Railway NTPC Pre

Read the following instructions carefully before you begin to attempt the questions.

INSTRUCTIONS TO CANDIDATE

(1) This booklet contains **100 Questions** in all comprising the following **Three** parts.

Part-(I)	: General Awareness	**(40 Questions)**
Part-(II)	: Mathematics	**(30 Questions)**
Part-(III)	: General Intelligence and Reasoning	**(30 Questions)**

(2) All the questions are compulsory and carry equal marks.

(3) Before you start to attempt the questions, you must explore this booklet and ensure that it contains all the pages and find that no page is missing or replaced. If you find any flaw in this booklet, you must get it replaced immediately.

(4) **Each question carries negative marking also as 1/3 mark will be deducted for each wrong answer.**

(5) You will be supplied the Answer-sheet separately by the invigilator. You must complete the details of Name, Roll number, Test name/Id and name of the examination on the Answer-Sheet carefully before you actually start attempting the questions. You must also put your signature on the Answer-Sheet at the prescribed place. These instructions must be fully complied with, failing which, your Answer-Sheet will not be evaluated and you will be awarded 'ZERO' mark.

(6) Answer must be shown by completely blackening the corresponding circles on the Answer-Sheet against the relevant question number by **Black/Blue ball pen** only.

(7) A machine will read the coded information in the OMR Answer-Sheet. In case the information is incompletely/ different from the information given in the application form, the candidature of such candidate will be treated as cancelled.

(8) The Answer-Sheet must be handed over to the Invigilator before you leave the Examination Hall.

(9) Failure to comply with any of the above Instructions will make a candidate liable to such action/penalty as may be deemed fit.

(10) Answer the questions as quickly and as carefully as you can. Some questions may be difficult and others easy. Do not spend too much time on any question.

(11) Mobile phones and wireless communication device are completely banned in the examination halls/rooms. Candidates are advised not to keep mobile phones/any other wireless communication devices with them even switching it off, in their own interest. Failing to comply with this provision will be considered as using unfair means in the examination and action will be taken against them including cancellation of their candidature.

(12) No rough work is to be done on the Answer-Sheet.

(13) No candidate can leave the examination hall before completion of the exam.

NAME OF CANDIDATE:... DATE :...................... CENTRE CODE :................. ROLL No	Maximum Marks : 100 Total Questions : 100 Time Allowed : 90 Min.

DO NOT OPEN THIS TEST BOOKLET UNTIL YOU ARE TOLD TO DO SO

OGV-8842I1308-E

26. Which term is used for the reactions in which two compounds react by an exchange of ions to form two new compounds?
(A) Decomposition reaction
(B) Combination reaction
(C) Displacement reaction
(D) Double-Displacement reaction

27. Which of the following indicator remains colourless in acidic as well as neutral solution?
(A) Methyl orange   (B) Bromothymol blue
(C) Phenolphthalein   (D) Both A and C

28. Name the poisonous gas formed by chloroform in the presence of sunlight?
(A) Nitric oxide   (B) Phosgene gas
(C) Nitrogen dioxide   (D) Methane gas

29. ………is used to disrupt computer operation, gather sensitive information or gain access to the private computer systems?
(A) Malware   (B) Viruses
(C) Worms   (D) Trojan Horse

30. Who has been appointed as the new Leader of the House in the Rajya Sabha, succeeding Piyush Goyal?
(A) Jagat Prakash Nadda
(B) Anurag Thakur
(C) Shivraj Singh Chouhan
(D) Nitish Kumar

31. Who has been appointed as the vice chancellor of Universal AI University, India's first AI-dedicated institution?
(A) Jingyi Jessica   (B) Charlotte Deane
(C) Janet Wittes   (D) Simon Mak

32. The HDFC ERGO General Insurance Company has appointed whom as its new MD and CEO?
(A) Keki Mistry   (B) Ritesh Kumar
(C) Anuj Tyagi   (D) Vinod Sanghi

33. The international Union of Railways is an international body of the rail transport industry created on………?
(A) 17 October, 1922   (B) 20 November, 1920
(C) 2 August, 1931   (D) 21 September, 1925

34. Name the 40th communication satellite launched by ISRO recently from French Guiana?
(A) GSAT-11   (B) GSAT- 22
(C) GSAT-31   (D) None of these

35. The first jute mill in India was set up in which state?
(A) Mumbai   (B) Madhya Pradesh
(C) Andhra Pradesh   (D) Kolkata

36. Which is the first and the only state in India where rooftop rain water harvesting structure is compulsory to all the houses across the state?
(A) Madhya Pradesh   (B) New-Delhi
(C) Orissa   (D) Tamil nadu

37. Civil disobedience movement was started by Mahatma Gandhi in which year?
(A) 1930   (B) 1860
(C) 1885   (D) 1914

38. Who was the founder of Tughlaq Dynasty?
(A) Mohammad Bin Tughlaq
(B) Ghiyasuddin Tughlaq
(C) Feroz shah Tughlaq
(D) None of these

39. Who wrote Panchatantra and Hitopdesh?
(A) Kalidas
(B) Vishakadatta
(C) Vishnu Sharma
(D) None of the above

40. In which of the following state octroi tax is applicable in India?
(A) Gujarat   (B) Maharashtra
(C) Punjab   (D) All of the above

Mathematics

41. The mean of 15 numbers is 40. If two numbers 45 and 35 are removed, then what will be the mean of remaining numbers?
(A) 37.5   (B) 40
(C) 42.5   (D) 38

42. Sum of four times a fraction and 6 times its reciprocal is 11. What is the fraction?
(A) 3/4   (B) 4/3
(C) 4/7   (D) 7/4

43. The average of 4 consecutive even numbers is 51. What is the third number?
(A) 46   (B) 52
(C) 54   (D) 56

44. If $a + b + c = 3$ and none of a, b and c is equal to 1, then what is the value of
$$\frac{1}{(1-a)(1-b)} + \frac{1}{(1-b)(1-c)} + \frac{1}{(1-c)(1-a)}?$$
(A) 0   (B) 1
(C) 3   (D) 6

45. A motorboat whose speed in still water is 15 km/hr, goes 30 km downstream and comes back in 4 hrs and 30 minutes. The speed of the stream (in km/hr) is
(A) 10 km/hr   (B) 6 km/hr
(C) 5 km/hr   (D) 4 km/hr

46. If $x + \frac{1}{x} = 5$, then find $x^5 + \frac{1}{x^5} = ?$
(A) 2525   (B) 2527
(C) 2520   (D) 2530

47. Find the value of N for the number 79N614 to be divisible by 2, 3 and 11.
(A) 0   (B) 4
(C) 1   (D) 5

48. If R% (R+25) % × (R + 50) % × Q^3 = 2835 then find the value of Q if R = 75/2?
(A) 24   (B) ±12
(C) 12   (D) 48

49. What is the value of $\frac{4.35\% \ of \ 46 + 33.33\% \ of \ 9}{20\% \ of \ 25} = ?$
(A) 1   (B) 2
(C) 3   (D) 4

Direction (50–53): Read the following data carefully and answer the questions as follow.
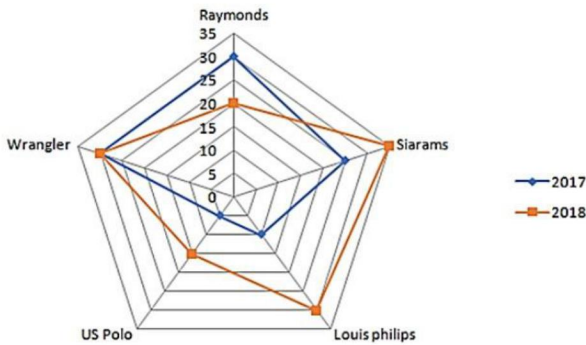
50. Considering the sales data of shirts sold by these textile companies in the year 2017 and 2018, calculate the percentage increase in the total sales in 2018 from its previous year.(consider only these companies exist in market)
(A) 30   (B) 20
(C) 25   (D) 40

51. What is the total average sale of all the shirts in the year 2018?
(A) 65   (B) 26
(C) 75   (D) 25

52. The ratio of total sales of wrangler in these two years to that of the combined sales of siyarams in 2017 and us polo in 2018 is
(A) 3 : 2   (B) 6 : 1
(C) 5 : 1   (D) 2 : 3

53. Find the greatest three digit number that when divided by 12, 16 and 18 leaves a remainder of 5 in every case.
(A) 869   (B) 968
(C) 972   (D) 894

54. Two numbers are in the ratio of 8 : 9 and their LCM 144. Find the sum of these numbers?
(A) 24   (B) 34
(C) 56   (D) 42

55. There are some boys and girls in a class. If every girls mark is decreased by 20 marks then the total average decreases by 5 marks find the number of boys if the number of girls is 100?
(A) 300   (B) 400
(C) 500   (D) 250

56. A man travels with speed of 40 km/hr to his destination but returns back with speed of 60km/hr. find the average speed during his whole journey?
(A) 24 km/hr   (B) 42 km/hr
(C) 48 km/hr   (D) 36 km/hr

57. If the cube sides are increased by 12.5%, then find the increase units of the volume?
(A) 36%   (B) 42.38%
(C) 50%   (D) 25%

58. Two numbers are 35% and 25% less than the third number respectively. The first number is what percentage less than the second number?

(A) 13.33%   (B) 3.33%
(C) 1.33%   (D) 16.66%

59. A container contains milk and water in the ratio in 1: 3. If 30 litres of liquid is taken away and 30 litre of milk is added then the new ratio of milk to water1: 1 then find the initial volume of liquid?
(A) 90 litres   (B) 91 litres
(C) 89 litres   (D) 80 litres

60. If 64.29% of d = 42.86% of c then find the ratio d : c?
(A) 2 : 3   (B) 7 : 8
(C) 8 : 7   (D) 9 : 6

61. A reduction of 14.29 % in the price of sugar enables a home maker to obtain 4 kg more for Rs 120. What is the original price of the sugar?
(A) Rs. 35   (B) Rs. 40
(C) Rs. 30   (D) Rs. 25

62. 3 men or 4 women can do a piece of work in 43 days. In how many days will 7 men and 5 women do this work?
(A) 12 day   (B) 14 day
(C) 24 day   (D) 16 day

63. Mani can build a wall in 4 hours, while his neighbour destroys it in 7 hours the very next day. How much time will Mani take to build the wall if the day he makes wall the next day his neighbour breaks the wall?
(A) 15 days   (B) 91/3 days
(C) 16 days   (D) 191/3 days

64. Venugopal was going to the bus stand, he observed that from the opposite side every 10 minutes a bus crosses him. On reaching bus stand he came to know that buses leave from the bus stand every 12 minutes. If the buses ran at a uniform speed of 40 km/hr then what is the speed at which Venugopal was walking?
(A) 10 kmph   (B) 12 kmph
(C) 8 kmph   (D) 14 kmph

65. A man calculates to go upstream it takes 16 hrs and to return back it takes 12 hrs. What is the ratio of speed of boat to that of the stream?
(A) 7:1   (B) 1:7
(C) 4:3   (D) 3:4

66. Aruna borrowed Rs 90,000 at 10% per annum simple interest. On the same day, she lent the sum to her friend at the same but compounded annually. How much does she gains at the end of 3 years?
(A) Rs. 2907   (B) Rs. 2790
(C) Rs. 2970   (D) Rs. 2800

67. A sum of money for invested for 19 years earns an interest of 19/4 times itself. Then find the rate %.
(A) 25%   (B) 45%
(C) 37.5%   (D) 35%

68. A and B together have 158000. If 37/79th part of A's amount is equal to 126/237th part of B. What is the amount of B?
(A) Rs. 74000   (B) Rs. 37000
(C) Rs. 67500   (D) Rs. 56700

69. Calculate the total surface area (meter) in of a hemisphere of diameter 14cm?

(A) 1848 m^2 (B) 1847 m^2
(C) 0 .0462 m^2 (D) 462 m^2

70. Which of the following option is correct according to the given conditions related correctly?
A= tan30^0
B= $\frac{tan60-tan30}{1+tan60\times tan30}$
(A) A > B   (B) A < B
(C) A − B = 0   (D) A + B = 1

General Intelligence and Reasoning

71. Look at this series
80, 10, 70, 15, 60, ….
What number should come next?
(A) 20   (B) 25
(C) 30   (D) 50

72. In the following question, select the related letters from the given alternatives.
RATS : XGZY : : RIPE : ?
(A) KVMA   (B) XPUL
(C) XOVK   (D) XNVG

73. In a certain language, 'MADRAS' is coded as NBESBT, how is 'BOMBAY' coded in that language?
(A) DPNCBX   (B) CPNCBZ
(C) CPNCBY   (D) DPNCBZ

74. From the given answer figure select the one which in which the question figure is hidden/embeddedd.
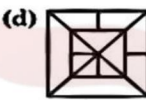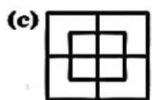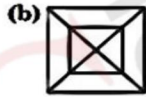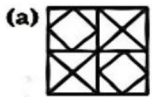
(A) A   (B) B
(C) C   (D) D

75. When seen through a mirror, a clock shows 8:30, the correct time is
(A) 2:30   (B) 3:30
(C) 8:30   (D) 5:30

76. If "TREASURE" is coded as "VTEAUUTE" what is the code for "VIOLATION"?
(A) XIONAPOIV   (B) XKQNCVKQN
(C) XKNNAVKOP   (D) XIONAVIOP

77. Attenuate : Evacuate : : Replenish : ---------- ?
(A) Inhale   (B) Reuse
(C) Restore   (D) Evict

78. Some statements are given below. Find which of the following conclusion logically follows the given statement.
1. All Exams are Tough.
2. Some exams are UPSC.
3. No UPSC is Corrupt.
(A) Some Exams are Corrupt.
(B) Some Tough is not UPSC.
(C) Some tough is corrupt
(D) Some Exams are not Corrupt.

79. Find the missing term (?) in the series
2 , 7 , ? , 29 , 46 , 67 , 92
(A) 16   (B) 18
(C) 17   (D) 19

80. Select the alternative which shows similar relationship as the given pair.
Spiders : Cluster
(A) Fish : Hook   (B) Starlings : Herd
(C) Flamingos : Pat   (D) Crows : Troop

81. Rearrange the jumbled letter to make a meaningful word and then select the one which is different.
(A) RAAE   (B) EOZN
(C) MDINOA   (D) NEAOSR

82. Rajeev has a son Raunak and a sister Shilpi who is the mother of Sujay and Vijay. Hari is Sujay's maternal uncle. How is Hari related to Raunak?
(A) Nephew   (B) Paternal Uncle
(C) Cousin   (D) Maternal Uncle

Direction (83 –85): Read the following information carefully and answer the question:

There are five friends Chaitu, Shaileja, Varna, Priyanka and Prajakta. They like different Fruit and are in different profession. Chaitu likes Orange and is an Engineer. The Lawyer like Banana. Shaileja and Priyanka like Apple and Grapes respectively and neither of them is a Teacher. Varna like Watermelon and The Inspector likes grapes. One of five is a Fashion Designer.

83. Which Fruit does the Teacher like?
(A) Watermelon   (B) Apple
(C) Grapes   (D) Banana

84. Who is the Fashion Designer?
(A) Priyanka   (B) Prajakta
(C) Shaileja   (D) Varna

85. Which of the following is wrong pair?
(A) Priyanka - Inspector
(B) Prajakta - Grapes
(C) Apple - Fashion Designer
(D) Varna -Teacher

86. Which of the following is not similar to the other?
(A) Delhi   (B) Bhagalpur
(C) Haridwar   (D) Mirzapur

87. Which statement is required for giving the correct answer of the following question?
What is the position of Prerana with respect to Sushil?
I. Kisan is left to Sushil.
II. Kisan is to the south of Prerana.
(A) If Only I is sufficient
(B) If Only II is sufficient
(C) Both I and II together are sufficient
(D) Neither I nor II is sufficient.

88. What is the minimum number of straight lines that is needed to construct the given figure?
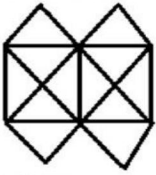
(A) 15　　　　　　　(B) 11
(C) 13　　　　　　　(D) 21

89. An Assertion and a Reason given below choose the correct option:
Assertion (A): The same side of the moon faces the earth at all times.
Reason (R): Moon is the only natural satellite of the Earth.
(A) Both A and R is true but R is not the correct explanation of A
(B) Both A and R is true and R is the correct explanation of A
(C) A is false but R is true
(D) Both A and R is false

90. In a row there are 30 students. Richa is 12th from the left and Prachi is 13th from the right end. Supriya sits between Richa and Prachi. What is Supriya's position from Left?
(A) 16th　　　　　　(B) 15th
(C) 17th　　　　　　(D) 14th

91. Which one of the four interchanges in sign and numbers would make the given equation correct?
$3 + 2 \times 4 - 6 = 8$
(A) × and - , 4 and 2　　(B) - and +, 6 and 2
(C) × and +, 2 and 4　　(D) × and +, 2 and 6

92. Which of the following appear third if they are arranged according to the dictionary?
(A) Apprehensive　　　(B) Appendix
(C) Application　　　　(D) Appreciate

93. Arav started walking he turned left and then turned right and then towards left again now he finds that he is walking towards north. In which direction he started walking at first.
(A) North　　　　　　(B) East
(C) West　　　　　　(D) South

Direction (94-95): Study the following diagram and answer the questions based on it. Symbols represent students with different degrees.
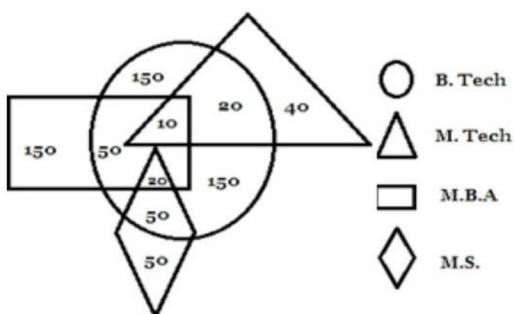
94. What is the ratio of B.tech student and who do not have B.Tech degree?
(A) 9/8　　　　　　　(B) 15/8
(C) 7/5　　　　　　　(D) 15/13

95. How many students have done B.Tech and M.Tech but not M.B.A?
(A) 10　　　　　　　(B) 30
(C) 40　　　　　　　(D) 20

96. Find the odd one out
(A) U　　　　　　　(B) H
(C) T　　　　　　　(D) N

97. A school recruits teachers with the following criteria-
1. Candidate should have at least B. Ed Degree.
2. Candidate must be fluent in Hindi and English.
3. Candidate should have at least one year of teaching experience.
Which candidate among the following will the school definitely take?
(A) Niharika is post graduate fluent in Hindi and English and have two year of teaching experience.
(B) Neha is a graduate fluent in Hindi and English, have done B.Ed and have three year of teaching experience.
(C) Rahul is fluent in Hindi English have done B. Ed this year and do not have any experience.
(D) None of these are eligible

98. Some numbers are missing which are given in that order as one of the alternative given below it. Choose the correct alternative.
_ _ 1 2 1 _ _ 2 1 _ 1 2
(A) 1 2 2 2 1　　　　(B) 2 1 1 2 2
(C) 1 2 2 1 2　　　　(D) 2 2 1 2 1

99. Three statements are given below and two conclusions are given. you have to take the given statement to be true even if they seems to be at variance with commonly known facts and then decide which of the following conclusion logically follows.
Statement: 1. All Books are Papers.
2. Some papers are Notebooks.
3. Some Notebooks are Computers.
Conclusion: I. Some Notebooks are Books.
II. Some Papers are Computers.
(A) Only I follows　　　(B) Only II follows
(C) Both I and II follow.　(D) None follows.

100. There are five family member A, G, K, M and S. A is older than S.M is elder than A but younger than K. K is elder than S.S is younger than M.G is the eldest. Who is youngest member in the family?
(A) A　　　　　　　(B) S
(C) K　　　　　　　(D) M

ಸ್ಪರ್ಧಾಗುರು
Spardhaguru India Private Limited

Name:

Mobile: **Ph No:**

Subject: **Date of Exam:**

ROLL NO.	MOBILE NUMBER	Important Instructions

Correct Method

A B ● D

Wrong Method

- Marks should be dark and completely fill the circle.
- Rough work must not be done on the answer sheet.
- Make the marks only in the space provided.
- Please do not make any stray marks on the answer sheet.

1	A B C D	21	A B C D	41	A B C D
2	A B C D	22	A B C D	42	A B C D

(Questions 1–100, each with options A B C D, arranged in five columns: 1–20, 21–40, 41–60, 61–80, 81–100)

Correct	
Incorrect	
Marks	

Student's Signature	Maximum Marks	Marks Obtained	Marks in %	Remarks