111. Given the sides of a triangle as 3.4 cm and 5.2 cm, what can be length of the third side (x) in cm?

(a) 1.8 < x < 8.6
(b) > 8.6
(c) < 1.8
(d) 3.4 < x < 5.2

Q112. A bank pays simple interest at 4% per annum on the first Rs. 5500 and an interest of 6% for amounts above that. Find the interest earned by Sameera if she deposits Rs. 13,250 with the bank for 2 years.

(a) 1280
(b) 1370
(c) 840
(d) 1325

Directions

A family has the following people and their relationships are mentioned.

Read the data carefully and answer the questions that follow:

'A' is 'B"s sister.

'C' is ' D' s brother.

'E' is 'F"s father.

'G' is 'H"s mother.

'F' is 'D" sister.

'C' is ' G's son.

'B' is 'C"s daughter.

'C' is married to 'J'

Q113. How is 'B; related to 'E'?

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

Q114. How is 'D' related to 'B;

(a) Paternal uncle
(b) Paternal aunt
(c) Brother
(d) Cannot be determined

Q115. How many female members are there in the family?

(a) Minimum 5
(b) 5
(c) 6
(d) Maximum 6

Q116. Below are given statements followed by some conclusions. You have to take the given statements to be true even if they seem to be at variance with the commonly logically follow(s) from the given statements.

Statements:

1. All dogs are cats.

2. No cats are rats.

Conclusions:

I. All rats are dogs.

II. Some dogs are rats.

(a) Both I and II follow.
(b) Only I follows.

YourMockTest.com — Free Study Material

(c) Neither I nor II follows.
(d) Only II follows.

Q117. Solve $(1 - \tan^2\theta)/(\tan^2\theta)$
(a) $1 - \cot^2\theta$
(b) 2
(c) 0
(d) $\cot^2\theta - 1$

Q118. Which of the following received the World heritage tag by UNESCO in 2016?
(a) Mountain Railway of India
(b) Western Ghats
(c) Khangchendzonga National Park
(d) Chhatrapati Shivaji Terminus, Mumbai

Q119. What is the method of taxing wherein there is an increase in the tax rate as the taxable amount increases?
(a) Aggressive tax
(b) Digressive tax
(c) Progressive tax
(d) Regressive tax

Q120. Complete the alphabetical series choosing the most appropriate option given below. U, O, ?, E, A
(a) B
(b) T
(c) C
(d) I

ANSWER KEY

1	c	2	b	3	b	4	d	5	b	6	d	7	d	8	d	9	b	10	b
11	a	12	e	13	d	14	d	15	d	16	d	17	b	18	c	19	d	20	c
21	d	22	b	23	b	24	c	25	a	26	d	27	d	28	b	29	c	30	d
31	b	32	d	33	a	34	b	35	d	36	b	37	d	38	a	39	c	40	a
41	b	42	a	43	c	44	b	45	d	46	d	47	b	48	c	49	a	50	a
51	d	52	c	53	b	54	a	55	c	56	b	57	b	58	c	59	a	60	b
61	a	62	b	63	a	64	b	65	d	66	c	67	c	68	c	69	d	70	a
71	d	72	b	73	b	74	d	75	a	76	a	77	c	78	a	79	c	80	d
81	a	82	d	83	a	84	d	85	a	86	d	87	a	88	a	89	a	90	b
91	c	92	d	93	d	94	a	95	b	96	b	97	d	98	a	99	d	100	a
101	c	102	c	103	b	104	c	105	a	106	c	107	b	108	b	109	b	110	a
111	a	112	b	113	c	114	d	115	a	116	c	117	d	118	c	119	c	120	d

SOLUTIONS

Q1. Answer: (c) 18

Given:

A bag contains notes of Rs. 10, Rs. 20, and Rs 50 in the ratio of 1 : 3 : 5

The total value of money in the bag is Rs. 1920

Calculation:

Let number of notes of Rs. 10, Rs. 20, and Rs 50 be 1x, 3x, and 5x respectively

And the total value of money in the bag is Rs. 1920

=> (10 × 1x) + (20 × 3x) + (50 × 5x) = 1920

=> 320x = 1920

=> x = 6

Therefore The number of Rs. 20 notes = 3x

=> 3 × 6 = 18

Q2. Answer: (b) 47.5%

Calculation:

95 out of 200 as a percentage

=> (95/200) × 100

=> 47.5%

Q3. Answer: (b) Florence Nightingale

The correct answer is Florence Nightingale.

• The most famous nurse in history, Florence Nightingale is the founder of modern nursing.

• She is known as 'The Lady with the Lamp' – she played a significant role during the Crimean War between 1853 and 1856.

• She nursed wounded soldiers at night while carrying a lamp along with her, which led to the famous epithet.

Important Points

Madame Cama	**• Original name is Madam Bhikaiji Cama. - She was the first Indian to hoist an Indian flag on foreign land, Stuttgart in Germany. - She is known as the 'Mother of Indian Revolution' in Yemen. - She worked as a social worker during the Bombay Plague epidemic in 1897, she became ill herself and was sent to Britain in 1901 for treatment.**
Annie Besant	• Popularly known as Annie Wood. - She was a reputed theosophist, women's rights activist, writer, and orator. - In 1916, along with Lokmanya Tilak, she launched the Home Rule League. - She was selected as the first woman president of the Indian National Congress in 1917. - She was declared a World Teacher after her lecture on Theosophy in 1926.
Sarojini Naidu	• She is known as the Nightingale of India or "Bharatiya Kokila". - She played an important role in India's freedom struggle and promoted women's rights. Also a poet and a great politician. - In 1917, she established the Women's Indian Association (WIA). - The British government also awarded her the Kaisar-i-Hind Medal for her work during the plague epidemic in India. - She was the first woman Governor of India.

Additional Information

• In 1860, Florence Nightingale established her nursing school at St Thomas Hospital, London.

• It is the World's first nursing school that was in a hospital. Now it is a part of King's College, London.

• Some books written by the Sarojini Naidu are The Golden Threshold, Mohammad Jinnah: An Ambassador of Unity, The Indian Fantasy, The Royal Tombs of Golconda, The Snake Charmer, etc.

Q4. Answer: (d) Chemical Change

The correct answer is Chemical Change.

• Rusting is an oxidation reaction. When acidic substances (including water) come in contact with metals, such as iron and/or steel, it forms rust.

• Rust is the result of corroding steel after the iron (Fe) particles have been exposed to oxygen and moisture (e.g humidity, vapour, immersion).

• When steel is exposed to water, the iron particles are lost to the water's acidic electrolytes. The iron particles then become oxidized, which results in the formation of Fe^+^+.

• Two electrons are released and flow through the steel to another area of the steel known as the cathodic area.

• Balanced equation: 4Fe + 3O2 + 6H2O → 4Fe(OH)3.

Important Points

Physical Change	**• Changes in the size or shape of matter. - Melting an ice cube, Boiling water, Dissolving sugar, and water.**

YourMockTest.com — Free Study Material

Exothermic Change	• Exothermic reactions are reactions that release energy into the environment in the form of heat. - Exothermic reactions feel warm or hot or may even be explosive. - Any combustion reaction, the reaction between water and calcium chloride, the reaction between sodium sulfite and bleach, nuclear fission.
Endothermic Change	• An endothermic reaction is any chemical reaction that absorbs heat from its environment. - The reaction of barium hydroxide octahydrate crystals with dry ammonium chloride, Dissolving ammonium chloride in water, Mixing water with potassium chloride, Photosynthesis.

Additional Information

• Corrosion prevention processes include the use of paint or metallic coatings are the following:

• Hot-dip galvanizing.

• Zinc thermal spraying.

• Aluminium thermal spraying.

Q5. Answer: (b) 15

Given:

Lalitha leaves home and drives to her school at a speed of 45 kmph

She reaches 5 minutes later than when she drives at 60kmph speed

Formula used:

D × [(S2 - S1)/(S2S1)] = (T2 - T1)

Calculation:

Here, since reaches 5 minutes late, (T2 - T1) = 5 minutes = 5/60 hours

=> D × [(60 - 45)/(60 × 45)] = 5/60

=> D × (1/3) = 5

=> D = 15

Therefore Distance = 15 km

Let, the distance be x km

When speed is 60 km/h, total time to cover the distance = x/60 hours

When speed is 45 km/h, total time to cover the distance = x/45 hours

time difference = 5 min = 5/60 = 1/12 hour

Accordingly,

x/60 + 1/12 = x/45

=> x/45 - x/60 = 1/12

=> (4x - 3x)/180 = 1/12

=> x = 180/12 = 15

Therefore The distance to her school is 15 km.

Q6. Answer: (d) Supreme Court

The correct answer is Supreme Court.

• The Supreme court of India decides the disputes regarding the election of the President of India and the election of Vice President of India.

• It is incubated in Article 71(1) of our Indian constitution.

• The judges of the Supreme Court are appointed by the President.

Important Points

• Supreme Court came into existence on 26 January 1950 and is the apex court in India.

• The legislature of the Union, which is called Parliament, consists of the President and two Houses, known as Council of States (Rajya Sabha) and House of the People (Lok Sabha).

• The Lok Sabha (House of the People) is the lower house of the Parliament of India.

• Members of the Lok Sabha are elected by direct election under the universal adult franchise.

• Qualifications for a member of Lok sabha:

• A person must be a citizen of India.

YourMockTest.com — Free Study Material

• Not less than 25 years of age.

• The normal term of Lok Sabha is 5 years.

• The 'Council of States' is also known as Rajya Sabha.

• The constitution lays down 250 as the maximum strength of the Rajya Sabha, out of which 12 are nominated by the President from among persons who have achieved distinction in literature, art, science, and social services.

• Qualifications for a member of Rajya sabha:

• A person must be not less than 30 years of age.

Additional Information

• On 29 October 1954, Dr. Rajendra Prasad the first President of India laid the foundation stone of the Supreme Court building.

• The first woman judge of the Supreme Court of India was Fathima Beevi, who was appointed in 1989.

• While not the first in Asia, she holds the distinction of being the first woman Muslim judge to be appointed to any of the higher judiciaries in India.

Q7. Answer: (d) 0.65

Concept:

Third Proportional: If three numbers a, b, and c are in proportion, then $c = b^2/a$

Calculation:

Given, the three numbers in proportion are 2.6, 1.3, X

=> $X = (1.3)^2/2.6$

=> $X = 0.65$

Q8. Answer: (d) 1960

The correct answer is 1960.

Important Points

• On September 19, 1960, the Indus Waters Treaty (IWT) was signed between India and Pakistan to share water from the Indus river system (IRS).

• The treaty fixed and delimited the rights and obligations of both countries concerning the use of the waters of the Indus River system.

• The IWT allocates waters from three western flowing rivers – Indus, Jhelum, and Chenab to Pakistan barring some limited uses for India in Jammu & Kashmir.

• Under the IWT, India is allowed 3.60 Million Acre Feet (MAF) of storage (0.40 MAF on Indus, 1.50 MAF on the Jhelum, and 1.70 MAF on the Chenab).

• This was signed by former Prime Minister Jawaharlal Nehru and the President of Pakistan, Ayub Khan.

• It was brokered by the World Bank.

Q9. Answer: (b) 371/3

Given:

Girish can paint a picture in 4 days when he works for 8 hours per day

He could work for only 6 hours per day and required to finish painting 7 such pictures

Calculation:

Total Hours needed to paint 1 picture = 4 × 8

=> 32 hours

According to the question,

He could work for only 6 hours per day

=> Number of days required to paint 1 picture = 32/6 days

Therefore Number of days required to paint 7 such pictures = (32/6) × 7

=> 371/3 days

Q10. Answer: (b) Only II follows

From statement 1 → Using of Electronic book reading has increased during recent times because every one has smart phones and they can easily access all the books and they can store and read when ever they want in an easy manner.

From statement 2 → Books which are printed has become costly.

Conclusions:

I. Nobody reads books nowadays → False (From the both statements there is no information about Nobody reads books nowadays).

II. Electronic book reading is gaining popularity → True (From the statement 1 electronic book reading has increased in recent times, So the statement 1 satisfies this conclusion).

Thus, Only conclusion II follows.

Q11. Answer: (a) 95

The logic follows here is:-

2 + 3 × 1 = 5,

5 + 3 × 2 = 11,

11 + 3 × 4 = 23,

23 + 3 × 8 = 47,

Similarly,

47 + 3 × 16 = 95

Thus, the correct answer is "95".

Q12. Answer: (e) T-49 Tunnel

The correct answer is Pir Panjal Tunnel.

• India's longest railway tunnel through the Pir Panjal mountain range.

• An 11-km-long tunnel across the treacherous Pir Panjal mountain range on the Banihal-Qazigund railway line in Jammu and Kashmir.

• It is the longest such transportation passage in India and the second-longest in Asia.

Important Points

TUNNEL	LOCATION
Natuwadi Tunnel (4,389 meters)	Maharashtra
Carbide Tunnel (6,506 meters)	Maharashtra
Berdewadi Tunnel (4,000 meters)	Maharashtra

Additional Information

• Trivandrum Port Tunnel (9,020 meters) located in Kerala.

• It is under construction, will open in 2022.

• Sangaldan Tunnel is completed 2nd longest tunnel (8,000 meters) located in Jammu & Kashmir.

• Bhanwar Tonk Tunnel (1,024 meters) is the shortest tunnel in India located in Chhattisgarh.

Key Points

• The Atal Tunnel, at 9.02 km is the longest highway tunnel in the world, connects Manali to Lahaul-Spiti Valley, India.

• Gotthard base tunnel is the longest and deepest rail tunnel that has officially opened in Switzerland.

• The 57km (35-mile) tunnel will provide a high-speed rail link under the Swiss Alps between northern and southern Europe.

Q13. Answer: (d) Geetha

Hence, the logic follows here is :-

Rama is taller than Geetha → (Rama > Geetha).

Vimala is taller than Rama but shorter than Meenu → (Vimala > Rama) and (Vimala < Meenu).

Bindu is taller than Geetha but shorter than Rama → (Bindu > Geetha) and (Bindu < Rama).

From the given question the order follows is :-

Meenu > Vimala > Rama > Bindu > Geetha.

Thus, the shortest person in given people is "Geetha".

Q14. Answer: (d) Document detailing rare and endangered species of animals, plants etc

The correct answer is Document detailing rare and endangered species of animals, plants, etc.

Important Points

• The Red Data Book is the state document established for documenting rare and endangered species of animals, plants.

• It also deals with fungi as well as some local subspecies that exist within the territory of the state or country.

• This book provides central information for studies and monitoring programs on rare and endangered species and their habits.

• The International Union for Conservation of Nature (IUCN) Red List was founded in 1948.

Key Points

YourMockTest.com — Free Study Material

• The Green databook is a small pocket-sized book subjected to environmental data of more than 200 economies.
• It is based on world development indicators like agriculture, forestry, biodiversity, pollution, and sanitation.
• The Blue databook is related to species that are stabilized from endangered species to somewhat better.
• Carbon Black World Data Book is an essential resource for anyone involved in the carbon black industry.
• The Yellow data book extension of the Red book, that provides the CD contains data.

Q15. Answer: (d) 8.0

Given:

Principal, P = 10000

Number of years, N = 3

Amount, A = 11664

Formula used:

A = P[1 + (R/100)]^N

Calculation:

$11664 = 10000 \times [1 + (R/100)]^2$

$\Rightarrow [1 + (R/100)]^2 = 11664/10000$

$\Rightarrow [1 + (R/100)] = 108/100$

$\Rightarrow (R/100) = (108/100) - 1$

$\Rightarrow (R/100) = 8/100$

$\Rightarrow R = 8\%$

Therefore Rate of interest = 8%

Important Points

In the question, the time of investment is given as 3 years. But later in the question, it is given that the amount given is the amount obtained at the end of two years.

Without proper understanding, if you take time = 3 years, the solution will be wrong.

Q16. Answer: (d) 1

Explanation:

Smallest number of five digits = 10000

Greatest number of four digits = 9999

Now,

The required difference = 10000 - 9999 = 1

Q17. Answer: (b) Hyderabad

The correct answer is Hyderabad.

• National Geophysical Research Institute (NGRI), a constituent research laboratory of the Council of Scientific and Industrial Research (CSIR) was established in 1961.

• The research areas of this institute are ground water-management, artificial recharge, pollutants, natural hazards-earthquakes, tsunami.

Additional Information

RESEARCH INSTITUTE	LOCATION
Centre for Cellular and Molecular Biology	Hyderabad
Indian Institute of Chemical Technology	Hyderabad
National Institute of Animal Biotechnology	Gachibowli, Telangana
Indian Agricultural Research Institute (IARI)	New Delhi
Indian Institute of Horticultural Research	Bangalore, Karnataka
National Dairy Research Institute	Karnal, Haryana
Central Institute for Research on Cotton Technology (CIRCOT)	Mumbai, Maharashtra
National Metallurgical Laboratory	Jamshedpur, Jharkhand

YourMockTest.com — Free Study Material

Q18. Answer: (c) Yorkshire

The correct answer is Yorkshire.

• In 1992, Sachin Tendulkar became the first overseas-born player to represent Yorkshire, at the age of 19.

Important Points

• Sachin Tendulkar is known as the god of cricket.

• Sachin Tendulkar inherited the title Little Master from cricketer Sunil Gavaskar.

Key Points

• Sachin Tendulkar Played International Cricket For Pakistan Before Making His India Debut.

• Brabourne Stadium hosted a match between the Cricket Club of India (CCI) and Pakistanis on January 20, 1987.

• Sachin Tendulkar to receive Bharat Ratna. At the age of 40, Tendulkar is the youngest to be chosen for Bharat Ratna.

Additional Information

• Sachin Tendulkar and Javed Miandad are the two players, who have represented their respective countries in most (6) World Cup matches.

• Players who represented two countries at the World Cup:

• Kepler Wessels (Australia & South Africa).

• Anderson Cummins (West Indies & Canada).

• Eoin Morgan (Ireland & England).

• Ed Joyce (England & Ireland).

Q19. Answer: (d) Honey

The correct answer is Honey.

• A thick, golden liquid produced by industrious bees, honey is made using the nectar of flowering plants.

• It is saved inside the beehive for eating during times of scarcity.

• Nectar - a sugary liquid - is extracted from flowers using a bee's long, tube-shaped tongue and stored in its extra stomach, or "crop".

Important Points

• Beekeeping is called apiculture.

• A location where bees are kept is called an apiary or "bee yard".

Jute, Rubber, Teak all are plant products.

Jute	**• The fibres of jute are primarily composed of lignin or cellulose plant materials. - The two main types of jute, white jute (Corchorus Capsularies) and dark jute or Tossa (Corchorus olitorius).**
Rubber	• Rubber is made from the latex that comes from a tree species called Hevea brasiliensis, widely known as the rubber tree.
Teak	• It is a large deciduous tree of the family Verbenaceae, or its wood, one of the most valuable timbers. - Natural teak is incredibly durable and naturally water-resistant. - Teak is well grown in all parts of India. It is also found in the Gir National Park, Satpura National Park, Pench Tiger Reserve in India.

Q20. Answer: (c) Silicon

The correct answer is Silicon.

• Oxygen is the most abundant element in the earth's crust while silicon is second.

• The compound of silicon and oxygen, which is silica, makes up about 60% of this crust.

Important Points

The abundance of elements in Earth's (continental) crust:

ELEMENT	PERCENTAGE	ATOMIC NUMBER (Z)
Oxygen	46.1%	8
Silicon	28.2%	14
Aluminium	8.23%	13

Iron	5.63%	26
Calcium	4.15%	20
Hydrogen	0.140%	1
Carbon	0.0200%	6

Q21. Answer: (d) 1008 minutes

Given:

Four bells ring at 16, 24, 36, 42 minute intervals

They ring together at 6.00 a.m

Concept:

Next time when the bells ring together will be the LCM

Calculation:

To find LCM (16, 24, 36, 42) use prime factorization method:

16 = 2^4

24 = $2^3 \times 3$

36 = $2^2 \times 3^2$

42 = $2 \times 3 \times 7$

LCM = $2^4 \times 3^2 \times 7 = 1008$

Therefore After 1008 minutes the four bells would next ring together

Q22. Answer: (b) 6

Concept:

Fourth proportional: If 4 numbers a, b, c, and d are in proportion, then d = (b × c)/a

Calculation:

Here, Let the numbers in proportion be 4, 22, c, and 33

=> (22 × c)/4 = 33

=> c = (4 × 33)/22

=> c = 6

Therefore The third term is 6

Q23. Answer: (b) 76

The correct answer is 76.

Important Points

• Halley was last seen in Earth's skies in 1986 and was met in space by an international fleet of spacecraft. It will return in 2061 on its regular 76-year journey around the Sun.

• The radius of Halley's Comet is 5.5 km.

• Halley's comet was discovered in 1758.

• Comet Halley moves backwards (opposite to Earth's motion) around the Sun in a plane tilted 18 degrees to that of the Earth's orbit.

Additional Information

• Comet McNaught was seen over the Pacific Ocean in 2007.

• It was the biggest Comet Measured.

Q24. Answer: (c) Nico Rosberg

The correct answer is Nico Rosberg.

• Mercedes driver Nico Rosberg was the race winner of the 2016 Formula-1 Rolex Australian Grand Prix.

• Lewis Hamilton started in pole position and finished second in the race.

• Sebastian Vettel finished third for Ferrari.

• Felipe Massa holds the sixth position with Williams-Mercedes.

Important Points

DRIVER	CONSTRUCTOR	FACTS

YourMockTest.com — Free Study Material

Lewis Hamilton	Mercedes-AMG	• A British racing formula one driver. - His First win: 2007 Canadian Grand Prix. - He is the winner of the 2020 Emilia Romagna Grand Prix.
Sebastian Vettel	Scuderia Ferrari	• A German racing driver who races in Formula One. - He is a four-time Formula One World Champion, having won consecutive titles from 2010 to 2013 with Red Bull Racing. - He won the 2019 Singapore Grand Prix.
Felipe Massa	Williams-Mercedes	• A Brazilian formula one racing driver. - His first winning track is the 2006 Turkish Grand Prix. - He also won the 2008 Brazilian Grand Prix.

Q25. Answer: (a) Five

The correct answer is Five.

Important Points

• Five Jantar Mantar is located in New Delhi, Jaipur, Ujjain, Mathura, and Varanasi, all were completed between 1724 and 1735.

• Jantar Mantar is a phenomenal piece of architecture in the form of a sundial.

• It is one of the world's most accurate pre-modern observatories and attests to eighteenth-century efforts to improve understanding of planetary and other cosmic movements.

Additional Information

• Sawai Jai Singh II, the remarkable Monarch of Jaipur and Amber, was a mathematician, an astronomer, and a town planner par excellence.

Q26. Answer: (d) Carpenter

The logic follows here is:-

Books are written by Author.

Similarly,

Furniture is done by Carpenter.

Thus, the correct answer is "Carpenter".

Q27. Answer: (d) M

The logic follows here is :-

Memory Tip :

Numbers	Roman Numbers	Numbers	Roman Numbers	Numbers	Roman Numbers
1	I	11	XI	50	L
2	II	12	XII	100	C
3	III	13	XIII	500	D
4	IV	14	XIV	1000	M
5	V	15	XV		
6	VI	16	XVI		
7	VII	17	XVII		
8	VIII	18	XVIII		
9	IX	19	XIX		
10	X	20	XX		

From above table the logic is :

Numbers	Roman numbers
1	I

YourMockTest.com — Free Study Material

5	V
10	X
50	L
100	C
500	D
1000	M

Thus, the correct answer is 'M'.

Q28. Answer: (b) Data insufficient

Explanation:

Statement I:

Sasha is girl studying in standard 9

Here is no details that can be used to find the distance

Hence, Statement I is insufficient to answer the question

Statement II:

Sasa's mother drop her first at school and reaches her office which is 10Km away.

Here, only distance is given but not mentioned between which places

Hence, Statement II is insufficient to answer the question

Statement III:

Sasa takes 15 Minutes travelling by bus and 30 minutes by cycle

Here, only time is given. There is no information about the speed by which she travels hence distance can't be found

Hence, Statement III is insufficient to answer the question

Therefore, the answer is data insufficient.

Q29. Answer: (c) 465

Given:

A dozen apples weigh 1.8 kg

3 boxes weighing 23.250 kg each

Formula used:

Number of apples = Total weight of 3 boxes/ Weight of 1 apple

Calculation:

12 apples → 1.8 kg

1 apple → 0.15 kg

3 boxes weighing 23.250 kg each

=> Total weight of 3 boxes = 3 × 23.250 = 69.75 kg

Therefore Number of apples in 3 boxes = 69.75/0.15 = 465

Q30. Answer: (d) 7

The logic follows here is:-

&	$	#	%
•	•	÷	×

8 % 2 & 11 $ 24 & 24 # 6

Insert the given Arithmetic operators from given information.

8 × 2 + 11 - 24 + 24 ÷ 6

Using BODMAS Rule:

=> 8 × 2 + 11 - 24 + 24 ÷ 6

=> 8 × 2 + 11 - 24 + 4

=> 16 + 11 - 24 + 4

=> 31 - 24 => 7

Thus, the correct answer is '7'.

Q31. Answer: (b) 10,589

Given:

10% of a product's cost price is Rs. 1245.80

Loss = 15%

Concept:

If 10% of a product's cost price is x, then cost price of the whole product will be 10x

Formula used:

Loss% = (Loss/C.P) × 100

S.P = C.P - Loss

Calculation:

10% of a product's cost price is Rs. 1245.80

=> Cost price of the whole product = 1245.80 × 10 = 12458

Now,

Let the Loss be represented by L

=> (L/12458) × 100 = 15

=> L = (12458 × 15)/100

=> L = 1868.7

Therefore S.P = 12458 - 1868.7 = 10589.3

Selling price (rounded off to the nearest rupee) = 10,589

Q32. Answer: (d) Shehnai Player

The correct answer is Shehnai Player.

• The renowned Shehnai exponent Ustad Ali Ahmad Hussain Khan (77) passed away on 16 March 2016, in Kolkata, West Bengal.

• He was known for his innovative style and mastery over the classical, semi-classical, and folk music repertoire.

Important Points

Pandit Shivkumar Sharma, Rahul Sharma, Tarun Bhattacharya, Abhay Sopori.	**Santoor Player**
Ustad Zakir Hussain, Alla Rakha, Ustad Tafu Khan.	Tabla Player
Amjad Ali Khan Bangash, Ali Akbar Khan, Allauddin Khan.	Sarod Player
Hariprasad Chaurasia, Paras Nath.	Flute Player
Asad Ali Khan, Zia Mohiuddin Dagar, Ayyagari Syamasundaram	Veena Player
Pt Ravi Shankar, Shahid Parvez Khan, Budhaditya Mukherjee, Anushka Shankar.	Sitar Player

Q33. Answer: (a) Feather

The logic follows here is:-

Stone is Hard.

Similarly,

Feather is Soft.

Thus, the correct answer is 'Feather'.

Q34. Answer: (b) 1951-52

The correct answer is 1951-52.

Important Points

• The first general election was held in 1951-52 for over four months.

• It is from 25 October 1951 to 21 February 1952.

• The elections were based on universal adult franchise i.e twenty-one years of age or older having the right to vote.

• There were over 173 million voters, most of them poor, illiterate, and rural, and have had no experience of elections.

• The first general elections were marked by an active election campaign by Jawaharlal Nehru.

YourMockTest.com — Free Study Material

• The parties contested 489 seats.

• INC won the elections with 364 seats, as the people voted for the party which was led by Jawaharlal Nehru.

Q35. Answer: (d) Bipin Rawat

The correct answer is Bipin Rawat.

• General Bipin Rawat was the chief of the Indian Army from 31st December 2016 to 31st December 2019.

Key Points

• The Chief of the Army Staff (COAS) is the operational head and highest-ranking officer of the Indian Army.

Additional Information

• General Manoj Mukund Naravane is a Four-Star General of the Indian Army and the 28th Chief of the Army Staff (31st December 2019 - Present).

• General Sir Robert Mcgregor Macdonald Lockhart was the first Commander-in-Chief, Indian Army (15 August 1947 - 31 December 1947).

• India's first female jawan in the Indian army was Shanti Tigga.

• The Chief of Naval Staff is the highest rank in the Indian navy.

• Admiral Karambir Singh is the current chief of naval staff (24th).

• The highest rank attainable in the Indian Air Force is Marshal of the Indian Air Force.

• Rakesh Kumar Singh Bhadauria is the present Air Chief Marshal and took over the office on September 30, 2019.

Q36. Answer: (b) 3639

Given:

160 cycles were sold for Rs. 524,000

Loss = 10%

Formula used:

Loss % = (Loss/C.P) × 100

S.P = C.P - Loss

Calculation:

160 cycles → 524000

1 cycle → 524000/160

Now,

(Loss/C.P) × 100 = 10

=> (Loss/C.P) = 10/100

Take Loss = 10 and C.P = 100

=> S.P = 100 - 10 = 90

S.P for 1 cycle = 524000/160

=> 90 → 524000/160

=> 100 → (524000/160) × (100/90)

Therefore C.P of a cycle = 3638.88 = 3639 (rounded off to the nearest rupee)

Q37. Answer: (d) Article 100

The correct answer is Article 100.

• Article 100 in The Constitution Of India 1949:

• The Chairman or Speaker shall not allow voting in the first instance but right to have and exercise a casting vote in the case of an equality of votes.

• The House of Parliament consists of the power to act notwithstanding any vacancy in the membership.

• The quorum to constitute a meeting of either House of Parliament shall be one-tenth of the total number of members of the House.

• If there is no quorum during a meeting of a House, then the duty of the Chairman or Speaker is to adjourn the House or to suspend the meeting until appearing a quorum.

Important Points

• Article 101:

• No person will be a member of both Houses of Parliament. This provision is made by Parliament by law for the vacation by a person who is chosen as a member of both Houses of his seat in one House.

• No person will be a member both of Parliament and of a House of the Legislature of a State and if a person is chosen a member

both of Parliament and of a House of the Legislature of a State. then, that such period as may be specified in rules made by the President.

• If a member of either House of Parliament —

• They are subject to any of the disqualification by clause (1) or clause (2) of Article 102, or 5.

• His resignation seat by writing under his hand addressed to the Chairman or the Speaker.

• The House may declare his seat vacant If for sixty days a member of either House of Parliament is without permission of the House absent from all meetings:

• Period of sixty days no account will be taken of any period during which the House is prorogued or is adjourned for more than four consecutive days.

• Article 99:

• Oath or affirmation by members either House of Parliament by the rule of the Third Schedule.

• Article 97:

• Salaries and allowances of the Chairman and Deputy Chairman and the Speaker and Deputy Speaker fixed by Parliament by law. Such salaries and allowances are specified in the Second Schedule.

Q38. Answer: (a) II and III are sufficient.

Statement 1-: Surya and his sister are the only children in Ramesh's home.

It means there are only two children in Ramesh's home. Nothing mentioned about their ages.

Statement 2-: Surya's sister is elder to him by 5 years.

It means if we have Surya's age then we can find his sister's age or if we have sister's age then we can find Surya's age.

Statement 3-: Surya's sister just turned 15 this year.

Here Surya's sister age is given.

By combining Statement 2, 3 we can say that Surya's age is 5 years less than his sister, and sister's age given is 15. So Surya's age is 10.

Hence, Statement 2,3 are sufficient.

Q39. Answer: (c) 12^(th)March 1930

The correct answer is 12^(th) March 1930.

• On March 12, 1930, Indian independence leader Mohandas Gandhi begins a defiant march to the sea in protest of the British salt monopoly.

• Britain’s Salt Acts prohibited Indians from collecting or selling salt, a staple in the Indian diet. Citizens were forced to buy the vital mineral from the British.

• Gandhi set out from Sabarmati Ashram, Ahmadabad with 78 followers on a 241-mile march to the coastal town of Dandi on the Arabian Sea.

• They reached Dandi on April 5, Gandhi was at the head of a crowd of tens of thousands. Gandhi spoke and led prayers and early the next morning walked down to the sea to make salt.

Additional Information

• On May 21, the poet Sarojini Naidu led 2,500 marchers on the Dharasana Salt Works, some 150 miles north of Bombay.

Q40. Answer: (a) 4290

Code is given as per the table-:

Number	2	4	9	0
Code	[	=	•	•

So, '= [- +' can be written as '4290'.

Hence, correct answer is option 1.

Q41. Answer: (b) Gandak

The correct answer is Gandak.

Important Points

• The River Ganges Tributaries:

• Left: Gomti, Ghaghara, Gandak, Burhi Gandak, Koshi, Mahananda, Ramganga, Garra.

• Right: Yamuna, Sone, Punpun, Damodar.

• The Beas River (470 km) is a river in north India.

• Source: Rohtang La; Mouth: Sutlej River.

• The Tungabhadra river starts and flows through the state of Karnataka.

• Sources: Tunga, Bhadra; Mouth: Krishna River.

• The Manas (400 km) is the Himalayan foothills river between southern Bhutan and India.

• Source: Himalayas; Mouth: Brahmaputra.

Additional Information

• The Yamuna is the main and the longest (1,376 kilometres) right bank tributary of the river Ganga.

• Rises from Yamunotri glacier near the Banderpoonch peak of the higher Himalayas.

• Ghaghara River is the second-longest tributary of Ganga by length.

Q42. Answer: (a) Terminate J from his job.

As per the conditions given in question-:

1)Terminate J from his job.

This is most suitable option as per the given condition. Since it was first offence of employee so the manager can either dismiss the employee, impose a large fine or give a written warning. So as per his offence this action can be taken by manager.

2)Impose a fine of Rs. 5 on J.

This is not suitable option. Imposing Rs. 5 fine is not a large fine, so manager can't take such action.

3)Call for a meeting and congratulate his behaviour.

This is not suitable option. Since it was first offence of employee so the manager can either dismiss the employee, impose a large fine or give a written warning. Congratulating him means manager is favoring him on his mistakes, which is unacceptable.

4)Call J over the phone and warn him.

This is not suitable option. Since it was first offence of employee so the manager can either dismiss the employee, impose a large fine or give a written warning. Calling J over phone means not taking action as per rules.

Hence, we can say that most suitable option is 1.

Q43. Answer: (c) Varanasi

The correct answer is Varanasi.

• The Diesel Locomotive Works (DLW) in Varanasi, India, is a production unit owned by Indian Railways, that manufactures diesel-electric locomotives and its spare parts.

• It has made history by converting the diesel loco into electric loco with indigenous technology under the ‘Make In India’ initiative.

Important Points

• Irugur is a panchayat town located in the Coimbatore district of Tamil Nadu, which is famous for its yarn manufacturing and different processing units.

• Secunderabad, also known as the "twin city of Hyderabad".

• Secunderabad is an important commercial centre of Andhra Pradesh.

• Famous places in Secunderabad are Golconda Fort, Hussain Sagar Lake, Birla mandir, Trimulgherry Fort, Saidanimba Tomb, etc.

Key Points

• Dalhousie was the "Father of Indian Railways".

• Chittaranjan, West Bengal is popularly known for the Chittaranjan Locomotive Works.

Q44. Answer: (b) Chandrabhanga beach, Odhisha

The correct answer is Chandrabhanga beach, Odisha.

• The International Sand Art Festival was started in 2015 on the Chandrabhaga beach, a short distance from Konark, Odisha.

• It was a part of the Konark Dance Festival that is organized at the same time.

Additional Information

• The Sun temple is very famous in Konark, Odisha.

• Governor of Odisha, Professor Ganeshi Lal, inaugurated the 30th edition of the Konark festival of classical dance.

• The annual 5-day dance festival started on 1st December is being organized in the backdrop of the Sun Temple in Konark, Puri district of Odisha.

• Karwar is named as "Kashmir of Karnataka" by Rabindranath Tagore on his visit to Karwar, Karnataka.

Q45. Answer: (d) 3.50

Concept:

On multiplying both numerator and denominator by 1000, the fractions can be avoided

Calculation:

(1.13 + 5.884)/(2.004)

Multiply Numerator and Denominator by 1000

=> (1130 + 5884)/2004

=> 7014/2004

=> 3.50

Q46. Answer: (d) Phytoplankton

The correct answer is Phytoplankton.

• Phytoplankton is microscopic marine algae, the base of several aquatic food webs.

• In a balanced ecosystem, they provide food for a wide range of sea creatures like shrimp, snails, and jellyfish.

• The two main classes of phytoplankton are dinoflagellates and diatoms.

• Scientists estimate that 50-80% of the oxygen production on Earth comes from the ocean. The majority of this production is from oceanic plankton — drifting plants, algae, and some bacteria that can photosynthesize.

Important Points

E.coli	**• E. coli (Escherichia coli), is a type of bacteria that normally lives in the lower intestines. It's also found in the gut of some animals. - Some strains can cause diarrhoea, dehydration.**
Amoeba	• Amoebae are eukaryotes protozoans of the rhizopodan order Amoebida. - It is found on decaying bottom vegetation of freshwater streams and ponds.
Salmonella enterica	• Salmonella enterica is a rod-shaped, Gram-negative facultative intracellular pathogen. - The genus Salmonella was named after Daniel Salmon - Salmonella enterica is a zoonotic pathogen of substantial concern to global human and animal health. - It is a leading cause of morbidity and mortality in people.

Q47. Answer: (b) China

The correct answer is China.

• The production of silk originates in China in the Neolithic (Yangshao culture, 4th millennium BC).

• Silk remained confined to China until the Silk Road opened at some point during the latter half of the first millennium BC.

• According to Chinese myth, sericulture and the weaving of silk cloth was invented by Lady Hsi-Ling-Shih, the wife of the mythical Yellow Emperor who is said to have ruled China in about 3,000 BC.

Additional Information

• The Silk Route was a historic trade route that dated from the second century B.C. until the 14th century A.D.

• It stretched from Asia to the Mediterranean, traversing China, India, Persia, Arabia, Greece, and Italy.

• It was dubbed the Silk Route because of the heavy silk trading that took place during that period.

Q48. Answer: (c) 18

Given:

In a class of 60 students, 60% are boys

25% of the girls come to school by bicycle

Calculation:

Number of boys = 60% of 60 = 36

=> Number of girls = 60 - 36 = 24

Number of girls come to school by bicycle = 25% of 24 = 6

Therefore The number of girls who don't come to school by bicycle = 24 - 6 = 18

Q49. Answer: (a) 500

Given:

Jeeva purchased an article for Rs. 2500

Sold it at 25% above cost

Paid a tax of Rs. 125

Calculation:

YourMockTest.com — Free Study Material

Jeeva purchased an article for Rs. 2500

=>Cost Price for the article, C.P = 2500

Sold it at 25% above cost

=> Selling Price for the article, S.P = 2500 + [(2500 × 25)/100]

=> S.P = 3125

Paid a tax of Rs. 125

=> Post tax amount i hand of Jeeva = 3125 - 125 = 3000

Therefore Post-tax Profit = 3000 - 2500 = 500

Q50. Answer: (a) School

Principal, Teacher and Student are member of school. They all are living things.

Whereas,

School is an institution, which is non living thing.

So, "School" is the odd one.

Q51. Answer: (d) 15

Shortcut Trick

An odd composite number must not be divisible by 2 and must have more than two factors.

Check the options: 13 and 17 are prime numbers.

12 is an even number.

15 is odd and has factors 1, 3, 5, and 15 (composite).

Therefore The correct answer is 15.

Alternate Method

Given: Numbers 13, 17, 12, and 15.

Step 1: Identify Odd Numbers (Numbers not divisible by 2).

=> Odd numbers in the list: 13, 17, 15.

Step 2: Identify Composite Numbers (Numbers having more than 2 factors).

=> Factors of 13: 1, 13 (Prime)

=> Factors of 17: 1, 17 (Prime)

=> Factors of 15: 1, 3, 5, 15 (Composite)

Step 3: Combining both conditions.

=> Number which is both Odd and Composite = 15.

Therefore The correct answer is 15.

Additional Information

Prime Numbers

Numbers that have only two factors: 1 and the number itself. Example: 2, 3, 5, 7, 11, 13, 17.

Composite Numbers

Numbers that have more than two factors. The smallest composite number is 4.

Odd Composite Numbers

The smallest odd composite number is 9 (factors: 1, 3, 9). Other examples include 15, 21, 25, 27.

Special Cases

The number 1 is neither prime nor composite. 2 is the only even prime number.

Q52. Answer: (c) make playing outdoors compulsory.

Statement-: It's saying that research shows that playing outdoors improves the overall health of kids. Nowadays kids do not find time to play outdoors. Which means that we should encourage our kids for playing outdoor, which will improves overall health of kids.

Conclusion 1-: This does not follows. It's given in statement that playing outdoors improves the overall health of kids. So encouraging indoor games is opposite to statement.

Conclusion 2-: This does not follows. In given statement there is nothing mentioned about not sending kids to school. It is not favoring the statement which is saying to improve improve overall health by playing outdoors.

Conclusion 3-: This conclusion follows. Make playing outside compulsory means to encourage outdoor games, which will improve overall health of kid.

Conclusion 4-: This does not follows. In given statement, there is nothing mentioned about parents office hours rescheduling.

YourMockTest.com — Free Study Material

Without changing office hour they can also do that, so it's not favorable to do that.

Hence, most suitable conclusion is 3.

Q53. Answer: (b) Research and Analysis Wing

The correct answer is Research and Analysis Wing.

Key Points

• RAW (Research and Analysis wing) is India's External Intelligence agency.

• It is Headquartered in New Delhi.

• RAW came into being on September 21st, 1968, after the Sino-Indian war of 1962 and the India-Pakistan war of 1965, which exposed gaps in intelligence gathering undertaken by the Intelligence Bureau.

• RAW's first director was Rameshwar Nath Kao.

• The head of RAW is called the "Secretary" (research) in the cabinet secretariat.

• The current chief of RAW is Ravi Sinha.

• RAW used to hire people only from IB (Intelligence Bureau), Indian police services, and Indian military or revenue departments.

• In fact, RAW is only answerable to the Prime Minister of the country, and the Joint Intelligence Committee.

• In 1971, RAW played an important role in supporting Mukti Bahini a Bangladeshi guerrilla organization by providing them training, intelligence, and ammunition.

• In 1984 RAW involved in operation Meghdoot.

• RAW kept India's first nuclear test secret successfully i.e. Operation Smiling Buddha.

Q54. Answer: (a) Cookies

The correct answer is Cookies.

• A cookie is a small piece of text sent to the browser by a website user visit.

• It helps the website to remember information about user visits, like user preferred language and other settings.

• Cookies can make user's next visit easier and the site more useful to the user.

• Specific cookies known as HTTP cookies are used to identify specific users and improve your web browsing experience.

Username	**• The name people use to identify themselves when logging into a computer system or online service. - In most situations, both a username (user ID) and password are required. - In an Internet email address, the username is the left part before the @ sign.**
Cache	• A web cache is a hardware device or software application for temporarily storing frequently-accessed static content. - It stores Web documents, such as Web pages, images, and other types of Web multimedia, to reduce server lag.
Password	• It is a string of characters used to verify the identity of a user during the authentication process. - Passwords are typically used in conjuncture with a username. - They are designed to be known only to the user and allow that user to gain access to a device, application, or website.

Q55. Answer: (c) Battery

The correct answer is Battery.

• A battery is a device that stores chemical energy and converts it to electrical energy.

• The chemical reactions in a battery involve the flow of electrons from one material (electrode) to another, through an external circuit.

• Energy using an electrochemical oxidation-reduction (redox) reaction.

• The flow of electrons provides an electric current that can be used to do work.

Important Points

Motor	**• Convert Electrical energy into Mechanical energy. - It works on Fleming's left-hand rule.**
Dynamo	• Convert Mechanical energy into Electrical energy.
Generator	• Convert Mechanical energy into Electrical energy. - It works on Fleming's right-hand rule.

YourMockTest.com - Free Study Material

Key Points

The most familiar example of this type is the dry cell (known as Leclanche cell after its discoverer) which is used commonly in our transistors and clocks.

• The cell consists of a zinc container that also acts as an anode and the cathode is a carbon (graphite) rod surrounded by powdered manganese dioxide and carbon.

• The space between the electrodes is filled by a moist paste of ammonium chloride (NH_4Cl) and zinc chloride ($ZnCl_2$).

Q56. Answer: (b) Martina Hingis / Sania Mirza

The correct answer is Martina Hingis / Sania Mirza.

• Sania Mirza (India) and Martina Hingis (Switzerland) pair won the 2015 Women's Doubles title of China Open.

• In the final match, they defeated Chinese pair Hao-ching and Chan Yung-Jan.

• It was played on outdoor hard courts in Beijing.

Additional Information

• 2015 Men's Doubles title of China Open:

• Vasek Pospisil (Canada) and Jack Sock (US) pair won by defeated Daniel Nestor (Canada) and Édouard Roger-Vasselin (France).

• 2015 Men's Singles title of China Open:

• Novak Djokovic of Serbia won by defeated Rafael Nadal of Spain.

• 2015 Women's Singles title of China Open:

• Garbiñe Muguruza of Spain won by defeated Tímea Bacsinszky of Switzerland.

Q57. Answer: (b) Lord William Bentinck

The correct answer is Lord William Bentinck.

• On December 4, 1829, Governor-General of Bengal, Sir William Bentinck brought out the Sati Regulation Act.

Important Points

• Raja Ram Mohan Roy was the social reformer who worked hard for the abolition of this 'Sati Pratha' ritual.

• Ram Mohan Roy was given the title of 'Raja' by Akbar II, the Mughal emperor, who sent him to England to represent him.

• He started India's first English medium school in 1816 in Kolkata that later came to be known as the Anglo-Hindu school.

• Roy founded the Brahmo Samaj in 1828. This move is often credited with playing an important role in reforming and modernizing Indian society.

• He is often called the 'Father of Indian Renaissance'. Freedom fighter Gopal Krishna Gokhale called Roy the 'Father of Modern India'.

Key Points

• 'Sati pratha' was a Hindu ritual where the widow had to sit on her husband's funeral pyre and burn alive.

• The Portuguese banned the practice in Goa by 1515.

• In the 16th century, Humayun was the first to try a royal agreement against the practice. Akbar was next to issue official orders prohibiting Sati and since then it was done voluntarily by women.

Q58. Answer: (c) 28.7

Given:

The ratio between the length and breadth of a rectangular board is 7 : 5

The breadth is 20.5cm

Calculation:

Let the length and breadth be 7x and 5x respectively

$\Rightarrow 5x = 20.5$

$\Rightarrow x = 4.1$

Therefore The length = 7x

$\Rightarrow 7 \times 4.1 = 28.7$

Short Trick:

Ratio is 7 : 5

5 = 20.5

1 = (20.5/5)

7 = (20.5/5) × 7 = 28.7

Q59. Answer: (a) 3325

Given:

Purchased 132 dozens of mangoes at Rs. 475

Sold only 125 dozens at Rs. 530 per dozen

Calculation:

Purchased 132 dozens and Sold only 125 dozens

=> Stock of mangoes in hand = 132 - 125 = 7 dozens

=> Value per dozen = Rs. 475

Therefore Value of Sock of mangoes in hand = 7 × 475 = 3325

Q60. Answer: (b) -8

Equation given:- 10 + 3 - 6,

Interchange the sign:- '+' becomes '-' and '-' becomes '×'

After changing signs according to question we get following equation-:

10 - 3 × 6

= 10 - 18

= -8

Hence, correct answer is -8.

Q61. Answer: (a) 16/(10²)

Calculation:

(3.2 × 10^4) ÷ (2 × 10^5)

=> (32 × 10³)/(2 × 10^5)

=> (32 × 103) / (2 × 10^5)

=> 16/10²

Q62. Answer: (b) Compiler

The correct answer is Compiler.

• A compiler takes the program code (source code) and converts the source code to a machine language module (called an object file).

Important Points

Executor	**• An executor is a small but perfectly functional Java (1.5 or higher) JAR executable that is used to run programs in shared computer resources like a pool of computers that connect two users. - Executor uses a shared or synchronized file system.**
Translator	• A translator is a programming language processor that converts a computer program from one language to another. - It takes a program written in source code and converts it into machine code. It discovers and identifies the error during translation. - There are 3 different types of translators: - Compiler. - Interpreter. - Assembler.
Interpreter	• An Interpreter directly executes instructions written in a programming or scripting language without previously converting them to an object code or machine code. - Interpreted languages are Perl, Python, and Matlab.

Additional Information

• Another specialized program, called a linker, combines this object file with other previously compiled object files (in particular run-time modules) to create an executable file.

Q63. Answer: (a) Team-12 and Team-16

Matches are played between:-

1 Vs 2, 3 Vs 4, 5 Vs 6, 7 Vs 8, 9 Vs 10, 11 Vs 12, 13 Vs 14, 15 Vs 16

Lower ranked team always wins. For eg-: In Team-1 Vs team-2 match team-2 wins.

So,

1 <=> 2 - Team 2 wins

YourMockTest.com — Free Study Material

3 <=> 4 - Team 4 wins
5 <=> 6 - Team 6 wins
7 <=> 8 - Team 8 wins
9 <=> 10 - Team 10 wins
11 <=> 12 - Team 12 wins
13 <=> 14 - Team 14 wins
15 <=> 16 - Team 16 wins
Thus 2, 4, 6, 8, 10, 12, 14, 16 wins.
Again matches are played between:-
2 Vs 4, 6 Vs 8, 10 Vs 12, 14 Vs 16
2 <=> 4 - Team 4 wins
6 <=> 8 - Team 8 wins
10 <=> 12 - Team 12 wins
14 <=> 16 - Team 16 wins
Lower ranks wins that is - 4, 8, 12, 16 i.e. we have 4 teams which play semifinal.
So semis played between:- 4 and 8, 12 and 16.
4 <=> 8 - Team 8 wins
12 <=> 16 - Team 16 wins
Thus Team 12 and team-16 will play semifinal since team-4 and team-8 is not given in options.
Hence, Correct answer is option 1.
Confusion PointsAfter semifinal Team-8 and Team -6 will win.
So these teams will play final.

Q64. Answer: (b) 5

Given:
A trip from Mumbai to Pune takes 4 hours 30 minutes at a speed of 60 km/hr
Concept:
Distance will be the same. Only speed and time change.
Formula used:
Distance = Speed × Time
Calculation:
Time = 4 hours 30 minutes = 4.5 hours
Speed = 60 km/hr
Distance = 4.5 × 60 = 270 km
Now, if the speed is 15 m/sec:
15m/sec = 15 × (18/5) km/hr
=> 54 km/hr
Time to travel 270 km with speed 54 km/hr:
Time = 270/54 = 5 hours

Q65. Answer: (d) 48

The pattern followed here is-:
Hence, the correct answer is 48.

Q66. Answer: (c) Constellation

The correct answer is Constellation.
• Ursa Major constellation lies in the northern sky. Its name means “the great bear,” or “the larger bear” in Latin.
• Ursa Major is the largest northern constellation and third largest constellation in the sky.
• Its brightest stars form the Big Dipper asterism, one of the most recognizable shapes in the sky, also known as the Plough.
• Ursa Major contains seven Messier objects. It also contains 13 stars with confirmed planets.
Important Points
• The biggest known galaxy is IC 1101, which is 50 times the Milky Way's size and about 2,000 times more massive.
• It is about 5.5 million light-years across.

YourMockTest.com — Free Study Material

• Our Sun (a star) and all the planets around it are part of a galaxy known as the Milky Way Galaxy.

• A galaxy is a large group of stars, gas, and dust bound together by gravity. The Milky Way is made up of about 90% dark matter, the matter which cannot be seen, and about 10% “luminous matter”, or matter that we can see with our eyes.

• The solar system lies about 30,000 light-years from the galactic centre.

Additional Information

• Sirius, also known as the Dog Star or Sirius A, is the brightest star in Earth's night sky.

• The name means "glowing" in Greek.

Q67. Answer: (c) = × - +

We have to replace # signs according to option and get a balanced equation-:

1) - ÷ + =

24 # 8 # 4 # 10 # 2

24 - 8 ÷ 4 + 10 = 2

24 - 2 + 10 = 2

34 - 2 = 2

32 ≠ 2 (We are not getting balanced equation.)

2) + = + -

24 # 8 # 4 # 10 # 2

24 + 8 = 4 + 10 - 2

32 = 14 - 2

32 ≠ 12 (We are not getting balanced equation.)

3) = × - +

24 # 8 # 4 # 10 # 2

24 = 8 × 4 - 10 + 2

24 = 32 - 10 + 2

24 = 34 - 10

24 = 24 (Here we get balanced equation.)

4) + × = +

24 + 8 × 4 = 10 + 2

24 + 32 = 12

56 ≠ 12 (We are not getting balanced equation.)

Hence, the correct answer is option 3.

Q68. Answer: (c) SEBI (Securities and Exchange Board of India)

The correct answer is SEBI (Securities and Exchange Board of India).

Key Points

• The Securities and Exchange Board of India (SEBI), was initially constituted on April 12, 1988.

• SEBI is the regulatory body for dealing with all matters related to the development and regulation of the securities market in India.

• SEBI is situated in Mumbai with its regional offices at Kolkata, Delhi, and Chennai.

• SEBI is managed by six members:

• one chairman (nominated by Central Government), two members (officers of central ministries), one member (from RBI), and the remaining two members are nominated by Central Government.

• SEBI’s primary functions include protecting investor interests, promoting and regulating the Indian securities markets.

• All financial intermediaries permitted by their respective regulators to participate in the Indian securities markets are governed by SEBI regulations.

Important Points

YourMockTest.com — Free Study Material

RBI (Reserve Bank of India)	**• RBI was founded on 1 April 1935, in Kolkata. - HQ in Mumbai. - Governor is sanjay malhotra. - The RBI is responsible for implementing monetary and credit policies, issuing currency notes, being a banker to the government, a regulator of the banking system, manager of foreign exchange, and regulator of payment & settlement systems while continuously working towards the development of Indian financial markets. - RBI is not a Commercial Bank. - RBI was nationalized on 1st January 1949. - The First Governor of RBI was Sir Osborne Smith (1935 – 1937). - The First Indian Governor of RBI was CD Deshmukh (1943 – 1949). - The only Prime Minister who was the Governor of RBI was Manmohan Singh (1982 – 1985). - The First women deputy Governor of RBI was KJ Udeshi.**
Supreme Court	• Supreme Court came into existence on 26 January 1950 and is the apex court in India. - HQ in New Delhi. - On 29 October 1954, Dr Rajendra Prasad the first President of India laid the foundation stone of the Supreme Court building.
Finance Ministry	• It deals with taxation, financial legislation, financial institutions, capital markets, centre and state finances, and the Union Budget. - The current Finance Minister of India is Nirmala Sitharaman (first female full-time Finance Minister). - Liaquat Ali Khan was the first Finance Minister. - Independent India's first Union Budget was presented on 26th November 1947 by Sri. R K Shanmukham Chetty.

Q69. Answer: (d) Palk Strait

The correct answer is Palk Strait.

• Palk Strait is a strait between the Tamil Nadu state of India and the Mannar district of the Northern Province of Sri Lanka.

• It connects the Bay of Bengal in the northeast with the Palk Bay and then with the Gulf of Mannar in the southwest.

• The strait is named after Robert Palk.

Important Points

• A Strait is a narrow channel of the sea joining two larger bodies of water.

• It most commonly refers to a channel of water that lies between two landmasses.

STRAIT	JOIN	LOCATION
Nemuro	Kunashir and Hokkaido islands.	Russia
Bass	The Tasman Sea & South Sea.	Australia
Duncan Passage	Rutland Island to the north, and Little Andaman to the south.	Indian Ocean
Malacca	The Andaman Sea & South China Sea.	Indonesia –Malaysia
Gibraltar	The Mediterranean Sea & Atlantic Ocean.	Spain-Morocco
Bering	The Bering Sea & Chukchi Sea.	Alaska-Russia

Additional Information

• Adam's Bridge, also known as Rama's Bridge or Rama Setu, is a chain of limestone shoals, between Pamban Island (known as Rameswaram Island), and Sri Lanka.

• It is created across the sea connecting Pamban Island in Tamil Nadu to Mannar Island in Sri Lanka.

Q70. Answer: (a) Elias Howe

The correct answer is Elias Howe.

• Elias Howe patented the first-ever lockstitch sewing machine in the world in 1846.

• His invention helped the mass production of sewing machines and clothing.

Important Points

YourMockTest.com — Free Study Material

SCIENTIST	INVENTION
Alessandro Volta	Electric battery
Ernest Rutherford	Proton
John Napier	logarithms (mathematical device)

Additional Information

• List of some scientists and their invention:

SCIENTIST	INVENTION
Albert Einstein	Photoelectric effect. General and Special theory of relativity and the concept of mass-energy equivalence ($E = mc^2$)
James Chadwick	Neutron.
J.J Thomson	Electron.
Isaac Newton	Laws of motion. Gravitational force. Calculus.
John Dalton	Theory on atoms.
Thomas Edison	Fluorescent electric lamp. Carbon rheostat. Thermionic Emission.
Henri Becquerel	Radioactivity.
Michael Faraday	Electromagnetic Induction.
Max Planck	Quantum theory of energy.

Q71. Answer: (d) 10.08

Given:

A cyclist covers a distance of 14 km in 25 minutes

Concept:

Speed will be the same

Formula used:

Speed = Distance/Time

Calculation:

Distance = 14 km

Time = 25 minutes = 25/60 hours

Speed = 14/(25/60)

=> Speed = 33.6 km/hr

Now, Distance covers in 18 minutes (18/60 hours):

Distance = 33.6 × (18/60)

=> Distance = 10.08 km

Q72. Answer: (b) Red, Green, Blue

The correct answer is Red, Green, Blue.

• Red, green, and blue are the primary colours of light—they can be combined in different proportions to make all other colors.

• There are two colour models:

• Light Color Primaries (Red, Green, Blue).

• Pigment Color Primaries (Cyan, Magenta, Yellow).

Important Points

• Primary colours make all other colours:

• Red + Green = Yellow.

• Green + Blue = Cyan.

• Blue + Red = Magenta.

• There are three Secondary Colors (S'): Orange, Green, Violet.

• There are six Tertiary Colors (Ts): Red-Orange, Yellow-Orange, Yellow-Green, Blue-Green, Blue-Violet, Red-Violet.

YourMockTest.com — Free Study Material

• Tertiary is formed by mixing a primary with a secondary.

Additional Information

• In terms of wavelengths, visible light ranges from about 400 nm to 700 nm.

• light with a wavelength of about 400 nm is seen as violet, and light with a wavelength of about 700 nm is seen as red.

Key Points

• The inner surfaces of human eyes contain photoreceptors—specialized cells that are sensitive to light and relay messages to the brain.

• There are two types of photoreceptors: cones (which are sensitive to colour) and rods (which are more sensitive to intensity).

• Humans are able to see an object when light from the object and enters their eyes and strikes these photoreceptors.

Q73. Answer: (b) Methyl Mercury

The correct answer is Methyl Mercury.

• Minamata disease (Chisso-Minamata disease), is a neurological syndrome caused by severe mercury poisoning.

• Symptoms include ataxia, numbness in the hands and feet, general muscle weakness, narrowing of the field of vision, and damage to hearing and speech.

• Minamata disease was first discovered in Minamata city in Kumamoto prefecture, Japan in 1956.

• It was caused by the release of methylmercury in the industrial wastewater (point source pollution) from the Chisso Corporation's chemical factory, which continued from 1932 to 1968.

• This highly toxic chemical bioaccumulated in shellfish and fish in Minamata Bay and the Shiranui Sea, which when eaten by the local populace resulted in mercury poisoning.

• A second outbreak of Minamata disease occurred in Niigata Prefecture in 1965.

Important Points

Salmonella	**• It is a type of food poisoning by some bacteria. - Illness from these bacteria is officially called salmonellosis. It can cause an upset stomach, diarrhoea, fever, and pain and cramp in your belly.**
Lead	• Exposure to high levels of lead may cause anaemia, weakness, and kidney and brain damage. - Anaemia is a low level of healthy red blood cells (RBCs). RBCs carry oxygen from the lungs to the rest of the body. When red blood cells are low, the body does not get enough oxygen. - Lead poisoning is also called plumbism.
Perchlorate	• Perchlorate can disrupt the normal function of the thyroid gland in both children and adults. - The thyroid plays an important role in metabolism, making and storing hormones that help regulate the heart rate, blood pressure, body temperature, and the rate at which food is converted into energy.

Q74. Answer: (d) Composting

The correct answer is Composting.

• The definition of compost means to mix vegetables and other organic waste together and to let them decompose.

• Compost is a mixture of organic residues (manure, animal carcasses, straw, etc.) that have been piled, mixed, and moistened to undergo thermophilic (high heat 113 to 160 degrees Fahrenheit) decomposition.

• This publication pertains to composting animal manures.

• Compost, manure, and fertilizer are materials that enrich the soil with nitrogen, phosphorus and potassium, and other nutrients.

Important Points

Incineration	**• Incineration is a popular way to dispose of waste, the use of combustion also burns Refuse items that could have been recycled or composted. - Many of the waste items incinerated contain toxins such as mercury, dioxins, and furans, which produce carbon dioxide and nitrous oxide when burned. - This treatment is often used in the production of electricity as it reduces the mass of waste up to 96 per cent.**

YourMockTest.com — Free Study Material

Conservation	• Conservation is the care and protection of these resources so that they can persist for future generations. - Conservation seeks the sustainable use of nature by humans, for activities such as hunting, logging, or mining, while preservation means protecting nature from human use.
Metabolism	• Metabolism is the chemical reaction in the body's cells that change food into energy. - During this complex biochemical process, calories in food and beverages are combined with oxygen to release the energy your body needs to function.

Q75. Answer: (a) 20 months

Given:

Simple Interest (S.I) = 400

Principal, P = 4000

Rate of Interest, R = 6%

Formula used:

S.I = (P × R × T)/100

Calculation:

S.I = (P × R × T)/100

=> Period, T = (100 × S.I)/(P × R)

=> T = (100 × 400)/(4000 × 6)

=> 10/6 years

=> T = (10/6) × 12 months

Therefore Period = 20 months

Q76. Answer: (a) P(1.025)^4

Given:

Principal amount = P

Rate of interest, R = 5%

Time period, T = 2 years

Formula used:

When compounded half yearly,

Amount, A = P [1 + (R/200)]²^T

Calculation:

A = P[1 + (5/200)]^(2 × 2)

=> A = P(1 + 0.025)^4

=> A = P(1.025)^4

Therefore The amount received at the end of 2 years is P(1.025)^4.

Q77. Answer: (c) 300°

The angle between the hour hand and minute hand = (30H - 11M/2)

Here, H = hour M = Minute

At 2'O clock

H = 2 and M = 0

So, (30 × 2 - 11 × 0/2)

or (60 - 0)

or 60º

Now reflex angle is = 360º - 60º = 300º

Hence, correct answer is 300º.

Q78. Answer: (a) Kosala

The correct answer is Kosala.

• Kosala, the ancient kingdom of northern India, roughly corresponding to the historical region of Oudh, it is now south-central Uttar Pradesh state.

YourMockTest.com — Free Study Material

• Kosala extended across both banks of the Sarayu (modern Ghaghara) River and north into what is now Nepal.

Important Points

• Saadat Ali Khan was the first Nawab of Awadh.

• The Nawab of Awadh is a title that was given to the rulers of the Indian princely state of Awadh or Oudh, as it was referred to by the British.

Additional Information

• The famous ruler of the Kosala Kingdom was King Prasenajit during the 6th century BCE.

Q79. Answer: (c) 12, 15, 1, 14

The correct answer is 12, 15, 1, 14.

• There are 26 alphabets in the English language.

1.A, 2.B, 3.C, 4.D, ..., 24.X, 25.Y, 26.Z.

So, according to the above serial number,

• "L" belongs to 12,

• "O" belongs to 15,

• "A" belongs to 1,

• "N" belongs to 14.

Q80. Answer: (d) Two

The correct answer is Two.

• The heart of the fish has two chambers namely:

• Atrium

• Ventricle

• Valves between the chambers and contraction of all chambers except the bulbs maintain a unidirectional blood flow through the heart.

• The blood from the body, which is low in oxygen enters the atrium via the sinus venosus, which contains the pacemaker cells that initiate the contractions. The blood is pumped into the ventricle by the atrium, which is a thin-walled muscular chamber.

Important Points

• Amphibians and reptiles have three-chambered hearts.

• Birds have four-chambered hearts.

• Worms and their ilk have one chamber heart.

• Humans have 4 chambered heart.

• The flow of the blood is given as follows:

• Blood enters the right atrium and passes through the right ventricle.

• The right ventricle pumps the blood to the lungs where it becomes oxygenated.

• The oxygenated blood is brought back to the heart by the pulmonary veins which enter the left atrium.

• From the left atrium, blood flows into the left ventricle.

• The left ventricle pumps the blood to the aorta which will distribute the oxygenated blood to all parts of the body.

Q81. Answer: (a) 25

The correct answer is 25.

• The individual should be at least 25 years of age or more to become the Chief Minister of any state in India.

Important Points

• Chief Minister is the elected head of the state government.

• A person has to meet a certain set of qualifications to be eligible for the position of a Chief Minister:

• To be a citizen of India is the fundamental criterion.

• Should be at least 25 years of age or more.

• Should be a member of the state legislature.

Additional Information

• Article 154 of the Indian Constitution gives executive power of the State to the Governor.

• The Governor of a State is appointed by the President for a term of five years and holds office during his pleasure.

• Only Indian citizens above 35 years of age are eligible for appointment to this office.

YourMockTest.com — Free Study Material

Q82. Answer: (d) 3

Given:

Hira decides to pack 165 mangoes in boxes that can hold 18 each

Concept:

On dividing 165 by 18, the remainder will give the number of mangoes gave away.

Calculation:

On dividing 165 by 18, the remainder = 3

Therefore The number of mangoes gave away= 3

[OR]

18 × 9 = 162

=> 162 mangoes will be carried in 9 boxes

Therefore The number of mangoes gave away = 165 - 162 = 3

Q83. Answer: (a) Keshav Bansal

The correct answer is Keshav Bansal.

• In 2016, Keshav Bansal bought the IPL franchise of Gujarat Lions.

• He was the youngest (age of 24) owner of an IPL team.

• He has won many awards like 'Young Entrepreneur of the Year 2013' award by NCN Magazine, 'Amity Leadership Award for Business Excellence', 2016 and was also included in GQ India magazine as one of the 50 most influential young Indians.

Important Points

• Jay Mahata is a co-owner of the Indian Premier League team Kolkata Knight Riders Along with actor Shahrukh Khan.

• Subrata Roy is the owner of Pune Warriors India.

• List of IPL Team owners:

TEAM	OWNER
Kolkata Knight Riders	Red Chillies Entertainment and Mehta Group
Mumbai Indians	Reliance Industries
Royal Challengers Bangalore	United Spirits
Sunrisers Hyderabad	Sun TV Network
Kings XI Punjab	Mohit Burman, Ness Wadia, Preity Zinta, and Karan Paul

Additional Information

• Ambani owns the Mumbai Indians team in the Indian Premier League.

• He is the richest IPL owner.

Q84. Answer: (d) North

From the figure we can see that Shipra is facing south when she reached her grandmother's door entrance, so the door must be facing towards north.

Hence, "North" is the correct answer.

Q85. Answer: (a) OHOT

After rearrangement

OHOT → HOOT

ETRE → TREE

OTOR → ROOT

DESE → SEED

Except HOOT, other words are related to each other but HOOT means cry or musical sound.

Hence, OHOT is the correct answer.

Q86. Answer: (d) 4 4/9

Given:

'K' can do 3/4thof a work in 6 days

'J' can do 2/5thof the same work in 4 days

Formula used:

Number of days = Total work/1 day's work (Efficiency)

Calculation:

K can do the whole work alone in [(6 × 4)/3] days

=> K → 8 days

J can do the whole work alone in [(4 × 5)/2] days

=> J → 10 days

Total work = LCM (8, 10) = 40 unit

=> 1 day's work of K = 40/8 = 5 unit

=> 1 day's work of J = 40/10 = 4 unit

=> 1 day's work of (K + J) = 5 + 4 = 9 unit

Therefore Number of days = 40/9

=> 4 4/9 days

Q87. Answer: (a) 6

Given:

LCM = 40 times HCF

The product of the numbers is 1440

Formula used:

LCM × HCF = Product of numbers

Calculation:

Let HCF of the number be 'H'

=> LCM = 40H

Now,

LCM × HCF = Product of numbers

=> 40H × H = 1440

=> $H^2 = 1440/40 = 36$

=> H = 6

Therefore HCF = 6

Q88. Answer: (a) Garrett Morgan

The correct answer is Garrett Morgan.

• On November 20, 1923, the U.S. Patent Office grants to 46-year-old inventor and newspaperman Garrett Morgan for his three-position traffic signal.

• Morgan's design used a T-shaped pole unit with three positions. Besides "Stop" and "Go," the system also first stopped traffic in all directions to give drivers time to stop or get through the intersection.

Key Points

• John Peake Knight credited with inventing the traffic light in 1868.

• The first traffic signal was invented by J P Knight, a railway signalling engineer.

• It was installed outside the Houses of Parliament in 1868 and looked like any railway signal of the time, with waving semaphore arms and red-green lamps, operated by gas, for night use.

• George Eastman, an American entrepreneur, and inventor whose introduction of the first Kodak camera helped to promote amateur photography on a large scale.

• Robert Adler invented the first practical, wireless television remote control. Introduced as the "Space Command" by Zenith in 1956.

Q89. Answer: (a) Uttar Pradesh

The correct answer is Uttar Pradesh.

• The largest sugarcane producing state of India is Uttar Pradesh.

• It is estimated to have a sugarcane area at 23.60 lakh hectares.

Additional Information

• Florida is the largest cane-producing region in the United States.

• Brazil is the world's largest sugar producer.

• India is the second-largest producer of sugar in the world after Brazil and is also the largest consumer.

YourMockTest.com — Free Study Material

Q90. Answer: (b) 1967

The correct answer is 1967.

• Goa was liberated from the Portuguese on 19th December 1961 by the armed forces of India.

• The 1962 Election Manifesto of the Indian National Congress stated that whether Goa merged with Maharashtra or not would be decided by the Goans themselves.

• Addressing a public meeting in 1963, the Indian Prime Minister, Pandit Jawarharlal Nehru stated that Goa would remain a Union Territory for ten years after which Goans would decide the future status of Goa by way of a referendum.

Additional Information

• Goa is the smallest Indian state with a coastline of 160 km long.

• It is surrounded by the Indian states of Maharashtra in the north and Karnataka in the east and south, with the Arabian Sea forming its western coast.

• Capital: Panaji.

• Chief minister: Pramod Sawant. (Aprill 2022)

• Governor: Shri P.S. Sreedharan Pillai. (April 2022)

Q91. Answer: (c) $ ÷ * × @ - !

The symbols represents:-

•	**12**
@	48
$	24
!	6

Option 1) * + $ ÷ @ - ! = 12 + 24 ÷ 48 - 6 = 12 + 0.5 - 6 = 5.5.

Option 2) * ÷ ! + $ × @ = 12 ÷ 6 + 24 × 48 = 2 + 1152 = 1154.

Option 3) $ ÷ * × @ - ! = 24 ÷ 12 × 48 - 6 = 2 × 48 - 6 = 90.

Option 4) $ × @ - ! × * = 24 × 48 - 6 × 12 = 1080.

Hence, option 3 is the correct answer.

Q92. Answer: (d) 101

The logic follows here is:-

101 = 1 - 1 = 0,

242 = 2 + 2 = 4,

363 = 3 + 3 = 6,

484 = 4 + 4 = 8,

So, all the middle numbers are addition of the first and the last numbers except 101.

Hence, 101 is the correct answer.

Q93. Answer: (d) Unique code for every character of every language

The correct answer is Unique code for every character of every language.

• Unicode provides a unique number for every character.

• It including punctuation marks, mathematical symbols, technical symbols, arrows, and characters making up non-Latin alphabets such as Thai, Chinese, or Arabic script.

Important Points

• Unicode is an industry-standard for the consistent encoding of written text.

• Unicode defines different character encodings, the most used ones being UTF-8, UTF-16, and UTF-32. UTF-8 is definitely the most popular encoding in the Unicode family, especially on the Web.

Additional Information

• ASCII (American Standard Code for Information Interchange) character set contains 128 characters for English letters, numbers, and some control characters.

• ASCII encoding maps each character to 1 byte with the leading bit set to 0, and the other 7 bits representing the code point of the character.

YourMockTest.com — Free Study Material

Q94. Answer: (a) Kilometer

12 inches make one foot, so, foot is the bigger unit.

Similarly,

1000 meter makes one kilometer, so, Kilometer is bigger unit than meter.

Hence, kilometer is the correct answer.

Q95. Answer: (b) There are a minimum of 36 people in the party.

Explanation:

12 couples = 24 people

And every couple has at least one child

=> Minimum 12 children

Therefore Total 24 + 12 = 36 People

There are a minimum of 36 people in the party.

Other Inferences are not possible.

Q96. Answer: (b) 168

Explanation:

From the table,

Number of Students are of height < 130 cm = 180

Number of Students are of height < 100 cm = 12

Therefore Number of Students are of height <130 but > 100cm = 180 - 12 = 168

Q97. Answer: (d) Global Positioning System

The correct answer is Global Positioning System.

Important Points

• GPS, or the Global Positioning System, is a global navigation satellite system that provides location, velocity, and time synchronization.

• The satellite system consists of a constellation of 24 satellites in six Earth-centered orbital planes.

• Each with four satellites, orbiting at 13,000 miles (20,000 km) above Earth and traveling at a speed of 8,700 mph (14,000 km/h).

• GPS is made up of three different components, called segments, that work together to provide location information.

• The three segments of GPS are:

• Space (Satellites) — The satellites circling the Earth, transmitting signals to users on geographical position and time of day.

• Ground control — The Control Segment is made up of Earth-based monitor stations, master control stations, and ground antenna. Control activities include tracking and operating the satellites in space and monitoring transmissions.

• User equipment — GPS receivers and transmitters including items like watches, smartphones, and telematics devices.

Key Points

• GPS works through a technique called trilateration.

• It is used to calculate location, velocity, and elevation, trilateration collects signals from satellites to output location information.

Additional Information

• The first launch of Russia's Sputnik I satellite in 1957, for the possibility of geolocation capabilities.

• The Indian Regional Navigation Satellite System (IRNSS) is officially called NAVIC which is an acronym for NAVigation with Indian Constellation.

• The regional geo-positioning system has been designed in India by ISRO to provide accurate positioning in India and around the Indian mainland.

Q98. Answer: (a) Profit 4.7%

Given:

C.P for 25 litres of milk = Rs. 800

S.P for 1 litre of milk = Rs. 33.5

Formula used:

Profit = S.P - C.P

Profit% = (Profit/C.P) × 100

Calculation:

S.P for 25 litres of milk = 25 × 33.5 = Rs. 837.5

YourMockTest.com — Free Study Material

Given,

C.P for 25 litres of milk = Rs. 800

Therefore Profit = 837.5 - 800 = Rs. 37.5

Profit% = (37.5/800) × 100

=> 4.6875%

Therefore Profit% (rounded off) = 4.7%

Q99. Answer: (d) 2 m

Given:

Volume of the Reservoir = 42000 L = 42 m^3

Length = 6m and breadth = 3.5 m (can take vice versa also)

Formula used:

The volume of Cuboid = Length × Breadth × Height

Calculation:

Let 'h' be the depth of the reservoir (Depth can be considered as height)

42 = 6 × 3.5 × h

=> h = 42/(6 × 3.5)

=> h = 2

The depth of water in the reservoir = 2 m

Q100. Answer: (a) ab/(b - a)

Calculation:

(a-1 + b-1) ÷ (a -2 - b -2)

=> [(1/a) + (1/b)]/[(1/a^2) - (1/b^2)]

=> [(a + b)/ab]/[(b^2 - a^2)/(a^2b^2)]

=> [(a + b) × ab]/(b2 - a2)

=> [(a + b) × ab]/[(b + a) (b - a)]

=> ab/(b - a)

Q101. Answer: (c) Pallavas

The correct answer is Pallavas.

• The Kanchi Kailasanathar temple is the oldest structure in Kanchipuram. Located in Tamil Nadu, India.

• The temple was built from 685-705 AD by a Rajasimha ruler of the Pallava Dynasty.

• It is a Hindu temple (dedicated to Lord Shiva) in the Dravidian architectural style.

Additional Information

• Brihadisvara Temple at Thanjavur was built during the reign of the Chola emperor Rajaraja and designed by the famous architect Sama Varma between 1003 and 1010 AD.

• Tiruvalisvaram Temple at Brahmadesam, Uttarakailash temple at Tiruvadi, Rajarajeshwar temple at Tanjore, Airavatesvara Temple at Darasuram was built by Chola emperor Rajaraja II and the temple is dedicated to Lord Shiva.

• Some famous temple built during the period of Cheras:

• The Thirunelli Temple, the Vadakkunnathan Temples, Kodungallur Bhagavathy Temple, and Kandiyur Siva Temple.

Q102. Answer: (c) Srinivasa iyengar

The correct answer is Srinivasa Iyengar.

• Jawaharlal Nehru along with Srinivasa Iyengar and Subhash Chandra Bose founded the Independence for India League in the year 1928 which put forth the demand for complete independence.

• Srinivasa Iyengar was its first president.

• Indian Independence League was a political organization operated from the 1920s to the 1940s to organize those living outside India into seeking the removal of British colonial rule over India.

• The ‘Independence for India League’ was founded in opposition to the Nehru Report agreements.

Important Points

YourMockTest.com — Free Study Material

Rash Behari Bose	**• He played a crucial role in the Ghadar Revolution, a plan to attack the British army from the inside. - He was the founding father of the Indian National Army (Azad Hind Fauz) that Subhash Chandra Bose capitalized on later. - The famous Bomb attack on Lord Hardinge by Rash Behari Bose. - Japanese Government honored Rash Behari bose with 'Second Order of the Merit of the Rising Sun'.**
Jawaharlal Nehru	• He was independent India's first Prime Minister, he assumed the office in 1947. - His birth anniversary is celebrated as 'Children's Day' in India because of his advocacy for the cause of children's education. He was popularly called Chacha Nehru by children.
Subhas Chandra Bose	• Netaji Subhash Chandra Bose was born on January 23, 1897, in Orissa, Bengal division. - Netaji with the help of Japan organized the Azad Hind Fauj or Indian National Army (INA). - He also established the Azad Hind Radio station in Germany. - His famous speech 'Give me blood, and I shall give you freedom!' was made in Burma in 1944 to members of the Indian National Army.

Q103. Answer: (b) 117

Calculation:

Cultivated land in Uttar Pradesh in 2012 = 143 lakh hectares

Cultivated land in Rajasthan in 2012 = 26 lakh hectares

=> Required difference = 143 - 26 = 117 lakh hectares

Therefore Cultivated land in Uttar Pradesh is 117 lakh hectares more than that in Rajasthan in 2012

Q104. Answer: (c) 190

Calculation:

Total cultivated land of Maharashtra in all the 3 years put together = 80 + 150 + 175 = 405 lakh hectares

Total cultivated land of Madhya Pradesh in all the 3 years put together = 40 + 85 + 90 = 215 lakh hectares

Therefore The required difference = 405 - 215 = 190 lakh hectares

Q105. Answer: (a) 20

Calculation:

Cultivated land in Punjab in the year 2011 = 220 lakh hectares

Cultivated land in Punjab in the year 2013 = 264 lakh hectares

=>Increased area of land = 264 - 220 = 44 lakh hectares

The required % = (44/220) × 100 = 20%

Q106. Answer: (c) 26

No of students who like only science =(40 - 14) = 26

Hence, "26" is the correct answer.

Q107. Answer: (b) 14

In a class of 55 students, 40 like Science and 29 like Mathematics,

so, number of students who like both science and math are = 55 - (40 + 29) =14

Hence,"14" is the correct answer.

Q108. Answer: (b) LQFJC

Similarly

So, here we can see that every alphabet is increasing by 2.

Hence," LQFJC " is the correct answer.

Q109. Answer: (b) 0.25

Calculation:

Total number of people = 832

Number of people who own a car = 624

=> Number of people who don't own a car = 832 - 624 = 208

Therefore The probability that the person will not be an owner of a car = 208/832

=> 0.25

Q110. Answer: (a) 2017-18

The correct answer is 2017-18.

• The decision to merge both the budgets was based on the recommendations of the committee chaired by Member of NITI Aayog, Bibek Debroy.

• The 93-year old exercise of presenting a separate Railway Budget was removed by the Narendra Modi government on 21 September 2016.

• the BJP-led government decided to merge both the budgets- the Railway Budget and the Union Budget from the year 2017-18.

Key Points

• The Finance Ministry will prepare and present a single Appropriation Bill, including the estimates of railways.

• The current rail minister is Piyush Goyal (September 2017 – Present).

• Vinod Kumar Yadav has made history by becoming the first Chief Executive Officer of the Railway Board.

Additional Information

• Independent India's first railway budget was presented by the first finance minister of the country Sir R.K. Shanmugham Chetty on November 26, 1947.

• West Bengal Chief Minister Mamata Banerjee was the first women Railway minister of India as well as the first female Minister to present the Railway Budget in 2000.

• Dalhousie was the "Father of Indian Railways".

• He introduced a new system of internal communication in India in 1853.

• NOTE:

• Current rail minister: Ashwini Vaishnav. (Feb 2022)

• Chief Executive Officer of the Railway Board: VK Tripathi

Q111. Answer: (a) 1.8 < x < 8.6

Given:

The 2 sides of a triangle as 3.4 cm and 5.2 cm

Concept:

Sum of any two sides of a triangle is greater than the third side and difference of any two sides of a triangle is less than the third side.

Calculation:

Here,

Sum = 3.4 + 5.2 = 8.6

Difference = 5.2 - 3.4 = 1.8

=> The third side should lie in the range between 1.8 and 8.6

Therefore If x is the length of the third side, then 1.8 < x < 8.6

Confusion PointsOption 4 3.4 < x < 5.2 lie b/w 1.8 < x < 8.6 this one, option 4 also lie on this range but, option one is more accurate. that's why we have taken the option 1 is the correct answer.

Q112. Answer: (b) 1370

Given:

Simple interest at 4% per annum on the first Rs. 5500

Simple interest of 6% for amounts above that

Total amount deposited = Rs. 13250

Number of years = 2

Formula used:

S.I = (P × N × R)/100

Calculation:

The amount above Rs.5500 is (13250 - 5500) = 7750

S.I = [(5500 × 4/100) + (7750 × 6/100)] × 2

=> (220 + 465) × 2

=> 685 × 2

=> 1370

Therefore The interest earned by Sameera is Rs. 1370.

Q113. Answer: (c) Granddaughter

Family chart :-

From the given data the logic follows here is :-

Family tree :-

Here, The "B" is Grand Daughter of "E".

Thus, the correct answer is "Grand Daughter".

Q114. Answer: (d) Cannot be determined

Family chart :-

From the given data the logic follows here is :-

Family tree :-

Here, The gender of "D" is not specified.

Hence, the answer is "cannot be determined".

Q115. Answer: (a) Minimum 5

Family chart:-

From the given data the logic follows here is :-

Family tree :-

Hence, There are minimum 5 females in the family.

Thus, the correct answer is "minimum 5".

Q116. Answer: (c) Neither I nor II follows.

The least possible Venn diagram for the given statements is as follows,

Conclusion:

I. All rats are dogs → False (From statement 2, No cats are rats then there will be no relation with dogs also).

II. Some dogs are rats → False (From statement 1,2, There is no relation for rats with respect to cats and dogs).

Hence, Both Conclusions are Complimentary pairs.

Thus, Both conclusions are False the answer is "Neither I nor II follows".

Additional Information

Q117. Answer: (d) $\cot^2\theta$ -1

Concept:

$(1/\tan\theta) = \cot\theta$

Calculation:

$(1/\tan\theta) = \cot\theta$

$\Rightarrow (1/\tan^2\theta) = \cot^2\theta$

Now,

$(1 - \tan2\theta)/\tan2\theta = (1/\tan2\theta) - (\tan2\theta/\tan2\theta)$

$\Rightarrow (1 - \tan2\theta)/\tan2\theta = \cot2\theta - 1$

Q118. Answer: (c) Khangchendzonga National Park

The correct answer is Khangchendzonga National Park.

• It was inscribed to the UNESCO World Heritage Sites list in July 2016, becoming the first "Mixed Heritage" site of India.

• Khangchendzonga National Park Located at the heart of the Himalayan range in northern India (State of Sikkim).

• It is located Eastern part of Nepal on the border of Sikkim and about 20 kilometers south of Tibet.

• It is the world's third-highest peak.

Important Points

• Mountain Railways of India was inscribed to the UNESCO World Heritage Sites list in 1999.

• The Mountain Railway of India consists of three railways:

• The Darjeeling Himalayan Railway located in the foothills of the Himalayas in West Bengal (Northeast India) having an area of 5.34 ha.

YourMockTest.com — Free Study Material

• The Nilgiri Mountain Railways located in the Nilgiri Hills of Tamil Nadu (South India) having an area of 4.59 ha.

• The Kalka Shimla Railway located in the Himalayan foothills of Himachal Pradesh (Northwest India) having an area of 79.06 ha.

• Western Ghat was inscribed to the UNESCO World Heritage Sites list in 2012.

• The Western Ghats scattered from the mount of the river Tapi to the cape of Kanyakumari for a distance of 1600 km. Its average height is 1200 meters.

• It also has an exceptionally high level of biological diversity and endemism and is recognized as one of the world's eight 'hottest hotspots' of biological diversity.

• Chhatrapati Shivaji Terminus, Mumbai was inscribed to the UNESCO World Heritage Sites list in 2004.

• The Chhatrapati Shivaji Terminus (formerly Victoria Terminus), Mumbai on the Western Part of India touching the shores of the Arabian Sea.

• This building, designed by F. W. Stevens, is spread across a 2.85-hectare area. The terminal was built over a period of 10 years starting in 1878.

Additional Information

• Mount K2 also known as Godwin-Austen is taller than Kangchenjunga but it is located in Pak occupied Kashmir (POK). K2 is the world's second tallest mountain.

Q119. Answer: (c) Progressive tax

The correct answer is Progressive tax.

Key Points:Progressive tax:

• A progressive tax is a tax in which the tax rate increases as the taxable amount increases.

• That means the low tax is imposed on low-income earners compared to those with a higher income.

• Excise duties, Octroi, and House tax all are fixed but income tax is different for different earning people.

Regressive tax:

• A regressive tax is a type of tax that is levied regardless of income, in which low and high-income earners pay the same amount.

• This kind of tax is a bigger burden on low-income earners than on high-income earners.

• The indirect taxes are paid by everyone if anyone buys any product irrespective of financial conditions.

• Regressive tax and Indirect taxes both are levied on everyone.

• Some examples of indirect taxes include sales tax, entertainment tax, excise duty, etc.

Q120. Answer: (d) I

The logic follows here is :-

The given alphabetical series is "Reverse order of Vowels".

Therefore The series follows is U, O, I, E, A.

Thus, the correct answer is 'I'.

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

YourMockTest.com — Free Study Material