EXAM PATTERN

Exam Name	RRB NTPC (Railway Recruitment Board – Non-Technical Popular Categories)
Exam Level	National
Conducting Body	Railway Recruitment Board (RRB)
Posts Covered	Clerk, Typist, Station Master, Goods Guard, Junior Account Assistant, and other non-technical positions
Exam mode	Online (Computer Based Test – CBT)
Frequency	Conducted as per recruitment cycle (not annual; depends on RRB vacancies)
Languages	English, Hindi & other regional languages

RRB NTPC

The Railway Recruitment Board (RRBs) has released the RRB NTPC notification to recruit 11558 vacancies for the posts of NTPC (Non-Technical Popular Categories) in Indian Railways.

The recruitment process will involve the following stages of examination:

1. **1st Stage: Computer-Based Test (CBT-1)**
   Screening test common for all posts. This preliminary examination filters candidates based on fundamental knowledge across general awareness, mathematics, and reasoning abilities.
2. **2nd Stage: Computer-Based Test (CBT-2)**
   Main test with post-specific difficulty levels. This advanced stage evaluates candidates more rigorously with increased question complexity and higher standards.
3. **3rd Stage: Typing Skill Test/Computer-Based Aptitude Test (as applicable)**
   Computer-Based Aptitude Test or Typing Skill Test conducted for certain posts requiring specific technical proficiencies and operational capabilities.
4. **Document Verification/Medical Examination**
   Final stage involving thorough document verification and comprehensive medical examination as per Railway standards to ensure candidate eligibility.

Based on the performance of candidates in the Stage-1 and Stage-2 exams, they would be required to go for the Skill Test/Aptitude Test/Document Verification. There are different tests for candidates appearing for posts such as:

RRB NTPC Selection Process 2025 [Graduate Level]					
S.No.	**Name of the post**	**Level in 7th CPC**	**1st stage CBT**	**2nd stage CBT**	**Skill Test Requirement**
1	Goods Train Manager	5	Common for all posts	Common For all posts	———————
2	Senior Clerk cum Typist	5			Typing Skill Test
3	Junior Account Assistant cum Typist	5			Typing Skill Test
4	Chief Commercial cum Ticket Supervisor	6			———————
5	Station Master	6			Computer Based Aptitude Test

RRB NTPC Selection Process 2025 [Undergraduate Level]					
S.No.	**Name of the post**	**Level in 7th CPC**	**1st stage CBT**	**2nd stage CBT**	**Skill Test Requirement**
1	Junior Clerk cum Typist	2	Common for all posts	Common for all posts	Typing Skill Test
2	Accounts Clerk cum Typist	2			Typing Skill Test
3	Trains Clerk	2			———————
4	Commercial cum Ticket Clerk	3			———————

CBT 1 Exam Pattern

1. The 1st Stage of CBT is of a screening nature and the standard of questions for the CBT will be generally in conformity with the educational standards prescribed for the posts.
2. The exam duration for PWD candidates is 120 Minutes.
3. There will be negative marking and a 1/3 mark shall be deducted for each wrong answer.
4. The total no. of candidates to be shortlisted shall be 20 times the community-wise vacancies of posts notified against the RRB as per their merit in 1st Stage CBT cum choice of posts.
5. The normalized score of 1st Stage CBT shall be used for shortlisting of candidates for 2nd Stage CBT as per their merit.

RRB NTPC Exam Pattern 2025 [Stage-1]			
Sections	**No. of Questions**	**Total Marks**	**Duration**
Mathematics	30	30	**90 minutes**
General Intelligence and Reasoning	30	30	
General Awareness	40	40	
Total	**100**	**100**	

Minimum percentage of marks for eligibility in various categories: UR-40%, EWS40%, OBC (Non creamy layer) -30%, SC-30%, ST-25%. These percentage marks for eligibility may be reduced by 2% for PwBD candidates in case of a shortage of PwBD candidates against vacancies reserved for them.

CBT 2 Exam Pattern

Candidates who are shortlisted for 2nd Stage CBT availing the reservation benefits of OBC(NCL)/SC/ST/EWS, PwBD and ExSM shall continue to be considered only against OBC(NCL)/SC/ST/EWS, PwBD and ExSM for all subsequent stages of the recruitment process.

1. The exam duration for PWD candidates is 120 Minutes.
2. A negative marking of 1/3 is there.
3. The level of questions will be different for the different level of posts.
4. Normalization of marks will be done.

RRB NTPC Exam Pattern 2025 [Stage-2]			
Sections	**No. of Questions**	**Total Marks**	**Duration**
Mathematics	35	35	**90 minutes**
General Intelligence and Reasoning	35	35	
General Awareness	50	50	
Total	**120**	**120**	

SKILL TESTS

Computer-Based Aptitude Test (CBAT)

CBAT will be conducted only for candidates who have opted for Station Master.

1. Qualifying marks: The candidates need to secure a minimum T-Score of 42 marks in each of the test batteries to qualify.
2. This applies to all candidates irrespective of community or category and no relaxation in the minimum T- Score is permissible.
3. Candidates will have to qualify in each of the test batteries of CBAT for considering them for the post of SM/TA.
4. The CBAT shall have question-and-answer options only in English and Hindi.
5. There shall be no negative marking in CBAT.
6. The merit list will be drawn only from amongst the candidates qualifying in the CBAT, with 70% weightage for the marks obtained in the 2nd Stage CBT and 30% weightage for the marks obtained in the CBAT.

Typing Skill Test (TST)

The candidates who have applied for Senior Clerk cum Typist and Junior Account Assistant cum Typist posts have to go through Typing Skill Test after CBT-1 and CBT-2.

1. Qualifying in nature.
2. Eight times the number of vacancies will be called for typing test.
3. The candidates should be able to type
   30 words per minute (WPM) in English or
   25 WPM in Hindi on a Personal Computer only without editing tools and a spell check facility.

RRB NTPC Document Verification (DV)

Based on the performance of candidates in 2nd Stage CBT and based on the performance of candidates in both 2nd Stage CBT and CBAT/TST (as applicable), candidates equal to the number of vacancies will be called for Document Verification as per their merit and options.

Document Verification: Candidates must present original documents including educational certificates, caste certificates (if applicable), identity proof, and other relevant credentials for thorough verification.

Medical Examination: Comprehensive medical fitness test conducted as per Railway standards to ensure candidates meet the physical and mental health requirements for railway service.

Final Selection: Final merit list prepared based on performance in CBT 2 combined with CBAT/TST results (if applicable), followed by successful document verification and medical clearance.

S Y L L A B U S

For Graduate

1st Stage Computer Based Test (CBT)

a. Mathematics:

Number System, Decimals, Fractions, LCM, HCF, Ratio and Proportions, Percentage, Mensuration, Time and Work, Time and Distance, Simple and Compound Interest, Profit and Loss, Elementary Algebra, Geometry and Trigonometry, Elementary Statistics etc.

b. General Intelligence and Reasoning:

Analogies, Completion of Number and Alphabetical Series, Coding and Decoding, Mathematical Operations, Similarities and Differences, Relationships, Analytical Reasoning, Syllogism, Jumbling, Venn Diagrams, Puzzle, Data Sufficiency, Statement Conclusion, Statement- Courses of Action, Decision Making, Maps, Interpretation of Graphs etc.

c. General Awareness:

Current Events of National and International Importance, Games and Sports, Art and Culture of India, Indian Literature, Monuments and Places of India, General Science and Life Science (up to 10th CBSE), History of India and Freedom Struggle, Physical, Social and Economic Geography of India and World, Indian Polity and Governance- constitution and political system, General Scientific and Technological Developments including Space and Nuclear Program of India, UN and Other important World Organizations, Environmental Issues Concerning India and World at Large, Basics of Computers and Computer Applications, Common Abbreviations, Transport Systems in India, Indian Economy, Famous Personalities of India and World, Flagship Government Programs, Flora and Fauna of India, Important Government and Public Sector Organizations of India etc.

2nd Stage Computer Based Test (CBT):

a. Mathematics:

Number System, Decimals, Fractions, LCM, HCF, Ratio and Proportions, Percentage, Mensuration, Time and Work, Time and Distance, Simple and Compound Interest, Profit and Loss, Elementary Algebra, Geometry and Trigonometry, Elementary Statistics etc.

b. General Completion Intelligence

Analogies, Completion of Number and Alphabetical Series, Coding and Decoding, Mathematical Operations, Similarities and Differences, Relationships, Analytical Reasoning, Syllogism, Jumbling, Venn Diagrams, Puzzle, Data Sufficiency, Statement Conclusion, Statement- Courses of Action, Decision Making, Maps, Interpretation of Graphs etc.

c. General Awareness

Current Events of National and International Importance, Games and Sports, Art and Culture of India, Indian Literature, Monuments and Places of India, General Science and Life Science (up to 10th CBSE), History of India and Freedom Struggle, Physical, Social and Economic Geography of India and World, Indian Polity and Governance- constitution and political system, General Scientific and Technological Developments including Space and Nuclear Program of India, UN and Other important World Organizations, Environmental Issues Concerning India and World at Large, Basics of Computers and Computer Applications, Common Abbreviations, Transport Systems in India, Indian Economy, Famous Personalities of India and World, Flagship Government Programs, Flora and Fauna of India, Important Government and Public Sector Organizations of India etc.

For Under Graduate

1st Stage Computer Based Test (CBT)

a. Mathematics:

Number System, Decimals, Fractions, LCM, HCF, Ratio and Proportions, Percentage, Mensuration, Time and Work, Time and Distance, Simple and Compound Interest, Profit and Loss, Elementary Algebra, Geometry and Trigonometry, Elementary Statistics etc.

b. General Intelligence and Reasoning:

Analogies, Completion of Number and Alphabetical Series, Coding and Decoding, Mathematical Operations, Similarities and Differences, Relationships, Analytical Reasoning, Syllogism, Jumbling, Venn Diagrams, Puzzle, Data Sufficiency, Statement Conclusion, Statement- Courses of Action, Decision Making, Maps, Interpretation of Graphs etc.

c. General Awareness:

Current Events of National and International Importance, Games and Sports, Art and Culture of India, Indian Literature, Monuments and Places of India, General Science and Life Science (up to 10th CBSE), History of India and Freedom Struggle, Physical, Social and Economic Geography of India and World, Indian Polity and Governance- constitution and political system, General Scientific and Technological Developments including Space and Nuclear Program of India, UN and Other important World Organizations, Environmental Issues Concerning India and World at Large, Basics of Computers and Computer Applications, Common Abbreviations, Transport Systems in India, Indian Economy, Famous Personalities of India and World, Flagship Government Programs, Flora and Fauna of India, Important Government and Public Sector Organizations of India etc.

2nd Stage Computer Based Test (CBT):

a. Mathematics:

Number System, Decimals, Fractions, LCM, HCF, Ratio and Proportions, Percentage, Mensuration, Time and Work, Time and Distance, Simple and Compound Interest, Profit and Loss, Elementary Algebra, Geometry and Trigonometry, Elementary Statistics etc.

b. General Intelligence and Reasoning:

Analogies, Completion of Number and Alphabetical Series, Coding and Decoding, Mathematical Operations, Similarities and Differences, Relationships, Analytical Reasoning, Syllogism, Jumbling, Venn Diagrams, Puzzle, Data Sufficiency, Statement Conclusion, Statement- Courses of Action, Decision Making, Maps, Interpretation of Graphs etc.

c. General Awareness:

Current Events of National and International Importance, Games and Sports, Art and Culture of India, Indian Literature, Monuments and Places of India, General Science and Life Science (up to 10th CBSE), History of India and Freedom Struggle, Physical, Social and Economic Geography of India and World, Indian Polity and Governance-constitution and political system, General Scientific and Technological Developments including Space and Nuclear Program of India, UN and Other important World Organizations, Environmental Issues Concerning India and World at Large, Basics of Computers and Computer Applications, Common Abbreviations, Transport Systems in India, Indian Economy, Famous Personalities of India and World, Flagship Government Programs, Flora and Fauna of India, Important Government and Public Sector Organizations of India etc.

INDEX

RRB (NTPC)

S.NO.	EXAM HELD ON	PAGE NO.
	2016 PAPERS	
1.	28-March-2016-Shift-1	1 - 14
2.	30-March-2016-Shift-3	15 - 28
3.	03-April-2016-Shift-1	29 - 42
4.	19-April-2016-Shift-1	43 - 56
5.	27-April-2016-Shift-3	57 - 78
	2021 PAPERS	
6.	04-January-2021-Shift-2	79 - 95
7.	02-February-2021-Shift-1	96 - 114
8.	05-March-2021-Shift-2	115 - 132
9.	21-March-2021-Shift-2	133 - 149
10.	03-April-2021-Shift-1	150 - 165
	2025 GRADUATE LEVEL PAPERS	
11.	05-June-2025-Shift-1	166 - 180
12.	06-June-2025-Shift-1	181 - 201
13.	09-June-2025-Shift-1	202 - 219
14.	10-June-2025-Shift-1	220 - 237
15.	11-June-2025-Shift-1	238 - 256
16.	12-June-2025-Shift-1	257 - 274
17.	14-June-2025-Shift-1	275 - 292
18.	17-June-2025-Shift-1	293 - 309
19.	20-June-2025-Shift-1	310 - 327
20.	24-June-2025-Shift-1	328 - 345

S.NO.	EXAM HELD ON	PAGE NO.
	2025 UNDERGRADUATE LEVEL PAPERS	
21.	07-August-2025-Shift-1	346 - 361
22.	11-August-2025-Shift-2	362 - 381
23.	14-August-2025-Shift-1	382 - 400
24.	18-August-2025-Shift-1	401 - 417
25.	21-August-2025-Shift-1	418 - 435
26.	28-August-2025-Shift-1	436 - 457
27.	01-September-2025-Shift-1	458 - 477
28.	03-September-2025-Shift-1	478 - 495
29.	04-September-2025-Shift-1	496 - 513
30.	09-September-2025-Shift-2	514 - 530

S.NO.	PRACTICE PAPER	PAGE NO.
1.	Mock Test	532 - 537
2.	Mock Test	538 - 544
3.	Mock Test	545 - 551
4.	Mock Test	552 - 558
5.	Mock Test	559 - 565
6.	Mock Test	566 - 573
7.	Mock Test	574 - 580
8.	Mock Test	581 - 587
9.	Mock Test	588 - 595
10.	Mock Test	596 - 603

2016

Exam Paper – 28 March 2016 (Shift-I)

Railway Recruitment Board

(Non-Technical Popular Categories)

QUESTIONS WITH EXPLANATION

1. Find the odd one out:
Ostrich, Crow, Pigeon, Sparrow.
(1) Ostrich (2) Pigeon
(3) Crow (4) Sparrow

2. Simplify $\sqrt{(1-\sin^2\theta)\div(1-\cos^2\theta)}$
(1) Cotθ (2) Tanθ
(3) Secθ (4) Cosecθ

3. Pick the odd one out:
28, 44, 68, 80, 92
(1) 28 (2) 44
(3) 80 (4) 92

4. How much is one decalitre?
(1) 10 kilolitre (2) 10 litre
(3) 100 litre (4) 10 centilitre

5. Which river used to be called the 'Sorrow of Bengal'?
(1) Brahmaputra (2) Hooghly
(3) Bhagirathi (4) Damodar

6. If TEACHER: BOOKS, DOCTOR: ?
(1) Chalk (2) Cycle
(3) Stethoscope (4) Apron

7. In BRICS, which country is denoted by ' B '?
(1) Bangladesh (2) Belgium
(3) Brazil (4) Bahrain

8. Mrinalini Sarabhai passed away recently. Who was she?
(1) Film Actress (2) Scientist
(3) Classical Dancer (4) Playback Singer

9. Mohan is taller than Rohan but shorter than Farhan. Kannan is shorter than Mohan but taller than Rohan. Shankar is taller than rohan and Farhan who is the tallest?
(1) Mohan (2) Farhan
(3) Shankar (4) Kanan

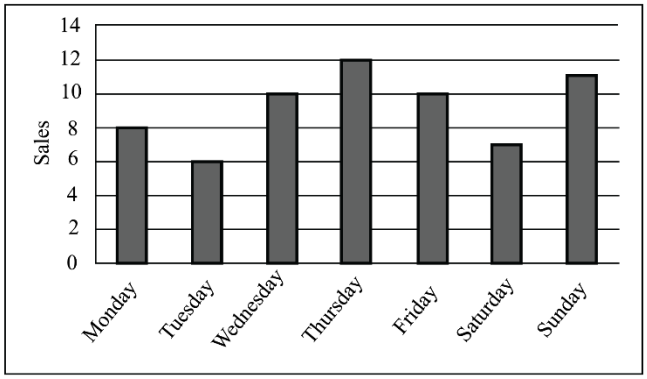
10. In a running race, if you overtake the last but one contestant, which position are you in?
(1) Last (2) Second from last
(3) Third from last (4) Fourth from last

11. What was the name of Maharana Pratap's horse?
(1) Bulbul (2) Chetak
(3) Hayagriva (4) Badal

12. Aman and Ajay can build a wall in 9 days and 12 days respectively. In how many days can they finish the work if they work together?
(1) $5\frac{1}{7}$ (2) $11\frac{1}{2}$
(3) 2 (4) 7

13. Who is thought to have invented the thermo scope?
(1) Galileo Galilei (2) Copernicus
(3) Isaac Newton (4) J. Kepler

14. The number of bicycles sold by a shopkeeper in a particular week is shown below. How many bicycles were sold from Thursday to Sunday?



(1) 39 (2) 38
(3) 40 (4) 36

15. Who is a hacker?
(1) A person who sells goods in the street.
(2) A person who uses computers to gain unauthorized access to dat(1)
(3) A person who only sells computers online.
(4) A person who records phone calls.

16. What is the measure of the two equal angles of a right isosceles triangle?
(1) 30° (2) 45°
(3) 60° (4) 90°

17. Arteries carry blood, that is filled with
(1) Oxygen (2) Carbon dioxide
(3) Toxins (4) Lipids

18. Which of this is not a memorial to a dead person?
(1) Bibi ka Maqbara (2) Taj Mahal
(3) Charminar (4) Itmad Ud Daulah

19. Find two consecutive numbers where thrice the first number is more than twice the second number by 5.
(1) 5 and 6 (2) 6 and 7
(3) 7 and 8 (4) 9 and 10

Comprehension:
Amar, Babu, Cera and Diya were asked to solve a question paper with 4 multiple choice questions with choices $1, 2, 3, 4$. The answer sheet as marked by them is reproduced here.

	Amar	Babu	Cera	Diya
Q1	2	1	1	3
Q2	4	3	2	4
Q3	3	4	3	1
Q4	3	2	2	4

Babu got all answers wrong. Amar's first two answers were definitely wrong. Diya got two answers right but her fourth answer was definitely wrong. Amar and Cera each have got only one correct answer.

20. Which of Cera's question is correct?
(1) Q1 (2) Q2
(3) Q3 (4) Q4

21. Which two answers of Diya is correct?
(1) Q1 and Q2 (2) Q1 and Q3
(3) Q2 and Q3 (4) Q3 and Q4

Comprehension:
Amar, Babu, Cera and Diya were asked to solve a question paper with 4 multiple choice questions with choices $1, 2, 3, 4$. The answer sheet as marked by them is reproduced here.

	Amar	Babu	Cera	Diya
Q1	2	1	1	3
Q2	4	3	2	4
Q3	3	4	3	1
Q4	3	2	2	4

Babu got all answers wrong. Amar's first two answers were definitely wrong. Diya got two answers right but her fourth answer was definitely wrong. Amar and Cera each have got only one correct answer.

22. Whose answer to Q4 is correct?
(1) Amar (2) Babu
(3) Diya (4) None

23. In which State is Karla, famous for its Buddhist caves, located?
(1) Maharashtra (2) Uttar Pradesh
(3) Uttarakhand (4) Madhya Pradesh

24. In the following number series, one missing term is shown by '?'. Choose the missing term from the options below. 6, 12, 20, 30, ?, 56, 72
(1) 40 (2) 42
(3) 44 (4) 48

25. When was the Indian Constitution amended for the first time?
(1) 1949 (2) 1951
(3) 1952 (4) 1953

26. Circle: Circumference as Square:
(1) Sides (2) Area
(3) Perimeter (4) Diagonal

27. With which sport is Karnam Malleswari associated?
(1) Tennis (2) Swimming
(3) Athletics (4) Weightlifting

28. Which was the first satellite to orbit our Moon?
(1) Luna 2 (2) Luna 10
(3) Apollo 10 (4) Apollo 11

29. What should be subtracted from 107.03 to get 96.4?
(1) 1.63 (2) 10.63
(3) 10.53 (4) 9.63

30. Which number will be in the middle if the following numbers are arranged in descending order?
4456, 4465, 4655, 4665, 4565
(1) 4456 (2) 4465
(3) 4565 (4) 4655

31. Find the product of square root of 16 and square of 4?
(1) 8 (2) 64
(3) 16 (4) 256

32. Which of the following is true?
(1) 1 Gigabyte $= 1024$MB
(2) 1 Gigabyte $= 1{,}000{,}000$ Kilobytes
(3) 1 Gigabyte $= 10{,}000$MB
(4) 1 Gigabyte $= 100{,}000$ KB

33. If 'A' is the son of 'B' and is the father of 'C', how is 'B' related to 'C'?
(1) Father (2) Son
(3) Grandparent (4) Grandchild

34. XCVI denotes
(1) 116 (2) 496
(3) 96 (4) 84

35. World Tuberculosis (TB) day is observed on?
(1) 28^{th} March (2) 24^{th} March
(3) 24^{th} May (4) 28^{th} May

36. Unscramble the letters 'CCITRKE' to form an English word and find the fifth letter of the unscrambled word?
(1) C (2) K
(3) E (4) I

37. Which of the following are called supplementary angles?
(1) Angles totalling $180°$ (2) Angles totalling $135°$
(3) Angles totalling $75°$ (4) Angles totalling $90°$

38. Who gave the slogan 'Do or Die' during India's freedom struggle?
(1) Veer Savarkar
(2) Nethaji Subhas Chandra Bose
(3) Mahatma Gandhi
(4) Subramanya Bharati

39. Rajiv said, pointing to a girl, "She is the only daughter of the father of my sister's brother". If so how is the girl related to Rajiv?
(1) Mother (2) Aunt
(3) Sister (4) Sister-in-law.

40. A man buys 144 oranges for Rs. 360 and sells them at a gain of 10%. At what rate per dozen does he sell them?
(1) 25 (2) 30
(3) 33 (4) 36

41. Arrange the following word in alphabetical order and find the third word?
Singer, Single, Sinister, Simple.
(1) Single (2) Singer
(3) Sinister (4) Simple

Comprehension:
Read the following information and answer the following questions.
In a class of 40 students, 28 can speak Tamil and 30 can speak Telugu.
All students can speak at least one of the two languages.

42. Find the number of persons who can speak only Telugu?
(1) 8 (2) 10
(3) 12 (4) 14

Comprehension:
Read the following information and answer the following questions.
In a class of 40 students, 28 can speak Tamil and 30 can speak Telugu.
All students can speak at least one of the two languages.

43. Find the number of students who can speak only Tamil.
(1) 8 (2) 10
(3) 12 (4) 14

Comprehension:
Read the following information and answer the following questions.
In a class of 40 students, 28 can speak Tamil and 30 can speak Telugu.
All students can speak at least one of the two languages.

44. Find the minimum number of students who can speak both Tamil and Telugu.
(1) 12 (2) 15
(3) 18 (4) 22

45. The function of the lens in our eyes is to
(1) Cover the eyes
(2) Send messages of images to the brain
(3) Change the focal distance of the eye
(4) Protects eyes from injury.

46. How many moons does the planet Mars have?
(1) 1 (2) 2
(3) 3 (4) 4

47. In India who is the executive head of the state?
(1) Prime Minister
(2) The President
(3) The Chief justice of Supreme Court
(4) The Governor

48. The product of 2 numbers is 35828 and their HCF is 26. Find their LCM.
(1) 931788 (2) 689
(3) 1378 (4) 3583

49. Which is the capital of Cyprus?
(1) Nicosia (2) Polis
(3) Lamaca (4) Araddipou

50. If your father were your mother, your mother your brother, your brother your sister and your sister your father, how would you call your sister?
(1) Father (2) Mother
(3) Brother (4) Sister

51. Raj scored $67, 69, 78$, and 88 in 4 of his subjects. What should be his score in the 5^{th} subject so that his average equals 80?
(1) 88 (2) 90
(3) 96 (4) 98

52. Who invented Penicillin?
(1) Ian Fleming
(2) Alexander Fleming
(3) Stephen Hawking
(4) Alexander Graham Bell

53. Aruna Asaf Ali is remembered for hoisting the Indian National Congress Flag at
(1) Non-cooperation Movement.
(2) Civil Disobedience Movement
(3) Self-rule Movement
(4) Sulf-ule Movement

54. In 2014, the ___ Lok Sabha was elected.
(1) 16^{th} (2) 19^{th}
(3) 14^{th} (4) 23^{rd}

55. Which boxer is nicknamed 'The Real Deal'?
(1) Mike Tyson (2) Mohammed Ali
(3) Evander Holyfield (4) Joe Louis

56. If Christmas was on Sunday in 2011, what day will it be in 2012?
(1) Monday (2) Tuesday
(3) Wednesday (4) Thursday

Comprehension:
Read the following information and answer the following questions.
Five girls are sitting in front, facing you.
Ruhi and Manali respectively are sitting to the right and left of Urja.
Dhwani is sitting between Manali and Tanya.

57. How many girls are there between Dhwani and Ruhi?
(1) 1 (2) 2
(3) 3 (4) 4

Comprehension:
Questions.
Five girls are sitting in front, facing you.
Ruhi and Manali respectively are sitting to the right and left of Urja.
Dhwani is sitting between Manali and Tanya.

58. Who is sitting in the middle?
(1) Dhwani (2) Urja
(3) Manali (4) Tanya

Comprehension:
Read the following information and answer the following questions.
Five girls are sitting in front, facing you.
Ruhi and Manali respectively are sitting to the right and left of Urja.
Dhwani is sitting between Manali and Tanya.

59. Who is sitting to the right of Tanya?
(1) Ruhi (2) Manali
(3) Dhwani (4) Urja

60. The Rowlatt Act was passed in which year?
(1) 1919 (2) 1921
(3) 1923 (4) 1916

61. Blunt: Sharp as Sow:
(1) Reap (2) Seeds
(3) Farmer (4) Crop

62. Which among the below choices can cause a Tsunami (also known as harbor wave)
(1) Under sea earthquakes
(2) Typhoon
(3) Volcanic eruptions on land
(4) Drought

63. Find the odd one out.
1, 8, 27, 36, 125, 216
(1) 1 (2) 8
(3) 36 (4) 216

64. Calculate the amount on Rs.37,500 @ 8% p.a compounded half yearly for $1\frac{1}{2}$ years.
(1) Rs.42,182.40 (2) Rs.42,000
(3) Rs.42,120 (4) Rs.42,812.40

65. How many prime numbers are there between 50 and 100?
(1) 6 (2) 10
(3) 13 (4) 5

66. What percent of 1 hour is 1 minute and 12 seconds?
(1) 2% (2) 12%
(3) 11% (4) 1.2%

67. Find the odd one out : External Hard drive, Keyboard, Digital camera, Compact Disc
(1) External Hard drive (2) Keyboard
(3) Digital camera (4) Compact Disc

68. Three bells ring at intervals of 15, 20 and 30 minutes respectively. If they all ring at $11.00\ \text{a.m.}$ together, at what time will they next ring together?
(1) 11.30 am. (2) 12 noon
(3) 12.30p.m. (4) 1.00p.m.

69. When did Vasco da Gama land in India?
(1) 1492 (2) 1498
(3) 1948 (4) 1857

70. Five students Priyanka, Mary, Sunil, Asha and Ryan are standing in a line. Priyanka and Sunil are standing ahead of Ryan. Sunil is standing between Ryan and Asha. Between Sunil and Mary, Ryan is standing. Who is the first in the line?
(1) Asha (2) Sunil
(3) Ryan (4) Priyanka

71. From the following which is an example of a single-celled organism?
(1) Protozoa (2) Anthropods
(3) Echinoderms (4) Annelids

72. A's height is $5/8^{th}$ of B's height. What is the ratio of B's height to A's height?
(1) 5: 8 (2) 3: 8
(3) 5: 3 (4) 8: 5

73. Which of the following is also called Marsh Gas?
(1) Propane (2) Ethane
(3) Methane (4) Butane

74. A man travelling by bus finds that the bus crosses 35 electric poles in 1 minute and the distance between 2 poles is 50 metres. Find the speed of the bus.
(1) 112 km/hr. (2) 102 km/hr.
(3) 110 km/hr. (4) 120 km/hr.

75. If $\text{AMERICA} = 1734651$, $\text{INDIA} = 68961$, how will you write CANADA ?
(1) 719181 (2) 518191
(3) 519581 (4) 715148

76. Two-thirds of children are in the age group 1-12 years. Of this, if three-fourths are in the age group of 1-8 years find the fraction of children in the age group of 9-12 years?
(1) 1/3 (2) 1/4
(3) 1/6 (4) 1/2

77. Where can you find the Golden Temple of Dambulla?
(1) Amritsar (2) Sri Lanka
(3) Indonesia (4) Malaysia

78. If $\text{COW} = 41$, $\text{GOAT} = 43$, then $\text{DOG} = ?$
(1) 47 (2) 38
(3) 25 (4) 26

79. In a company 10 employees get a salary of Rs.36,200 each and 15 employees get a salary of Rs.33,550 each. What is the average salary per employee?
(1) 34,875 (2) 34,610
(3) 27,900 (4) 36,410

80. Ram is 4 times his son's age today. Five years hence, Ram will be thrice his son's age. Find their current ages?
(1) 60,15 (2) 40,10
(3) 20,5 (4) 32,8

81. Meena took a car loan for Rs.275,000 from the bank. She paid an interest @ 8% p.a. and settled the account after 3 years.
At the time of settlement she gave her old scooter to the bank plus Rs.335,000. What price did the scooter fetch?
(1) 60,000 (2) 6,000
(3) 66,000 (4) 6,600

82. The distance between two places, $\mathbf{A}$ and $\mathbf{B}$, is 300 km. Two riders, on scooters start simultaneously from $\mathbf{A}$ and $\mathbf{B}$ towards each other. The distance between them after 2.5 hrs is 25 km. If the speed of one scooter is $\mathbf{10\ km/hr}$ more than the other, find the speed of each scooter in $\mathbf{km/hr}$.
(1) 50 and 60 (2) 30 and 40
(3) 40 and 50 (4) 60 and 70

83. Emperor Ashoka was the successor of?
(1) Chandragupta Maurya (2) Bindusara
(3) Susima (4) Dasharatha

84. The dance form Kuchipudi originated from which part of India?
(1) Tamil Nadu (2) Maharashtra
(3) Andhra Pradesh (4) Odisha

85. Who is believed to have built the Konark Temple?
(1) Raja Kulothunga (2) Narasimha Deva I
(3) Vishnugopa (4) Mahipala

86. A seven-sided polygon is called
(1) Nonagon (2) Hexagon
(3) Heptagon (4) Octagon

87. Julia started walking towards North direction from her house. After a while she turned left and later on turned right. She further turned right. Which direction is she facing now?
(1) East (2) West
(3) North (4) South

88. Read statements 1 and 2. Also read the conclusions 3 and 4 drawn from the statements.
Statement:
1. Some birds are Donkeys.
2. All donkeys are stupid.

Conclusions:
3. All birds are stupid.
4. Some birds are stupid.

Choose which of the conclusions are right.
(1) Only 3 is correct
(2) Only 4 is correct
(3) Both 3 and 4 are correct
(4) Neither 3 nor 4 is correct

89. What is the desert adjoining the Thar desert called in Pakistan?
(1) Gobi (2) Cholistan
(3) Sukkur (4) Mirpur

90. If $\mathbf{Cot\ A = \frac{12}{5}}$ then $\mathbf{(SinA + CosA) \times CosecA}$ is?
(1) $12/5$ (2) $17/5$
(3) $11/5$ (4) 2

91. Science of the study of preserved remains or traces of animals, plants, and other organisms from the remote past is called
(1) Anthropology (2) Archaeology
(3) Paleontology (4) Pharmacology

92. If $\mathbf{(a^2 - b^2) \div (a + b) = 25}$, find $\mathbf{a - b}$.
(1) 15 (2) 18
(3) 25 (4) 30

93. Atomic weight of an element is compared with which of the following to get the atomic weight of that element?
(1) Oxygen (2) Carbon
(3) Hydrogen (4) Nitrogen

94. What is the shape of the Earth?
(1) Perfect hemisphere (2) Mostly flat
(3) Perfect Sphere (4) Oblate Sphere

95. Which two teams played the first official international cricket match?
(1) England and Australia
(2) England and West Indies

(3) USA and Canada
(4) Australia and India

96. Which is the smallest continent?
(1) Australia (2) Antarctica
(3) Africa (4) South America

97. A man sells a table for Rs.4200 at 25% loss. At what price must he sell to get a profit of % ?
(1) 1,400 (2) 8,400
(3) 7,000 (4) 5,600

98. As the frequency of a wave increases, what happens to its wavelength?
(1) It increases
(2) It remains same
(3) It decreases
(4) There is no connection between the two

99. A tank can be filled by two taps X and Y in 5 hrs and 10 hrs respectively while another tap Z empties the tank in 20 hrs. In how many hours can the tank be filled if all 3 taps are kept open?
(1) 5 (2) 4
(3) 7 (4) 8

100. Anil bought 100 eggs at Rs.6 per egg. He sold 25 eggs at 10% profit, another 25 eggs at 25% loss and the balance 50 eggs at 20% profit. Find the overall profit or loss percent Anil made?
(1) 10% loss (2) 10% profit
(3) 8% profit (4) 12% loss

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

EXPLANATION

1. Explanation: (1)
The ostrich is the odd one out because, unlike the crow, pigeon and sparrow, it cannot fly.

2. Explanation: (1)
$x = \sqrt{(1 - \sin^2\theta) \div (1 - \cos^2\theta)}$
By using Pythagorean identity:
$\sin^2\theta + \cos^2\theta = 1$
$$x = \sqrt{\frac{(1 - \sin^2\theta)}{(1 - \cos^2\theta)}} = \sqrt{\frac{\cos^2\theta}{\sin^2\theta}} = \sqrt{\cot^2\theta} = \cot\theta$$

3. Explanation: (3)
$28 = 7 \times 4$
$44 = 11 \times 4$
$68 = 17 \times 4$
$80 = 20 \times 4$
$92 = 23 \times 4$
Hence, all the given numbers are multiple of four and a prime number except 80

4. Explanation: (2)
$\mathbf{1}$ decalitre $= 10$ litre

5. Explanation: (4)
The Damodar river was historically known as the "Sorrow of Bengal" because it frequently caused devastating floods in the plains of West Bengal and Bihar before the construction of dams and barrages for flood control and irrigation.

6. Explanation: (3)
Teachers impart knowledge through books. Similarly, doctors examine patients using a stethoscope

7. Explanation: (3)
Countries come under BRICS:
Brazil, Russia, India, China, and South Africa

8. Explanation: (3)
Mrinalini Sarabhai, the wife of the late Indian scientist Vikram Sarabhai, was a renowned Indian classical dancer, choreographer, and teacher. She founded and directed the Darpana Academy of Performing Arts in Ahmedabad, an institution dedicated to training in dance, drama, music, and puppetry.

9. Explanation: (3)
Farhan > Mohan > Rohan … eq1

Mohan > Kannan > Rohan … eq2
Shankar > Rohan & Farhan … eq3
From all given equations
Shankar > Farhan > Mohan > Kannan > Rohan

10. Explanation: (2)
Second from last

11. Explanation: (2)
Chetak is the legendary horse of Maharana Pratap. Maharana Pratap rode Chetak during the Battle of Haldighati, which took place on 21 June 1576 in the Aravalli Mountains of Rajasthan.

12. Explanation: (1)
Aman's 1 day work $= \frac{1}{9}$ unit
Ajay's 1 day work $= \frac{1}{12}$ unit
Time taken by Aman & Ajay together to finish work is
$\frac{1}{T} = \frac{1}{9} + \frac{1}{12} = \frac{7}{36}$
$T = \frac{36}{7} = 5\frac{1}{7}$ days

13. Explanation: (1)
The thermo scope is a device similar to a thermometer but without a scale, served as the forerunner of the modern thermometer. Italian scientist Galileo Galilei invented the thermo scope and also refined the design of the telescope.

14. Explanation: (3)
No. of cycles sold from Thursday to Sunday is
$N = 12 + 10 + 7 + 11 = 40$

15. Explanation: (2)
A person who uses computers to gain unauthorized access to data is known as a hacker.

16. Explanation: (2)
The sum of all angles in a right angle isosceles triangle is
$x + x + 90^\circ = 180^\circ$
$2x = 90^\circ$
$x = 45^\circ$

17. Explanation: (1)
Arteries carry blood that is filled with oxygen.

18. Explanation: (3)
Charminar was constructed at the heart of the city to commemorate the eradication of cholera, a deadly epidemic that had spread widely at the time. Muhammad Quli Qutb Shah is said to have prayed for relief from the plague.

19. Explanation: (3)
Let two consecutive numbers be x and $x + 1$
From the question
$3x - 2(x + 1) = 5$
$x = 7$
$x + 1 = 8$

20. Explanation: (2)
Babu: all wrong → Q1 ≠ 1, Q2 ≠ 3, Q3 ≠ 4, Q4 ≠ 2
Amar: Q1, Q2 wrong; only one correct
Diya: 2 correct; Q4 wrong
Cera: only one correct
By analysing question step - by - step
From Diya, likely correct → Q = 3 and Q3 = 1.
To give Amar one correct → Q4 = 3.
To give Cera one correct → Q2 = 2.
Final correct answers:
Q = 3, Q2 = 2, Q3 = 1, Q4 = 3
Hence, Cera's correct question is Q2.

Amar, Babu, Cera and Diya were asked to solve a question paper with 4 multiple choice questions with choices 1,2,3,4. The answer sheet as marked by them is reproduced here.

	Amar	Babu	Cera	Diya
Q1	2	1	1	3
Q2	4	3	2	4
Q3	3	4	3	1
Q4	3	2	2	4

Babu got all answers wrong. Amar's first two answers were definitely wrong. Diya got two answers right but her fourth answer was definitely wrong. Amar and Cera each have got only one correct answer.

21. Explanation: (2)
Step 1 – By eliminating impossible answers
Using Babu's wrong answers:

Q	Not Possible
Q1	1
Q2	3
Q3	4
Q4	2

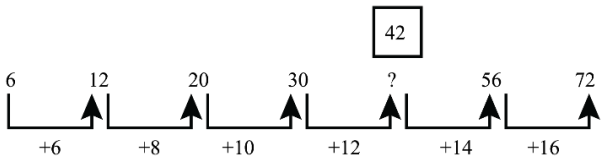
Step 2 – From Diya's condition
$Q4 = 4\ (\text{Incorrect})$
So 2 is correct among $(Q1 = 3, Q2 = 4, Q3 = 1)$
Step 3 - Check Amar
$Q1 = 2\ (\text{Incorrect})$
$Q2 = 4\ (\text{Incorrect})$
So Amar's only one correct must be $Q3 = 3$ or $Q4 = 3$.
Step 4 – By finding consistency
If $Q4 = 3$ is correct, Cera$(Q4 \neq 2) \rightarrow$ Cera's correct must be $Q2 = 2$.
So correct answers → $Q1 = 3$, $Q2 = 2$, $Q3 = 1$, $Q4 = 3$
Step 5 – By verifying Diya
Diya $= (3, 4, 1, 4)$
$Q1 = 3\ (\text{Correct})$
$Q2 = 4\ (\text{Incorrect})$
$Q3 = 1\ (\text{Correct})$
$Q4 = 4\ (\text{Incorrect})$
Diya's correct = Q1 and Q3

22. Explanation: (1)
Given:
- Babu: all wrong → $Q4 \neq 2$
- Diya: 2 right, but Q4 wrong → $Q4 \neq 4$
- Amar: Q1, Q2 wrong, only 1 is correct overall
- Cera: only 1 is correct

Solution:
Since $Q4 \neq 2$ and $Q4 \neq 4$, the correct Q4 must be 1 or 3.
Amar answered $Q3 = 3$ and $Q4 = 3$. Since only one can be correct:
If $Q4 = 3$ is correct → Amar gets his one correct answer
By testing $Q4 = 3$
Amar: $Q4 = 3$ is correct
Diya: $Q4 = 4$ is wrong
Babu: $Q4 = 2$ is wrong
Cera: $Q4 = 2$ is wrong
This satisfies all conditions.
Answer: Amar

23. Explanation: (1)
The Karla Caves, located at Karli near Lonavala in Maharashtra, are an ancient complex of Buddhist rock - cut caves situated about 10.9 kilometres from Lonavala.

24. Explanation: (2)



25. Explanation: (2)
The First Amendment to the Constitution of India, enacted in 1951, introduced several modifications to the provisions related to Fundamental Rights.

26. Explanation: (3)
The circumference refers to the length measured along the boundary of a circle, while the perimeter represents the total length around a square.

27. Explanation: (4)
Karnam Malleswari is a retired Indian weightlifter and the first woman in India's Olympic history to win a medal in weightlifting.

28. Explanation: (2)
Luna 10 was a Soviet robotic spacecraft mission from the Luna program launched in 1966. It became the first artificial satellite to orbit the Moon.

29. Explanation: (2)
$N = 107.03 - 96.40 = 10.63$

30. Explanation: (3)
4665, 4655, 4565, 4465, 4456

31. Explanation: (2)
$N = \sqrt{16} \times (4)^2 = 64$

32. Explanation: (1)
$1\ \text{GB} = 1024\ \text{MB}$

33. Explanation: (3)
B is father of A
A is father of C
Hence, B is the grandparent of C

34. Explanation: (3)
$96 = \text{XCVI}$

35. Explanation: (2)
World Tuberculosis Day is observed annually on March 24, it aims to raise public awareness about the global tuberculosis epidemic and the efforts to eradicate it.

36. Explanation: (2)
CCITRKE = CRICKET
Thus, the fifth letter is K

37. Explanation: (1)
Two angles are considered supplementary, when their measures add up to 180 degrees.

38. Explanation: (3)
Mahatma Gandhi gave the famous call "Do or Die", signifying to either achieve India's freedom or sacrifice their lives in the effort.

39. Explanation: (3)
The only daughter of the father of Rajiv's sister's brother is his sister

40. Explanation: (3)
Cost price of 144 oranges is
$x = 360$ Rs
Selling price is
$y = 360 + \left(\frac{10}{100} \times 360\right) = 396$ Rs
Rate per dozen is
$R = \frac{396}{12} = 33$ Rs

41. Explanation: (1)
By arranging the given words in alphabetical order:
Simple, Singer, Single, Sinister

42. Explanation: (3)
Number of students who can speak both languages are
$N = 28 + 30 - 40 = 18$
Number of students who can speak only Telugu is
$M = 30 - 18 = 12$

43. Explanation: (2)
Number of students who can speak only Tamil is
$K = 28 - 18 = 10$

44. Explanation: (3)
Number of students who can speak both languages are
$N = 28 + 30 - 40 = 18$

45. Explanation: (3)
The function of the lens in human eyes is to focus light onto the retina by adjusting its shape.
C. Change the focal distance of the eye - This is correct. The lens changes its curvature to adjust the focal distance, allowing us to focus on objects at varying distances

46. Explanation: (2)
Mars has two moons, Phobos and Deimos.

47. Explanation: (1)
Prime Minister serves as the executive head of the nation, the chief of government, the principal adviser to the President, the head of the Council of Ministers, and the leader of the majority party in Parliament.

48. Explanation: (3)
Product of two numbers is
$P = HCF \times LCM$
$33828 = 26 \times LCM$
$LCM = \frac{33828}{26} = 1378$

49. Explanation: (1)
Nicosia is the largest city of Cyprus, which is situated near the center of the Mesaoria Plain along the banks of the River Pedieos. It serves as the capital and administrative center of Cyprus.

50. Explanation: (1)
Father → Mother
Mother → Brother
Brother → Sister
Siter → Father

51. Explanation: (4)
Average of marks in five subjects is
$A = \frac{S_1 + S_2 + S_3 + S_4 + S_5}{5}$
$80 = \frac{67 + 69 + 78 + 88 + S_5}{5}$
$S_5 = 98$

52. Explanation: (2)
Scottish scientist Sir Alexander Fleming discovered penicillin in 1928.

53. Explanation: (4)
Aruna Asaf Ali is remembered for hoisting the Indian National Congress flag during the Quit India Movement.

54. Explanation: (1)
In 2014, the 16th Lok Sabha was constituted with the NDA coalition coming to power, and Narendra Modi was sworn in as the Prime Minister.

55. Explanation: (3)
Nicknamed "The Real Deal", Evander Holyfield is the only boxer to have won the world heavyweight championship four times.

56. Explanation: (2)

Step 1: Checking if 2012 is a leap year

Yes, 2012 is a leap year

Step 2: Counting the number of days between 25 Dec 2011 and 25 Dec 2012

Since, 2012 is a leap year, so it has 366 days

A normal year shifts the day by $+1$

A leap year shifts the day by $+2$

Step 3: Applying the shift

Sunday $+$ 2 days → Tuesday

57. Explanation: (2)

Given:

Five girls are sitting in front, facing you.

Ruhi and Manali are sitting to the right and left of Urja respectively.

So, Manali – Urja – Ruhi.

Dhwani is sitting between Manali and Tanya.

So, one possible order becomes:

Tanya – Dhwani – Manali – Urja – Ruhi

From the order above:

Dhwani – Manali – Urja – Ruhi

→ There are 2 girls (Manali and Urja) between them.

Answer: 2

58. Explanation: (3)

The right order is

Tanya – Dhwani – Manali – Urja – Ruhi

Hence, Manali is sitting in the middle

59. Explanation: (3)

Dhwani is sitting to the right of Tanya

60. Explanation: (1)

The Anarchical and Revolutionary Crimes Act of 1919, commonly known as the Rowlatt Act or Black Act, was enacted by the Imperial Legislative Council in Delhi on 10 March 1919.

61. Explanation: (1)

Just like Blunt is the opposite of Sharp, Sow is the opposite of Reap.

62. Explanation: (1)

Tsunamis are triggered by undersea earthquakes. When an oceanic plate drags and bends a continental plate downward, the stress eventually causes the continental plate to snap back. This sudden movement displaces seawater upward, sending powerful waves that spread in all directions and may reach the shore hours later.

63. Explanation: (3)

36 is a square and others are cubes

64. Explanation: (1)

Given:

$$\mathrm{P} = 37500\ \mathrm{Rs}, \mathrm{R} = 8\%, \mathrm{T} = \frac{3}{2}\ \text{years}$$

Amount is

$$\mathrm{A} = \mathrm{P}\left(1 + \frac{\mathrm{R}}{100}\right)^{\mathrm{T}}$$

Compounded amount for half year is

$$\mathrm{A} = 37000\left(1 + \frac{4}{100}\right)^{3} = 37000 \times \left(\frac{52}{50}\right)^{3}$$
$$= 42182.40\ \mathrm{Rs}$$

65. Explanation: (2)

The prime numbers between 50 and 100 are 53, 59, 61, 67, 71, 73, 79, 83, 89, and 97.

Hence, there are a total of 10 prime numbers in this range.

66. Explanation: (1)

$1\ \mathrm{hr} = 3600\ \mathrm{sec}$

$1\ \mathrm{min} = 60\ \mathrm{sec}$

$1\ \mathrm{min}\ 12\ sec = 60 + 12 = 72\ sec$

Percent of 1 minute and 12 seconds to 1 hour is

$$= \frac{72}{3600} \times 100 = 2\%$$

67. Explanation: (2)

The keyboard is the odd one out because, unlike the other options, it does not have memory.

68. Explanation: (2)

The time interval after which all the bells will ring together is given by the L.C.M. of 15, 20 and 30.

The L.C.M. of 15, 20, and 30 is 60, means the bells will ring together after every 60 minutes.

Therefore, they will ring together again at 12 noon.

69. Explanation: (2)

Vasco da Gama, a Portuguese explorer was the first European to reach India by sea in 1498. His pioneering voyage established the first oceanic link between Europe and Asia, connecting the Atlantic and Indian Oceans.

70. Explanation: (4)

The possible arrangement according to question is

Priyanka ---- Asha ---- Sunil ---- Ryan ---- Mary

Hence, Priyanka is the first in the line

71. Explanation: (1)

Protozoa are single - celled eukaryotic organisms that exhibit traits typically associated with animals. They are generally classified under the kingdom *Protista*, along with plant-like algae and fungus - like water molds and slime molds.

72. Explanation: (4)

According to question

$$\text{Height of A} = \frac{5}{8} \times \text{Height of B}$$

$$\frac{\text{Height of B}}{\text{Height of A}} = \frac{8}{5}$$

73. Explanation: (3)

Methane is known as marsh gas because it is produced by methanogenic organisms commonly found in marshy areas.

74. Explanation: (2)

Total distance covered by bus to cross 35 poles is

$$D = 34 \times 50 = 1.7 \text{ km}$$

Time taken by bus to cross 35 electric poles is

$$T = 1 \text{ min} = \frac{1}{60} \text{ hr}$$

Speed of bus is

$$S = \frac{D}{T} = \frac{1.7}{\frac{1}{60}} = 102 \text{ km/hr}$$

75. Explanation: (2)

Canada is written as

C = 5, A = 1, N = 8, A = 1, D = 9, and A = 1

76. Explanation: (3)

Fraction of children in age group of 1 to 12 years is $\frac{2}{3}$

Fraction of children in age group of 1 to 8 years is $\frac{3}{4}$

Fraction of children in age group of 9 to 12 years is

$$F = \frac{2}{3} \times \frac{3}{4} = \frac{1}{2}$$

77. Explanation: (2)

The Dambulla Cave Temple is known as the Golden Temple of Dambulla, which is a UNESCO World Heritage Site located in central Sri Lanka.

78. Explanation: (4)

$$C = 3, O = 15, W = 23$$

$$COW = 3 + 15 + 23 = 41$$

Similarly

D = 4, O = 15, and G = 7

$$DOG = 4 + 15 + 7 = 26$$

Logic:

By arranging all 26 English alphabets with numerals i.e.

$$A = 1, B = 2, C = 3 \ldots\ldots \text{upto Z}$$

79. Explanation: (2)

Total earning of 10 employees is

$$P = 36200 \times 10 = 362000$$

Total earning of 15 employees is

$$Q = 33550 \times 15 = 503250$$

Total number of employees is

$$N = 10 + 15 = 25$$

Average salary of each employee is

$$X = \frac{P + Q}{N} = \frac{362000 + 503250}{25} = 34610$$

80. Explanation: (2)

Let the son's and Ram's present ages be S and R years respectively

Given:

$$R = 4S \ldots\ldots \text{eq1}$$

After five years, there ages will be

$$R + 5 = 3(S + 5) \ldots\ldots \text{eq2}$$

From eq1 and eq2

$$S = 10 \text{ years}$$

$$R = 4S = 4 \times 10 = 40 \text{ years}$$

81. Explanation: (2)

Given:

- Principal = 275000 Rs
- Rate = 8% pa
- Time = 3 years

Simple Interest is

$$I = \frac{PRT}{100}$$

$$I = \frac{275000 \times 8 \times 3}{100} = 66000 \text{ Rs}$$

Total amount to be paid after 3 years is

$$A = P + I = 275000 + 66000 = 341000 \text{ Rs}$$

At settlement, she gave her old scooter plus 335000 Rs to the bank

So, price of scooter is

$$P = \text{Total due} - \text{Amount paid in cash}$$

$$P = 341000 - 335000 = 6000 \text{ Rs}$$

82. Explanation: (1)

Let the speed of first scooter be x and second scooter be $(x + 10)$ km/hr.

Let the distance travelled by first scooter be y km and second scooter be

$(300 - y - 25)$ km respectively

GRADUATE

2025

Exam Paper – 05 June 2025 (Shift-I)

Railway Recruitment Board

(Non-Technical Popular Categories)

QUESTIONS WITH EXPLANATION

1. In which year did Bakshi Jagabandhu lead the Paika Rebellion to protest against the British land revenue policy?

(1) 1785 (2) 1717

(3) 1806 (4) 1817

2. What was the overall unemployment rate in India as reported in the 6^{th} Annual Employment-Unemployment Survey conducted by the Labour Bureau?

(1) 5.4% (2) 6.1%

(3) 4.9% (4) 7.3%

3. If '$+$' means '$-$', '$-$' means '$\times$', '$\times$' means '$\div$' and '$\div$' means '$+$', then what will come in place of the question mark (?) in the following equation?

$32 \div 14 + 16 - 8 \times 4 = ?$

(1) 14 (2) 18

(3) 16 (4) 22

4. Who among the following assumed charge of the Comptroller General of India in November 2024?

(1) K Sanjay Murthy (2) Tuhin Kant Pandey

(3) Manish Singhal (4) Arunish Chawla

5. Which of the following is an example of an operating system commonly used on desktop computers?

(1) Microsoft Word (2) Adobe Photoshop

(3) Windows 10 (4) Google Chrome

6. Refer to the following number and symbol series and answer the question that follows.

Counting to be done from left to right only. All numbers are single-digit numbers.

(Left) # * £ 3 9 € # % £ 1 % £ 8 8 1 4 9 % 5 8 & 7 (Right)

How many such numbers are there each of which is immediately preceded by a symbol and also immediately followed by a symbol?

(1) 2 (2) 3

(3) 1 (4) 4

7. The 24° latitude passes closest to which Indian state's capital?

(1) Patna (2) Bhopal

(3) Raipur (4) Dispur

8. Which urban local self government body manages small towns with limited municipal functions like street lighting and drainage?

(1) Municipal Corporation

(2) Port Trust

(3) Town Area Committee

(4) Special Purpose Agencies

9. Find the value of K if the quadratic equations $2x^2 + Kx + 8 = 0$ and $3x^2 + 4x + 12 = 0$ have both roots common.

(1) $\frac{8}{3}$ (2) $\frac{3}{2}$

(3) $\frac{5}{3}$ (4) $\frac{7}{2}$

10. What will come in the place of the question mark (?) in the following equation, if '+' and '-' are interchanged and '$\times$' and '$\div$' are interchanged?

$38 \div 21 + 436 \times 4 - 73 = ?$

(1) 761 (2) 762

(3) 764 (4) 763

11. Seven boxes, A, B, C, D, E, F and G, are kept one over the other but not necessarily in the same order. No box is kept above F. Only three boxes are kept between F and B. Only one box is kept between G and D. D is kept immediately above B. Only four boxes are kept between G and C. A is kept in some place above E. How many boxes are kept below D?

(1) 1 (2) 4

(3) 3 (4) 2

12. In the Gender Inequality Index (GII) 2022, what rank did India achieve among 193 countries?
(1) 108 (2)115
(3)100 (4) 122

13. Which structural-functional issue in a plant root would hinder gas exchange but not significantly impact water absorption?
(1) Endodermal cells without suberin
(2) Disrupted stomatal apparatus on aerial organs
(3) Absence of root hairs due to epidermal deformation
(4) Mutated epiblema cells lacking vacuoles

14. Which of the following is an example of a chemical change?
(1) Burning wood (2) Cutting paper
(3) Boiling water (4) Melting ice

15. When navigating through options in a dialog box or menu using the keyboard, what is the primary function of the Tab key?
(1) To go back to the previous option or control
(2) To close the current dialog box or menu
(3) To move the focus to the next available option or control
(4) To select the currently highlighted option

16. The larger of two supplementary angles is 28° more than the smaller one. The smaller angle (in degree) is:
(1) 76° (2) 79°
(3) 80° (4) 84°

17. What is the main focus of the Sangam anthologies, Purananuru and Patirruppattu, from the Ettuttokai collection?
(1) Heroism and praises of kings and their deeds
(2) Love and emotional experiences
(3) Descriptions of nature and landscapes
(4) Spiritual and religious themes

18. In South Indian temple architecture, what is the name of the stepped or pyramidal structure built above the sanctum?
(1) Jagati (2) Mandapa
(3) Vimana (4) Adhisthana

19. The term 'Bhukti' in post-Gupta polity referred to:
(1) tax (2) officer
(3) King (4) Province

20. From which state to which state do the Eastern Coastal Plains of India extend?
(1) Gujarat to Kerala
(2) West Bengal to Tamil Nadu
(3) Maharashtra to Andhra Pradesh
(4) Odisha to Karnataka

21. Simplify: $\frac{\sqrt[3]{5832}}{\sqrt[4]{10000}} \times \frac{5}{24} \times 78$
(1) 21 (2) 13
(3) 8 (4) 17

22. Sundar starts from point A and drives 12 km towards the east. He then takes a left turn, drives 9 km, turns left and drives 13 km. He then takes a left turn and drives 11 km. He takes a final left turn, drives 1 km and stops at point P. How far (shortest distance) and towards which direction should he drive in order to reach point A again? (All turns are 90 degree turns only unless specified.)
(1) 2 km to the south (2) 1 km to the north
(3) 2 km to the north (4) 1 km to the south

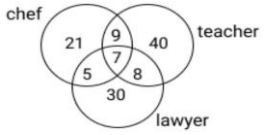
23. Salil's salary was first reduced by 15% and subsequently raised by 10%. What percentage was his final salary lower compared to his initial salary?
(1) 10% (2) 5%
(3) 6.5% (4) 15%

24. If 260 is the mean proportion between x and 338, what is the value of x?
(1) 200 (2) 198
(3) 199 (4) 201

25. Which of the following components is/are NOT a part of the Central Processing Unit (CPU)?
(1) Arithmetic Logic Unit (ALU) (2) Graphic Card
(3) Control Unit (CU) (4) Registers

26. A class of 30 students appeared in a test. The average score of 12 students is 60, and that of the rest is 62. What is the average score of the class?
(1) 61.2 (2) 62 .2
(3) 60 .2 (4) 59.2

27. Study the given Venn diagram carefully and answer the question that follows.



The numbers in different sections indicate the number of persons. How many chefs are there who are also teachers but not lawyers?

(1) 8 (2) 9
(3) 5 (4) 7

28. The average of first 14 whole numbers is:

(1) 6.5 (2) 7.5
(3) 7 (4) 5.5

29. Which of the following letter-clusters should replace # and % so that the pattern and relationship followed between the letter-cluster pair on the left side of :: is the same as that on the right side of ::?

: VEC :: BNW : %

(1) # = XHA, % = ZKY (2) # = ZKY, % = FTS
(3) # = FTS, % = XHA (4) # = DQU, % = XHA

30. Which of the following Indian states does NOT have a coastline?

(1) Gujarat (2) Rajasthan
(3) Andhra Pradesh (4) Odisha

31. Find the surface area of a sphere whose diameter is equal to 98 cm.

(1) 29,256 cm^2 (2) 39,204 cm^2
(3) 30,184 cm^2 (4) 33,284 cm^2

32. Rahul's age is three times the age of his daughter. After 8 years from now, his age will be 5 years more than twice the age of his daughter. Find the present age of Rahul.

(1) 36 years (2) 30 years
(3) 33 years (4) 39 years

33. In a row of 73 students facing north, Gita is 16^{th} from the left end. If Sunita is 21^{st} to the right of Gita, what is Sunita's position from the right end of the line?

(1) 31^{st} (2) 28^{th}
(3) 22^{nd} (4) 37^{th}

34. In February 2025, Muthoot Finance has received RBI approval to open how many new branches across India, strengthening its presence in the gold loan market?

(1) 115 (2) 110
(3) 120 (4) 125

35. What is the primary objective of the Chandra's Surface Thermophysical Experiment (ChaSTE), 2025, payload?

(1) To measure the vertical temperature profile of the lunar regolith
(2) To study the Moon's magnetic field
(3) To measure the Moon's atmospheric pressure
(4) To assess the Moon's geological composition

36. How many cities were initially included under the Smart Cities Mission launched by the Government of India?

(1) 50 (2) 100
(3) 200 (4) 150

37. Varun and Ashish together can paint a hall in 3 days. Varun alone can paint it in 7 days. In how many days can Ashish alone paint 4 such halls?

(1) 5.25 (2) 6.25
(3) 22 (4) 21

38. If Ishwar covers 721 km in a boat in 42 hours against the stream and he takes 15 hours with the stream, then find the speed of the stream.

(1) 7.38 km/hr (2) 19.25 km/hr
(3) 22.48 km/hr (4) 15.45 km/hr

39. Who won the Women's Premiere League WPL 2025 title?

(1) Chennai Super Kings
(2) Mumbai Indians
(3) Royal Challengers Bangalore
(4) Delhi Capitals

40. The Takht-i-Bahi inscription refers to which Parthian ruler?

(1) Gondophernes (2) Menander
(3) Azes (4) Rudradaman

41. Which Article of the Directive Principles of State Policy was added by the 97 th Constitutional Amendment Act of the Constitution of India?

(1) Article 39 A (2) Article 43 B
(3) Article 48 A (4) Article 43 A

42. Based on the English alphabetical order, three of the following four letter-cluster pairs are alike in a certain way and thus form a group. Which letter-cluster pair DOES NOT belong to that group? (Note: The odd one out is not based on the number of consonants/vowels or their position in the letter cluster)

(1) HL – JN (2) MU – KH
(3) NR-PT (4) SW – UY

43. Who among the following founded the Vedanta College in Calcutta to promote both Indian and Western learning?
(1) Rammohan Roy
(2) Debendranath Tagore
(3) Swami Vivekananda
(4) Ishwar Chandra Vidyasagar

44. Which of the following letter-clusters should replace # and % so that the pattern and relationship followed between the letter-cluster pair on the left side of :: is the same as that on the right side of ::?
: JLH :: IKG : %
(1) # = FJH, % = MHU (2) # = DEG, % = NIU
(3) # = EGC, % = NPL (4) # = FDG, % = MLG

45. Which of the following combinations represents the party and constituency of the Chief Minister of Jharkhand after the 2024 Assembly elections?
(1) JMM, Barhait (2) JMM, Khunti
(3) BJP, Jamshedpur East (4) BJP, Dhanwar

46. Kiran spends 45% of his income. If he saves ₹ 66,000, then his income (in ₹) is:
(1) 1,21,000 (2) 1, 19, 000
(3) 29,700 (4) 1,20,000

47. In November 2024, which day was celebrated to honour India's contribution to the dairy revolution?
(1) National Dairy Day (2) White Revolution Day
(3) National Milk Day (4) Milk Production Day

48. A dealer sells two dryers at the rate of ₹63,000 per dryer. On one, he earns a profit of 5% and on the other he loses 30%. What is his loss percentage in the whole transaction?
(1) 14% (2) 17%
(3) 15% (4) 16%

49. The difference between the simple interest and the compound interest, compounded annually, on a certain sum of money for 2 years at 16% per annum is ₹797. Find the sum (rounded off to the nearest integer).
(1) ₹ 31,113 (2) ₹31,130
(3) ₹ 31,137 (4) ₹31,133

50. If 2 is added to each even digit and 2 is added to each odd digit in the number 5217643, what will be the sum of the first digit from the left and the first digit from the right in the new number thus formed?
(1) 10 (2) 11
(3) 12 (4) 13

51. A group of numbers/symbols is coded using letter codes as per the codes given below and the conditions that follow. If none of the conditions apply, then codes for the respective number/symbol to be followed directly as given in the table.

Number /Symbol	9	2	@	&	3	7	5	%	1	8	Δ	4	6
Code	L	C	Z	M	D	W	A	P	R	T	F	B	K

Conditions:
(i) If the first element is a symbol and the last a number, the codes for these two (the first and the last elements) are to be interchanged.
(ii) If the first element is an odd number and the last an even number, the first and last elements are to be coded as ©.
(iii) If both the second and third elements are perfect squares, the third element is to be coded as the code for the second element.

What will be the code for the following group?
5 & 3 @ 7 % 2
(1) © MDZWP © (2) © MDZPW ©
(3) © D M Z W P © (4) © M D W Z P ©

52. The Indian telecom sector was liberalised under which year's Telecom Policy?
(1) 1997 (2) 1999
(3) 1994 (4) 2002

53. What is the value of $\frac{3}{8}+\frac{1}{8}+\frac{5}{16}+\frac{2}{8}-2$?
(1) $-\frac{23}{16}$ (2) $-\frac{13}{16}$
(3) $-\frac{15}{16}$ (4) $-\frac{21}{16}$

54. When x is added to each of $30, 15, 21$ and 11, then the numbers so obtained, in this order, are in proportion. Then, if $6x : y :: y : (3x-9)$, and $y > 0$, what is the value of y?
(1)18 (2) 24
(3) 10 (4) 37

55. In quadrilateral $ABCD, AB = 17$ cm, $BC = 8$ cm, $CD = 9$ cm, $AD = 12$ cm, and $= 15$ cm. What is the area (in cm^2) of the quadrilateral?
(1) 105 (2) 114
(3) 118 (4) 121

56. Find the duration (in years) in which ₹ 1,200 will amount to ₹ 2,280 at a rate of 4% per annum simple interest.
(1) 22.5 (2) 21.5
(3) 23 .5 (4) 24.5

57. The Sabarmati river originates from which of the following places?
(1) Aravalli Hills, Rajasthan
(2) Western Ghats, Maharashtra
(3) Satpura Range, Gujarat
(4) Vindhya Range, Madhya Pradesh

58. Which of the following statements is/are correct about the Digital Agriculture Mission launched in 2024?
1. It includes the creation of Digital Public Infrastructure such as AgriStack and Comprehensive Soil Fertility Maps.
2. AgriStack is managed solely by the Central Government.
3. The mission seeks to facilitate digital services like credit and insurance to farmers through authenticated data.

Option:
(1) Only 2 and 3 (2) 1, 2 and 3
(3) Only 1 and 2 (4) Only 1 and 3

59. What should come in place of the question mark (?) in the given series?
701 700 697 692 685 ?
(1) 675 (2) 673
(3) 671 (4) 676

60. What is the primary purpose of virtual memory in a computer system?
(1) To provide backup for data
(2) To increase physical storage capacity
(3) To extend CACHE memory for storage
(4) To extend RAM capacity by using disk space

61. A vendor bought lemons at 7 for ₹1. How many lemons must he sell for ₹1 to gain 75%?
(1) 8 (2) 4
(3) 5 (4) 6

62. Which of the following solutions is slightly acidic due to hydrolysis?
(1) NH_4CH_3COO (2) NH_4Cl
(3) Na_2CO_3 (4) CH_3COONa

63. Which of the following letter-number clusters will replace the question mark (?) in the given series to make it logically complete?
OKI 4, QLG 8, SME 12, UNC 16, ?
(1) WOA 24 (2) WOA 20
(3) WOV 20 (4) vow 16

64. The larger of two supplementary angles is 50° more than the smaller one. The smaller angle (in degree) is:
(1) 65° (2) 67°
(3) 56° (4) 75°

65. Which of the following letter-clusters should replace # and % so that the pattern and relationship followed between the letter-cluster pair on the left side of :: is the same as that on the right side of ::?
: LHM :: OKP : %
(1) $\# = FDH, \% = NHU$ (2) # = UPS, % = RPV
(3) # = DCV, % = NHY (4) # = GCH, % = TPU

66. If 7.5 : 19.5:: 16: x, find the value of x.
(1) 39.4 (2) 41.1
(3) 41 .6 (4) 45.1

67. According to the Economic Survey 2024-25, what is the current expenditure on Research and Development (R&D) as a percentage of India's GDP?
(1) 0.45% (2) 1.15%
(3) 0.64% (4) 1.28%

68. Seven people, N, O, P, Q, R, S and T, are sitting in a straight line facing north. T is sitting at one of the ends of the line. Only two people are sitting to the left of R. P is sitting to the immediate right of R and immediate left of S. Q is sitting to the immediate left of O. Q does not sit at an extreme end of the line. How many people are sitting between O and ?
(1) Two (2) Zero
(3) Four (4) One

69. What will come in place of the question mark (?) in the following equation if ' + ' and ' - ' are interchanged and ' × ' and ' ÷ ' are interchanged?
$1125 \times 45 \div 39 - 17 + 19 = ?$
(1) 992 (2) 973
(3) 379 (4) 975

70. This question is based on the five, three-digit numbers given below.
(Left) 614 457 249 625 150 (Right)

(1) To apply consistent formatting, fonts, and layouts to all slides
(2) To export slides as images
(3) To delete multiple slides at once
(4) To insert animations and transitions

94. The median of the observations 76, 83, 30, 11, 81, 52, 18, 34, 84, 35 and 27 is:
(1) 30 (2) 35
(3) 52 (4) 34

95. The mode and median of a data set is 28.4 and 88, respectively. What is the mean of the data set? (Use empirical formula.)
(1) 114.2 (2) 119 .2
(3) 117 .8 (4) 127.7

96. The marked price of a bed is ₹517, which is 30% above the cost price. If the profit percent is 2%. Find the discount percentage. (rounded off to two decimal places)
(1) 18.57% (2) 24.06%
(3) 20.36% (4) 21.54%

97. 67 is related to 74 following a certain logic. Following the same logic, 13 is related to 20.
To which of the following is 52 related, following the same logic?
(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into their constituent digits. E.g. 13 - Operations on 13 such as adding/subtracting/multiplying to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)
(1) 63 (2) 57
(3) 59 (4) 61

98. A group of numbers/symbols is coded using letter codes as per the codes given below and the conditions that follow. If none of the conditions apply, then codes for the respective number/symbol to be followed directly as given in the table.

Number /Symbol	8	9	@	&	5	7	2	%	1	3	Δ	4	6
Code	L	C	Z	M	D	W	A	P	R	T	F	B	K

Conditions:
(i) If the first element is a symbol and the last a number, the codes for these two (the first and the last elements) are to be interchanged.
(ii) If the first element is an odd number and the last an even number, the first and last elements are to be coded as ©
(iii) If both the second and third elements are perfect squares, the third element is to be coded as the code for the second element.

What will be the code for the following group?
7 2 @ 1 3 &
(1) WAZRTM (2) WARZTM
(3) MAZTRW (4) MAZRTW

99. Who among the following was known for promoting inter-caste and inter-religious marriages through legislation?
(1) Annie Besant (2) Pandita Ramabai
(3) Raja Ram Mohan Roy (4) Sir Syed Ahmed Khan

100. Based on the English alphabetical order, three of the following four letter-clusters are alike in a certain way and thus form a group. Which letter-cluster DOES NOT belong to that group?
(Note: The odd one out is not based on the number of consonants/vowels or their position in the letter-cluster.)
(1) POR (2) SQU
(3) LJN (4) ECG

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

EXPLANATION

1. Explanation: (4)
Bakshi Jagabandhu led the Paika Rebellion in 1817 against the British land revenue policies in Odisha.

2. Explanation: (1)
The 6th Annual Employment–Unemployment Survey (2016-17) reported India's overall unemployment rate as 5.4%.

3. Explanation: (1)
$32 \div 14 + 16 - 8 \times 4$
$= 32 + 14 - 16 \times 8 \div 4$
$= (32 + 14) - (16 \times 8 \div 4)$
$= 46 - 32$
$= 14$

4. Explanation: (1)
K Sanjay Murthy was assumed charge of the Comptroller General of India in November 2024.

5. Explanation: (3)
Windows 10 is an operating system. The others are applications that run on an operating system.

6. Explanation: (3)
Only the digit 1 (the one between £ and %) is immediately preceded and followed by symbols.

7. Explanation: (2)
Bhopal, the capital of Madhya Pradesh, is the closest to the 24° latitude line.

8. Explanation: (3)
A Town Area Committee is established to oversee small towns with limited municipal functions like street lighting and drainage.

9. Explanation: (1)
For two quadratic equations to have both roots common, their coefficients must be in the same ratio:
$2x^2 + Kx + 8 = 0$
$3x^2 + 4x + 12 = 0$
So:
$\frac{2}{3} = \frac{K}{4} = \frac{8}{12}$
$\therefore \frac{2}{3} = \frac{K}{4}$
$\therefore K = \frac{4 \times 2}{3} = \frac{8}{3}$

10. Explanation: (2)
$38 \div 21 + 436 \times 4 - 73$
$= 38 \times 21 - 436 \div 4 + 73$
$= (38 \times 21) - (436 \div 4) + 73$
$= 798 - 109 + 73$
$= 762$

11. Explanation: (3)
No box above F ⇒ F at 1. Three boxes between F and B ⇒ B at 5. D immediately above B ⇒ D at 4. One box between G and D ⇒ G at 2 or 6; only four boxes between G and C forces G at 2 and C at 7. Remaining A and E must occupy 3 and 6 with A above E, so A at 3 and E at 6. Stack: F, G, A, D, B, E, C. Boxes below D are B, E, C.

12. Explanation: (1)
In the Gender Inequality Index (GII) 2022, India was ranked 108th out of 193 countries.

13. Explanation: (2)
Stomata are responsible for **gas exchange**, mainly on leaves and stems, not roots.
If the stomatal apparatus is disrupted, **gas exchange is affected**, but **water absorption by roots remains mostly unaffected**, since roots absorb water through root hairs and epidermal cells, not stomata.
The other options would directly impair water absorption, so they are incorrect.

14. Explanation: (1)
Burning wood produces new substances (ash, smoke, gases), so it is a chemical change. Cutting, boiling, and melting are all physical changes.

15. Explanation: (3)
The Tab key shifts the cursor/focus forward through buttons, fields, and other controls in a dialog box.

16. Explanation: (1)
Let the smaller angle be x°.
The larger angle = x + 28°.
Since they are supplementary:
x + (x + 28) = 180
2x + 28 = 180
2x = 152
x = 76°

17. Explanation: (1)
Purananuru and Patirruppattu belong to the puram category of Sangam literature, which focuses on

warfare, kingship, heroism, generosity, and public life, not love or nature.

18. Explanation: (3)
In South Indian (Dravidian) temple architecture, the vimana is the stepped or pyramidal tower built directly above the garbhagriha (sanctum).

19. Explanation: (4)
In post-Gupta administration, a Bhukti referred to a province, which was further divided into *vishayas* (districts).

20. Explanation: (2)
The Eastern Coastal Plains stretch from **the Gangetic delta in West Bengal down to Kanyakumari in Tamil Nadu**, covering Odisha and Andhra Pradesh in between.

21. Explanation: (*)

$$\frac{\sqrt[3]{5832}}{\sqrt[4]{10000}} \times \frac{5}{24} \times 78 = \frac{18}{10} \times \frac{5}{24} \times 78 = 29.25$$

22. Explanation: (3)
Start at A = (0,0).
Drive 12 km east → (12,0).
Left turn (north) 9 km → (12,9).
Left turn (west) 13 km → (12−13, 9) = (−1,9).
Left turn (south) 11 km → (−1, 9−11) = (−1,−2).
Left turn (east) 1 km → (−1+1, −2) = (0, −2) which is point P.
Vector from P to A = A − P = (0,0) − (0,−2) = (0,2).
Distance = $\sqrt{0^2 + 2^2}$ = 2 km.
And from P(0,-2) to reach at A(0,0), he should drive in north direction.

23. Explanation: (3)
Take Salil's initial salary as 100.
After a 15% reduction:
100 → 85.
After a 10% increase on 85:
85 → 85 × 1.10 = 93.5.
Difference from the original:
100 − 93.5 = 6.5.
His final salary is 6.5% lower than the initial.

24. Explanation: (1)
Mean proportion means geometric mean.
So, $260^2 = x \times 338$
$\therefore x = \frac{260 \times 260}{338} = 200$

25. Explanation: (2)
The only component that is NOT part of the CPU is the Graphic Card.
ALU, CU, and Registers are all internal components of a CPU.

26. Explanation: (1)
Total of first 12 students = 12 × 60 = 720.
Total of remaining 18 students = 18 × 62 = 1116.
Total score = 720 + 1116 = 1836.
Average of class = $\frac{1836}{30}$ = 61.2.
Correct answer: 61.2.

27. Explanation: (2)
There are 9 chefs who are also teachers but not lawyers.

28. Explanation: (1)
Average $= \frac{0+1+2+\cdots+13}{14} = \frac{\frac{13\times14}{2}}{14} = 6.5$

29. Explanation: (1)
Option (1) is correct
i.e, XHA : VEC :: BNW : ZKY
X (-2) → V, H (-3) → E, A (+2) → C
B (-2) → Z, N (-3) → K, W (+2) → Y

30. Explanation: (2)
The state that does NOT have a coastline is Rajasthan.

31. Explanation: (3)
Diameter = 98 cm
Therefore, radius = $\frac{98}{2}$ = 49 cm.
Surface area of a sphere = $4\pi r^2$
= $4 \times \pi \times 49^2$
= $4 \times \pi \times 2401$
= 9604π
Using $\pi \approx 3.14$:
9604 × 3.14 = 30,184.56 ≈ **30,184 cm²**

32. Explanation: (4)
Let daughter's present age = D
Rahul's present age = 3D
Given:
After 8 years,
Rahul's age = 5 more than twice daughter's age:
3D + 8 = 2(D + 8) + 5
3D + 8 = 2D + 21
D = 13
Rahul's present age = 3D = 39 years.

33. Explanation: (4)
Gita is 16th from the left.
Sunita is 21 places to the right of Gita:
Sunita's position from the left = 16 + 21 = 37th
Total students = 73.
So, Sunita's position from the right = 73 − 37 + 1
= 36 + 1
= 37th

34. Explanation: (1)
In February 2025, Muthoot Finance received RBI approval to open 115 new branches.

35. Explanation: (1)
ChaSTE (Chandra's Surface Thermophysical Experiment) measures the vertical temperature gradient and thermal conductivity in the top ~100 mm of lunar soil.
So, option (1) is correct.

36. Explanation: (2)
The Smart Cities Mission initially included 100 cities.

37. Explanation: (4)
Varun's work rate = $\frac{1}{7}$
Together = $\frac{1}{3}$
So Ashish's work rate $= \frac{1}{3} - \frac{1}{7} = \frac{4}{21}$
Time for Ashish to paint 1 hall = $\frac{21}{4}$ days
Time for 4 halls = $4 \times \frac{21}{4}$ = 21 days.

38. Explanation: (4)
Upstream speed = $\frac{721}{42}$ = 17.16 km/hr
Downstream speed = $\frac{721}{15}$ = 48.06 km/hr
Speed of stream
$= \frac{\text{Downstream} - \text{Upstream}}{2}$
$= \frac{48.06 - 17.16}{2} = 15.45$ km/hr.

39. Explanation: (2)
The winner of the Women's Premier League (WPL) 2025 was the Mumbai Indians.

40. Explanation: (1)
The **Takht-i-Bahi inscription** refers to the Parthian ruler **Gondophernes**.

41. Explanation: (2)
The 97th Constitutional Amendment added **Article 43B** to the Directive Principles of State Policy.

42. Explanation: (2)
Except MU – KH, in the other three pairs, each letter of the second cluster is two places ahead of the corresponding letter of the first cluster (H→J, L→N; N→P, R→T; S→U, W→Y). In MU→KH those shifts are not +2, so it doesn't follow the pattern.

43. Explanation: (1)
Rammohan Roy founded the *Vedanta College* in Calcutta in 1825 to blend traditional Indian learning—especially Vedanta philosophy—with Western sciences and rational thought. His aim was to modernize education and encourage critical thinking, which later influenced major social and educational reforms in Bengal.

44. Explanation: (3)
Each letter in EGC is shifted forward by 5 to get JLH (E→J, G→L, C→H).
Applying the same +5 shift to IKG gives NPL (I→N, K→P, G→L).

45. Explanation: (1)
After the 2024 Jharkhand Assembly elections, the Chief Minister is from the **Jharkhand Mukti Morcha (JMM)**, and the CM represents the **Barhait** constituency. Barhait has long been a stronghold of the JMM leadership, and the party retained its influence there in 2024, allowing it to lead the coalition government once again.

46. Explanation: (4)
Kiran spends 45%, so he saves 55% of income.
So, 55% of income = 66,000
$\therefore \frac{55}{100}$ of income = 66,000
$\therefore$ Income $= \frac{66,000 \times 100}{55} = 1,20,000$

47. Explanation: (3)
The correct answer is National Milk Day.
It is observed every year on 26 November to honour Dr. Verghese Kurien and India's contribution to the dairy revolution.

48. Explanation: (4)
Selling price of each dryer = 63,000
Total SP = 1,26,000.
Let CP_1 be for the 5% profit item:
$CP_1 = \frac{63,000}{1.05}$ = 60,000.
Let CP_2 be for the 30% loss item:
$CP_2 = \frac{63,000}{0.70}$ = 90,000.
Total CP = 60,000 + 90,000 = 1,50,000.

Loss = CP − SP = 1,50,000 − 1,26,000 = 24,000.

Loss% = $\frac{\text{Loss}}{\text{CP}} \times 100 = \left(\frac{24,000}{1,50,000}\right) \times 100 = 16\%$.

49. Explanation: (4)

For 2 years, the difference between CI and SI is:

Difference = $P \times \left(\frac{r}{100}\right)^2$

Here r = 16%

So,

797 = P × $\left(\frac{16}{100}\right)^2$

797 = P × 0.0256

P = $\frac{797}{0.0256}$

P = 31,132.81 ≈ ₹31,133

50. Explanation: (3)

Since 2 is added to every digit, both even and odd:

Number: 5 2 1 7 6 4 3

New number = 7 4 3 9 8 6 5

First digit from left = 7

First digit from right = 5

Sum = 7 + 5 = 12

51. Explanation: (1)

5 & 3 @ 7 % 2

→ A M D Z W P C

But since first element was an odd number and last an even number, by second condition, we will code them as ©.

So, code becomes © M D Z W P ©.

52. Explanation: (3)

The telecom sector in India was liberalised under the 1994 Telecom Policy.

53. Explanation: (3)

$\frac{3}{8}+\frac{1}{8}+\frac{5}{16}+\frac{2}{8}-2=\frac{6+2+5+4-32}{16}=\frac{-15}{16}$

54. Explanation: (1)

First condition: the numbers 30+x, 15+x, 21+x, 11+x are in proportion, so

$$\frac{30+x}{15+x}=\frac{21+x}{11+x}$$

$\therefore (30+x)(11+x)=(21+x)(15+x)$

$\therefore 330+41x+x^2=315+36x+x^2$

$\therefore 5x=-15$

$\therefore x=-3$

Now use the second proportion:

$$\frac{6x}{y}=\frac{y}{3x-9}$$

Substitute x = –3:

$\therefore -\frac{18}{y}=\frac{y}{-18}$

$\therefore y^2=18^2$

As $y>0 \Rightarrow y=18$

55. Explanation: (2)

We split quadrilateral ABCD along diagonal AC,

So, area(ABCD) = area(△ABC) + area(△ADC).

For △ABC (sides 17, 8, 15):

Semi-perimeter $s=\frac{17+8+15}{2}=20$

Area by Heron's formula

$=\sqrt{s(s-a)(s-b)(s-c)}$

$=\sqrt{20(20-17)(20-8)(20-15)}$

$=\sqrt{3600}=60$ cm²

For △ADC (sides 12, 9, 15):

Semi-perimeter $s=\frac{12+9+15}{2}=18$

Area by Heron's formula

$=\sqrt{s(s-a)(s-b)(s-c)}$

$=\sqrt{18(18-12)(18-9)(18-15)}$

$=\sqrt{2916}=54$ cm²

Total area = $60+54=114$ cm²

56. Explanation: (1)

Principal = 1200

Amount = 2280

Therefore, Interest = 2280 – 1200 = 1080

Simple interest formula:

SI = $\frac{PRT}{100}$

$\therefore \text{T}=\frac{\text{SI}\times 100}{\text{PR}}=\frac{1080\times 100}{1200\times 4}=22.5$ years

57. Explanation: (1) The Sabarmati River originates from the Aravalli Hills, Rajasthan.

58. Explanation: (4)

1. True. The mission includes building Digital Public Infrastructure like AgriStack and detailed soil-profile maps.
2. False. AgriStack is *not* solely managed by the central government — its core registries are maintained by State Governments / UTs.
3. True. One of the aims is to use authenticated data (like the Farmer ID) for facilitating services such as credit, insurance, procurement, etc.

59. Explanation: (4)

Sequence differences are −1, −3, −5, −7 (odd numbers increasing by 2), so next difference is −9: 685 − 9 = 676.

Answer: 4. 676