RRB NTPC Previous Year Paper 05_(Solutions)

1. (b);
Sol. LOWELY → YELLOW
THIWE → WHITE
WRONB → BROWN
IFER → No word formed that resembles a colour

2. (b);
Sol. ? = 16 × 5 – (18 + 16 + 22+ 13) = 11

3. (d);
Sol. + 1 series

4. (c);
Sol. Mars is a cold desert world. It is half the size of Earth. Mars is sometimes called the Red Planet. It's red because of rusty iron in the ground.

5. (a);
Sol. Calcium hydroxide is an inorganic compound with the chemical formula Ca $(OH)_2$. It is a colorless crystal or white powder and is obtained when calcium oxide (quicklime) is mixed, or slaked with water.

6. (c);
Sol. Nurse is related to ward and teacher is related to class.

7. (d);
Sol. Smiling Buddha was the assigned code name of India's first successful nuclear bomb test on 18 May 1974.

8. (b);
Sol. S W Y V X T

9. (a);
Sol. 10. (a);
Sol.

11. (d);
Sol. Jantar Mantar is an observatory constructed by Maharaja Jai Singh of Jaipur in 1724. The essential purpose of the Jantar Mantar was to accumulate astronomical tables which in turn would help predict the time and movement of the celestial bodies such as the sun, moon and other planets.

12. (a);
Sol. The Bharat Stage emission standards are standards instituted by the government to regulate the output of air pollutants from motor vehicles from internal combustion engine equipment, including motor vehicles

13. (b);

14. (c);

15. (b);
Sol. Let there be x no. of men originally
∴ ATQ
x × 20 = (x – 5) × 40 ⇒ x = 10

16. (d);
Sol. Prime numbers between 60-100
61, 67, 71, 73, 79, 83, 89, 97, = 8

17. (b);
Sol. Clearly,
$1.25\ C_1 = 1875$
And,
$0.75 C_2 = 1875$
$\Rightarrow C_1 = 1500$ and $C_2 = 2500$
So, $C_1 + C_2 = 4000$
And $S_1 + S_2 = 3750$
Loss = 250

18. (c);
Sol. The Kyoto Protocol is an international treaty which extends the 1992 United Nations Framework Convention on Climate Change (UNFCCC) that commits State Parties to reduce greenhouse gas emissions. It was adopted in Kyoto, Japan, on December 11, 1997 and entered into force on February 16, 2005. There are currently 192 parties (Canada withdrew effective December 2012) to the Protocol.

19. (b);
Sol. y = 5
$y^4 - y^2 - 4$
$= 5(625 - -25 - 5) = 2975$

20. (b);
Sol. Let two positive no. be x & y

$$\begin{array}{rcl} x + y & = & 34 \\ x - y & = & 8 \\ \hline 2x & = & 42 \\ x & = & 21 \end{array} , y = 13$$

x = 21, y = 13
∴ xy = 21 × 13 = 273

21. (b);
Sol. Let the two numbers be 2x & 3x
∴ 2 × x × 3 = 66 ⇒ x = 11
∴ two numbers = 22 & 33
Their sum = 22 + 33 = 55

22. (b);
Sol. 3 6 P 6 Q 7 R 8 S 11
36 ÷ 6 + 7 × 8 – 11 = 6 + 56 – 11 = 51
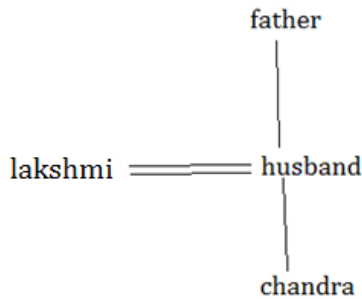
23. (b);
Sol. In a more general sense, multitasking refers to having multiple programs, processes, tasks, threads running at the same time.

24. (a);
Sol. Union Government has launched the School Nursery Yojana in a bid to bring school students closer to nature by involving them in raising of saplings in school nurseries.

25. (b);
Sol.

Chandra is the daughter of Lakshmi.

26. (a);
Sol. Chief Election Commissioner of India can be removed from his office by the Parliament with a two-thirds majority in both the Lok Sabha and the Rajya Sabha on the grounds of proved misbehavior or incapacity.

27. (b);
Sol. $\cos^2 90° + \csc^2 90° - \cot^2 45$
$= 0 + 1 - 1 = 0$

28. (a);
Sol. The population density of India has gone up to 382 persons per square kilometre in 2011 from 325 persons per square kilometre in 2001.

29. (d);
Sol. Father's age = 54
Mother's age = 52
Younger sister age = 26
Elder sister = 30

30. (d);
Sol. $2^2 - 3^3 + 4^3 - 6^2$
$= 4 - 27 + 64 - 36 = 5$

31. (b);
Sol. This international tournament held at the Babu Banarasi Das Indoor Stadium, Lucknow, Uttar Pradesh, India.

32. (b);
Sol. Archana Ramasundaram becomes first woman to head paramilitary forces.

33. (c);
Sol. Pashtun leader and nonviolent activist Abdul Ghaffar Khan, also known as
Badshah Khan or Bacha Khan.

34. (d);
Sol. TN = 4350   (lowest)
JK = 4400
HP = 4500
WB = 4900
GA = 5500

35. (c);

36. (c);
Sol. June = 5800
July = 5850
Aug = 5700   (lowest)
Sep = 6300

37. (b);
Sol. S.I for 4 years = 1200 – 840 = 360
S.I for 3 years =270
Principal = 840 – 270 = 570

38. (b);
Sol. Required distance = 7 × 4 – (3 + 4 + 3.5 + 5 + 4.5)
= 8 km

39. (a);
Sol.

2	16,	24
2	8,	12
2	4,	6
	2,	3

LCM = $2^4 \times 3 = 48$
HCF = $2^3 = 8$

40. (c);
Sol. Saffron (Crocus sativus) is one of the most important foreign exchange earners crop among the spices grown entirely in the state of Jammu and Kashmir in India. Where about 49 per cent of its total produce is exported.

41. (c);
Sol. SI $= 3000 \times \frac{12}{100} \times 1$ = Rs 360
∴ equal monthly installment $= \frac{3800 + 360}{12}$ = Rs 280
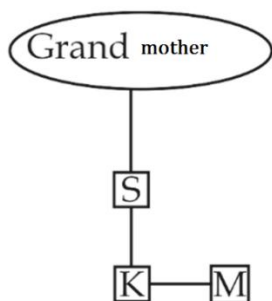
42. (b);
Sol. Afghanistan is an Islamic republic consisting of three branches of power (executive, legislative, and judiciary) overseen by checks and balances.

43. (c);
Sol. 'hate' = 'vi'

44. (d);
Sol.

45. (a);
Sol. $\frac{2+3+3+4+6+7}{6} = 4.17$

46. (b);
Sol. Novak Djokovic won the majority (3 of 4 grand slams) of the men's singles tennis grand slam tournaments in 2015

47. (c);
Sol. distance travelled by them in 10 sec
$= (45 + 63) \times \frac{10}{3600}$
$= \frac{108}{360} = \frac{12}{40} = 0.3$ km
Note: This is the sum of distance travelled by them in last 10 seconds

48. (b);
Sol.

1	2	3	4	5	6	7
C	A	B	I	N	E	T

E	I	A	C	B	T	N
6	4	2	1	3	7	5

$\therefore$

1	2	3	4	5	6	7
C	O	M	P	U	T	E

6	4	2	1	3	7	5
T	P	O	C	M	E	U

49. (a);
Sol. The National Flag was adopted in its present form during a meeting of the Constituent Assembly held on 22 July 1947.

50. (b);
Sol. Milk sours due to the action of microorganisms which convert the sugar lactose to lactic acid. Acidic substances have a sour taste and the development of a sour taste in milk is caused by the breakdown of lactose by bacteria such as lactobacilli.

51. (b);
Sol. CP = 10 × 75 + 85 × 20
= Rs 750 + Rs 1700
SP = Rs (750 × 1.2 + 1700 × 1.1)
= 900 + 1870 = Rs 2770

52. (a);
Sol. The disease is caused by yellow fever virus and is spread by the bite of an infected female mosquito. It infects only humans, other primates, and several species of mosquitoes. In cities, it is spread primarily by Aedes aegypti, a type of mosquito found throughout the tropics and subtropics
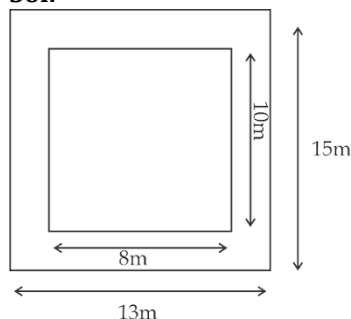
53. (c);

54. (c);

55. (b);
Sol. Screen is not a tv channel.

56. (c);
Sol.

∴ Area = 13 × 15 m² =195 m²

57. (b);
Sol. Leopard, Tiger, Jaguar and Lion, all of them belong to the cat family.

58. (b);
Sol. The end of British rule in India came in the year 1947 with the Independence Of India on 15th August 1947.

59. (a);
Sol. CP = Rs 4000
SP = Rs (400 × 0.8 × 5 + 400 × 1.1 × 5) = Rs 3800
Loss% = $\frac{200}{4000}$ × 100 = 5%

60. (c);
Sol. Victoria Falls, or Mosi-oa-Tunya is a waterfall in southern Africa on the Zambezi River at the border between Zambia and Zimbabwe.

61. (b);
Sol. Oxidation is the loss of electrons or an increase in oxidation state by a molecule, atom, or ion.

62. (b);
Sol. The first chairman of the ISRO was Dr. Vikram Sarabhai.

63. (d);
Sol. Firewall can be both software and hardware. Firewalls enforced can be either hardware or software, but the perfect configuration will contain both.

64. (d);
Sol. Area = πr²
$= \frac{22}{7} × 14 × 14$ = 616 m²
Cost = 616 × 125 = Rs 77000

65. (b);
Sol. Yankee Stadium is a baseball park located in Concourse, Bronx, New York City.

66. (c);
Sol.

67. (d);
Sol. CP = Rs $\frac{2100}{1.25}$ = Rs 1680

68. (d);

69. (a);

70. (c);
Sol. A generator converts mechanical energy into electrical energy, while a motor does the opposite - it converts electrical energy into mechanical energy.

71. (b);
Sol. The force that pulls out from the center on a body in circular motion is called centrifugal force and it increases with acceleration. Centrifugal force results in strong outward pull on your vehicle.

72. (b);
Sol. Prime Minister of India is the president of the Council of Scientific and Industrial Research.

73. (c);
Sol. The newest base commissioned in 2015 is Bharati, constructed out of 134 shipping containers.

74. (d);
Sol. Average speed $= \dfrac{30 + 20}{\frac{1}{2} + \frac{1}{4}} = \dfrac{50 \times 4}{3}$ = 66.67 km/s

75. (b);
Sol. Gagan Narang is an Indian shooter, supported by the Olympic Gold Quest. He was the first Indian to qualify for the London Olympics.

76. (c);
Sol. 23 = 12 × 2- 1
45 = 23 × 2 – 1
89 = 45 × 2 – 1
177 = 89 × 2 – 1

77. (c);
Sol. Microsoft was founded by Bill Gates and Paul Allen on April 4, 1975, to develop and sell BASIC interpreters for the Altair 8800.

78. (c);
Sol. F = 6
T   H   E
20 + 8 + 5 = 33

W   O   M   A   N
23 + 15 + 13 + 1 + 14 = 66

79. (b);
Sol. 22 + 36 – 12 × 6 ÷ 4
↓
22 – 36 ÷ 12 + 6 × 4
= 22 – 3 + 24 = 43

80. (d);
Sol. Among the following, Gall bladder is not a gland.

81. (a);
Sol. M.R. Poovamma and Babita Kumari have been conferred with prestigious Arjuna Award 2015 for their individual achievements in sports.M.R. Poovamma has been conferred with this award for her contributions in Athletics and Babita Kumari in the field of Wrestling.

82. (b);
Sol. The 32-bit IP address is grouped in four 8-bit octets, separated by dots and represented in dotted-decimal notation. Each bit in the octet has a binary weight (128, 64, 32, 16, 8, 4, 2, 1) with a minimum value of zero and a maximum value for an octet of 255.

83. (c);
Sol. $x + y = 19$...(i)
$x - y = 7$...(ii)
        (i) + (ii)
$2x = 26$
$x = 13, y = 6$
$\therefore xy = 13 \times 6 = 78$

84. (c);
Sol.

$\therefore$ time $= \frac{60}{2} = 30$ min

85. (c);
Sol. Let no. of students = 100
Total marks = 5800
20% of 100 = 20
Marks of 2 students = 20 × 60 = 1200
30% of 100 = 30
Marks of 30 students = 30 × 40 = 1200
Required mean = $\frac{5800 - 1200 \times 2}{50} = 68$
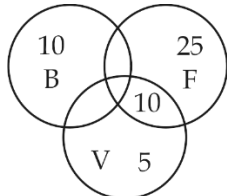
86. (c);
Sol. This iconic building was inaugurated in 1927 by Lord Irwin, the then Governor-General of India.

87. (b);
Sol. Anemia is a condition in which your blood has a lower-than-normal amount of red blood cells or hemoglobin.

88. (c);
Sol.

Required = 10 + 25 = 30

89. (b);
Sol. Ratio = $\frac{25+10}{10} = \frac{35}{10} = \frac{7}{2}$

90. (b);
Sol. 10 + 25 + 5 = 30

91. (c);
Sol. Colour of sky is blue.

92. (c);
Sol. The trail run of 'odd-even' traffic scheme for Delhi was based on vehicle registration numbers.

93. (c);

94. (a);
Sol. Ratio remains unchanged

95. (a);
Sol. Time is same. Let it be 't'
60 × t − 50 × t = 20
10t = 20 ⇒ t = 20
∴ Distance = 50 × 2 = 100 km

96. (b);
Sol. The Hornbill Festival is a celebration held every year from 1 - 10 December, in Nagaland, Northeast India. It is also called the 'Festival of Festivals'.

97. (b);
Sol. Nonagon have nine sides.

98. (c);
Sol. $\frac{9}{17} = \frac{27}{x} \Rightarrow x = \frac{17 \times 27}{9} = 51$

99. (c);
Sol. Union Government Budget deficit for a particular financial year represents the amount of money that the Government has to borrow.

100. (b);
Sol. On 14 June 2014, the Prime Minister of India formally inducted INS Vikramaditya into the Indian Navy and dedicated her to the nation.