ROYAL CIVIL SERVICE COMMISSION
BCSE-B.ED GRADUATES EXAMINATION 2015
PAPER III: TEACHER APTITUDE TEST

QUESTION PAPER SERIES: | A |

ROLL NUMBER: BCSE (B.ED) – 2015 – __ __ __ __ __

Date : **January 13, 2016**
Total Marks : **100**
Examination Time : **180 Minutes (3 Hours)**
Reading Time : **15 minutes (prior to examination time)**

READ THE FOLLOWING INSTRUCTIONS CAREFULLY:

1. Write your Registration Number clearly in the space provided above. Also write your Registration Number, CID Number and Question Paper Series on the OMR Answer Sheet and accordingly shade as per instructions on the OMR Answer Sheet.

2. The first 15 minutes are to check the number of pages, printing errors, clarify doubts and to read the instructions (Question Paper as well as OMR Answer Sheet). You are NOT permitted to write during this time.

3. The Question Paper consists of 21 pages including this Instruction page. In addition, 5 blank pages are provided for rough work. The Paper is divided into Four Sections as follows:

   Section A   : Logical Reasoning
   Section B   : Basic Data Interpretation
   Section C   : Problem Solving
   Section D   : General Awareness

4. This Paper consists of 100 Multiple Choice Questions, each carrying 1 Mark. All Questions are compulsory.

5. All answers must be marked on the OMR Answer Sheet provided. You are NOT allowed to write anything on the question paper or any other materials. Use the blank sheets provided for rough work.

6. Use PENCIL to mark your Answers. Do NOT use Pen.

7. You are required to hand over the question paper along with OMR Answer Sheet to the Invigilator before leaving the examination hall.

GOOD LUCK!

SECTION A
LOGICAL REASONING

This section consists of 25 multiple-choice questions. Answer all the questions. Each question has four optional responses (A, B, C, D). Choose the correct response. (25 x 1 = 25 Marks)

1. Choose the pair that best represents a similar relationship to the one expressed in the pair - PETAL : FLOWER:

   A. SALT : PEPPER
   B. TYRE : BICYCLE
   C. BASE : BALL
   D. SANDAL : SHOES

2. Choose the pair that best represents a similar relationship to the one expressed in the pair - SOUND : CACOPHONY:

   A. SPEECH : ORATION
   B. TOUCH : MASSAGE
   C. SMELL : STENCH
   D. SIGHT : PANORAMA

3. Look at this series: 22, 21, 23, 22, 24, 23, ... What number should come next?

   A. 22
   B. 24
   C. 25
   D. 26

4. Look at this series: 7, 10, 8, 11, 9, 12, ... What number should come next?

   A. 7
   B. 10
   C. 12
   D. 13

5. Look at this series: 1.5, 2.3, 3.1, 3.9, ... What number should come next?

   A. 4.2
   B. 4.4
   C. 4.7
   D. 5.1

6. Look at this series: 201, 202, 204, 207, ... What number should come next?

   A. 205
   B. 208
   C. 210
   D. 211

7. Look at this series: 8, 6, 9, 23, 87, ... What number should come next?

   A. 128
   B. 226
   C. 324
   D. 429

8. Look carefully for the pattern, and then choose which pair of numbers comes next:
   28   25   5   21   18   5   14

   A. 11 5
   B. 10 7
   C. 11 8
   D. 5   10

9. Look carefully for the pattern, and then choose which pair of numbers comes next:
   8   11   21   15   18   21   22

   A. 25 18
   B. 25 21
   C. 25 29
   D. 24 21

10. Look carefully for the pattern, and then choose which pair of numbers comes next:
    9   16   23   30   37   44   51

    A. 59 66
    B. 56 62
    C. 58 66
    D. 58 65

11. Look carefully for the pattern, and then choose which pair of numbers comes next:
    84   78   72   66   60   54   48

    A. 44 34
    B. 42 36
    C. 42 32
    D. 40 34

12. Look carefully for the pattern, and then choose which pair of numbers comes next:

    20   20   17   17   14   14   11

    A. 8 8
    B. 11 11
    C. 8 11
    D. 11 8

13. Look carefully for the pattern, and then choose which pair of numbers comes next:

    42   40   38   35   33   31   28

    A. 25 22
    B. 26 23
    C. 26 24
    D. 25 23

14. Look carefully for the pattern, and then choose which pair of numbers comes next:

    6   10   14   18   22   26   30

    A. 34 38
    B. 33 37
    C. 36 40
    D. 34 36

15. Look carefully for the pattern, and then choose which pair of numbers comes next:

    8   12   9   13   10   14   11

    A. 14 11
    B. 15 12
    C. 8 15
    D. 15 19

16. Look carefully for the pattern, and then choose which pair of numbers comes next:

    2   44   4   41   6   38   8

    A. 10 12
    B. 35 32
    C. 34 9
    D. 35 10

17. Look carefully for the pattern, and then choose which pair of numbers comes next:

    17   32   19   29   21   26   23

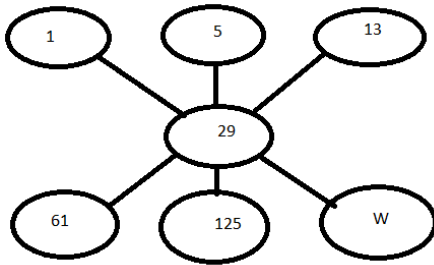   A. 25 25
    B. 20 22
    C. 23 25
    D. 25 22

18. Look at this series: F2, __, D8, C16, B32, ... What number should fill the blank?

    A. A16
    B. G4
    C. E4
    D. E3

19. Look at this series: 664, 332, 340, 170, ____, 89, ... What number should fill the blank?

    A. 85
    B. 97
    C. 109
    D. 178

20. Look at this series: $(\frac{1}{9})$, $(\frac{1}{3})$, 1, ____, 9, ... What number should fill the blank?

    A. $\frac{2}{3}$
    B. 3
    C. 6
    D. 27

21. Look at this series: 0.15, 0.3, ____, 1.2, 2.4, ... What number should fill the blank?

    A. 4.8
    B. 0.006
    C. 0.6
    D. 0.9

22. Look at this series: 70, 71, 76, __, 81, 86, 70, 91, ... What number should fill the blank?

    A. 70
    B. 71
    C. 80
    D. 96

23. If 4, 7, 9 gives 12; 1, 1, 4 gives 4; then what does 2, 5, 6 give?

    A. 6
    B. 9
    C. 4
    D. 8

24. Which number stands for n?

		4	3	2		
	5	3	5	1	1	
6	1	2	8	3	3	1
	7	2	8	4	3	
		9	n	3		

 A. 8
 B. 7
 C. 6
 D. Cannot be determined.

25. Which number replaces the letter W?

 A. 253
 B. 234
 C. 341
 D. 321

SECTION B
BASIC DATA INTERPRETATION

This section consists of 25 multiple-choice questions. Answer all the questions. Each question has four optional responses (A, B, C, D). Choose the correct response. (25 x 1 = 25 Marks)
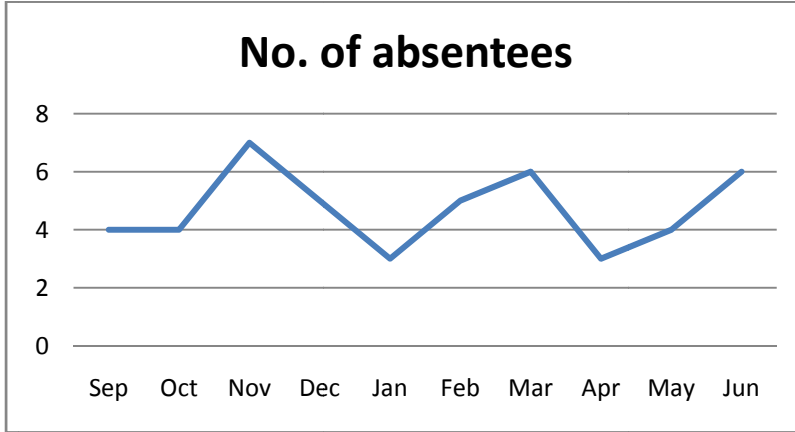
26. Look at the following set of 8 numbers:
 93   43   93   91   67   37   99   93.
 How would the mode change if the number 31 were added to the set?

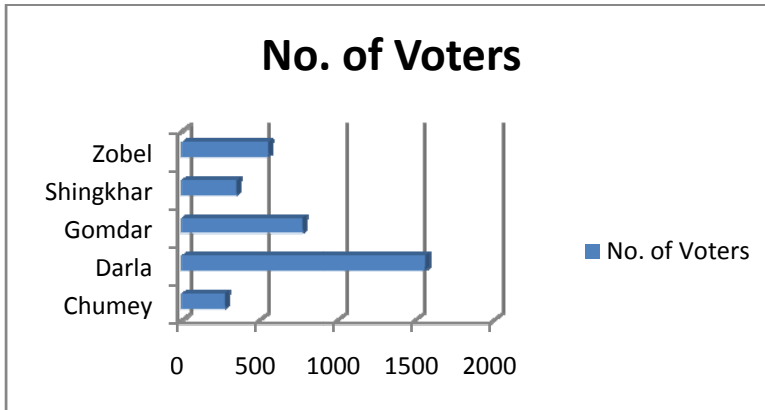 A. Increase
 B. Decrease
 C. No change
 D. Cannot be determined.

27. Use the graph below to answer the question that follows:

No. of absentees

What was the total number of student absentees during the three month period of September, October and November?

A. 8
B. 11
C. 12
D. 15

28. The following graph shows the number of voters.

No. of Voters

Which gewog has the most voters?

A. Chumey.
B. Zobel.
C. Darla.
D. Gomdar.

29. The odd one out in the following is

A. Quartiles
B. Mode
C. Deciles
D. Median.

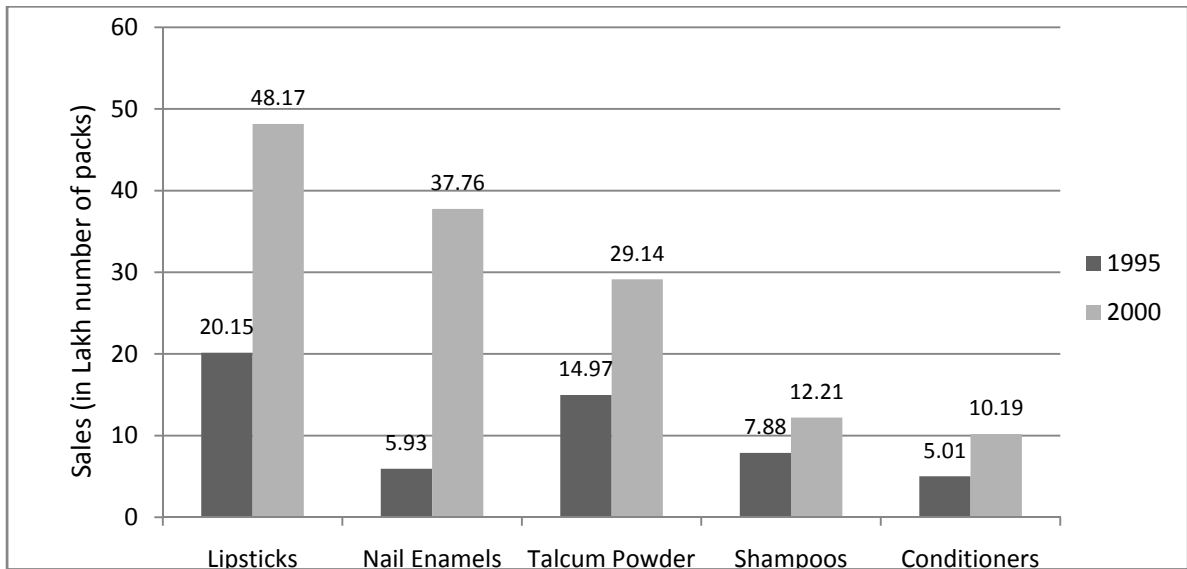30. The following frequency table shows the number of visits to a pan shop last week.

No. of visits	0	1	2	3	4	5
Frequency	1	17	6	4	10	12

How many people went to the pan shop more than 3 times?

A. 4.

B. 10.

C. 24.

D. 22.

A cosmetic company provides five different products. The sales of these five products (in thousand packets) during 1995 to 2000 are shown in the following bar graph. Use the information of the graph to answer Question 31 to 35.

31. By what percent was the sale of lipsticks in 2000 more than the sales of nail enamels in the same year (rounded off to the whole number)?
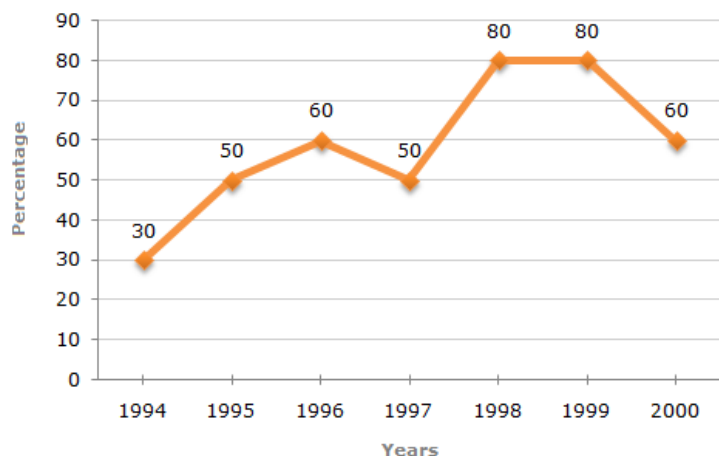
A. 22%

B. 28%

C. 31%

D. 33%

32. During the period 1995-2000, the minimum rate of increase in sales was in the case of

A. Lipsticks

B. Nail enamels

C. Shampoos

D. Talcum powders

33. What is the approximate ratio of the sales of nail enamels in 2000 to the sales of talcum powders in 1995?
    A. 7:2
    B. 5:2
    C. 4:3
    D. 2:1

34. The sales have increased nearly 55% from 1995 to 2000 in case of:
    A. Conditioners
    B. Lipsticks
    C. Nail enamels
    D. Shampoos

35. By what percent was the sales of conditioners in 1995 less than the sales of shampoos in 1995 (to the nearest natural number)?
    A. 57%
    B. 36%
    C. 29%
    D. 25%

The following line graph gives the percentage of the number of students who qualified an examination out of the total number of students who appeared for the examination over a period of seven years from 1994 to 2000. Use the information from the graph to answer the Questions 36-40 that follow.

36. In which of the following pairs of years was there a maximum difference between the percentage of students who qualified to sit for the examinations?
    A. 1994 and 1995
    B. 1995 and 1996
    C. 1997 and 1998
    D. 1998 and 1999

37. In which pair of years was the number of students qualified the same?
    A. 1995 and 1997
    B. 1995 and 2000
    C. 1998 and 1999
    D. Data inadequate

38. If the number of students qualified in 1998 was 21200, what was the number of students appeared in 1998?
    A. 32000
    B. 28500
    C. 26500
    D. 25000

39. If the total number of students appeared in 1996 and 1997 together were 47400, then what was the total number of students qualified in these two years?
    A. 34700
    B. 32100
    C. 31500
    D. Data inadequate

40. The total number of students qualified in 1999 and 2000 together was 33500 and the number of students appeared in 1999 was 26500. What was the number of candidates in 2000?
    A. 19000
    B. 20500
    C. 22000
    D. 24500

The circle-graph given below shows the spending of a country on various sports during a particular year. Study the graph carefully and answer Questions 41 to 45.

41. What percent of total spending is spent on golf?
    A. 36%
    B. 20%
    C. 10%
    D. 12.5%

42. How much percent more is spent on Hockey than that on Golf?
    A. 27%
    B. 35%
    C. 37.5%
    D. 75%

43. If the total amount spent on sports during the year be Nu 18,00,000, the amount spent on Basketball exceeds amount spent on Tennis by:
    A. Nu 25,000
    B. Nu 36,000
    C. Nu 37,500
    D. Nu 41,000

44. How much percent (to the nearest whole number) less is spent on Football than that on Cricket?
    A. 23%
    B. 27%
    C. 33%
    D. 37%

45. If the total amount spent on sports during the year was Rs. 20 lakhs, the amount spent on Cricket and Hockey together was:
    A. Nu 80,000
    B. Nu 8,00,000
    C. Nu 12,00,000
    D. Nu 16,00,000

The following table gives the sales of batteries manufactured by a company over the years. Use the information of the table below to answer the Questions 46 to 50.

Year	Types of Batteries					
	4AH	7AH	32AH	35AH	55AH	Total
1992	75	144	114	102	108	543
1993	90	126	102	84	126	528
1994	96	114	75	105	135	525
1995	105	90	150	90	75	510
1996	90	75	135	75	90	465
1997	105	60	165	45	120	495
1998	115	85	160	100	145	605

Number of different types of batteries sold by a company over the years (Numbers in 100s)

46. What was the approximate percentage increase in the sales of 55AH batteries in 1998 compared to that in 1992?
    A. 28%
    B. 31%
    C. 33%
    D. 34%

47. For which battery is the total sales of all seven years the maximum?
    A. 4AH
    B. 7AH
    C. 32AH
    D. 35AH

48. What is the difference in the number of 35AH batteries sold in 1993 and 1997?
    A. 3900
    B. 3500
    C. 2900
    D. 2400

49. In which year was the percentage of 4AH batteries sold to the total number of batteries sold minimum?
    A. 1994
    B. 1998
    C. 1992
    D. 1997

50. In case of which battery there was a continuous decrease in sales from 1992 to 1997?
    A. 4AH
    B. 7AH
    C. 32AH
    D. 35AH

SECTION C
PROBLEM SOLVING

This section consists of 25 multiple-choice questions. Answer all the questions. Each question has four optional responses (A, B, C, D). Choose the correct response. (25 x 1 = 25 Marks)
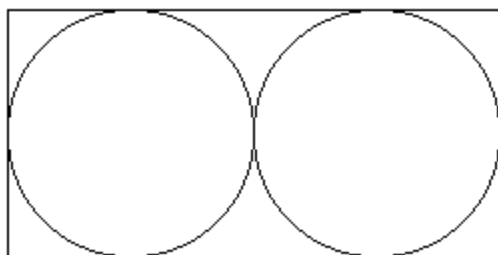
51. The value of $x + x(x^x)$ when $x = 2$ is:
    A. 10
    B. 16
    C. 18
    D. 36

52. Mr. Penjore sold two books at Nu 120 each. Based on the cost, his profit one was 20% and his loss on the other was 20%. On the sale of the books, he:
    A. Lost Nu 40
    B. Gained Nu 40
    C. Broke even
    D. Lost Nu 10

53. The distance light travels in one year is approximately 5,870,000,000,000 miles. The distance light travels in 100 years is:
    A. 587×10^8 miles
    B. 587×10^{10} miles
    C. 587×10^{-10} miles
    D. 587×10^{12} miles

54. If $10^{2y} = 25$, then 10^{-y} equals:
    A. $\dfrac{-1}{5}$
    B. $\dfrac{1}{5}$
    C. $\dfrac{1}{25}$
    D. $\dfrac{-1}{25}$

55. Which of the following could not be the lengths of the sides of a right angled triangle?
    A. 3, 4, 5
    B. 5, 12, 13
    C. 3, 6, 9
    D. 6, 8, 10

56. Consider the expression: $\dfrac{a^2 - b^2}{a+b}$. If a and b are both positive, which of the following is the simplification of the given expression?
    A. ab
    B. a + b
    C. a – b
    D. It cannot be simplified further

57. Two equal circles are cut out of a rectangle of card of dimensions 16 by 8. The circles have the maximum diameter possible. What is the approximate area of the paper remaining after the circles have been cut out?
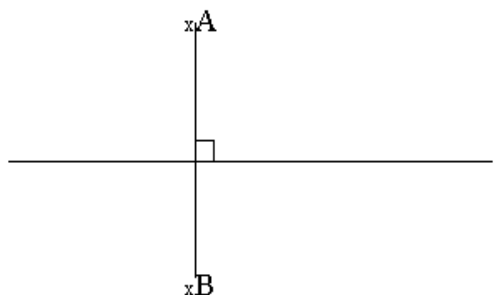

    A. 13
    B. 28
    C. 50
    D. 104

58. The rotation that the hour hand of a clock makes through between noon and 2.30 in the afternoon of the same day is
    A. 720 degrees
    B. 180 degrees
    C. 120 degrees
    D. 75 degrees

59. A and B are equidistant from the line *l*. How many circles can be drawn with their centres from the line *l* and that passes through both A and B?
    A. 1
    B. 2
    C. >10
    D. The information given is inadequate.

60. 12 litres of water are poured into an aquarium of dimensions 50cm length, 30cm breadth, and 40cm height. How high (in cm) will the water rise? (1 litre = 1000cm^3).
    A. 6
    B. 8
    C. 10
    D. 20

61. Six years ago Deki was P times as old as Benita was. If Deki is now 17 years old, how old is Benita now in terms of P?
    A. 11/P + 6
    B. P/11 + 6
    C. 17 – P/6
    D. 17/P

62. If the product of 6 integers is negative, at the most how many of the integers can be negative?
    A. 3
    B. 4
    C. 5
    D. 6

63. Line *l* contains the points (3, 1) and (4, 4). If line *m* is a different line, parallel to line *l* in the same coordinate plane, which of the following could be the equation of line *m*?
    A. y = 3x – 8
    B. y = 1/3x – 3
    C. y = -3x – 8
    D. y = -8x + 3

64. 6 people meet for a business lunch. Each person shakes hands once with each other person present. How many handshakes take place?
    A. 21
    B. 18
    C. 15
    D. 10

65. Palden's father makes furniture for a hobby. Last month he made 4-legged tables and 3-legged stools. When he finished, he had used 37 legs. What are some of the possibilities that he made?
    (i) One table and 11 stools
    (ii) Two table and 9 stools
    (iii)Four tables and 7 stools

A. (i) and (ii)
B. (i) and (iii)
C. (ii) and (iii)
D. All the three.

66. The length of a tennis court is 6 feet more than twice its width. If the court is 36 feet wide, what is its perimeter?
    A. 132 feet
    B. 208 feet
    C. 216 feet
    D. 228 feet

67. Leki received four stamps from England, Spain, France and Italy for her collection. The stamps are not marked, so she does not know which stamp came from each country. A friend gave her the following clues:

• The French stamp is red. • The English stamp has a picture of a castle. • White stamp has a picture of a fountain.	• The flower is on the blue stamp. • The Spanish stamp is not white. • The tower is not on the green stamp.

Using the clue, which of the following is correct?

    A. The white stamp with a fountain is from Italy.
    B. The red stamp with a flower is from France.
    C. The green stamp with tower is from Spain.
    D. The blue stamp with castle is from England.

68. A pie can be cut into seven pieces with three straight cuts. What is the largest number of pieces that can be made with eight straight cuts?
    A. 29
    B. 33
    C. 37
    D. 41

69. If 3 people can complete half of a job in 20 days, how long would it take for 12 people to do the complete job?
    A. 8 days
    B. 10 days
    C. 20 days
    D. 24 days

70. A novel is lying open on a table. If the product of facing pages is 8556, which formula would you use to find the facing pages?

     (i)   n(n+1) = 8556
     (ii)   n(n-1) = 8556
     (iii) 92x93 = 8556

  A. (i) or (ii)
  B. (i) or (iii)
  C. (ii) or (iii)
  D. (i) and (iii)

71. A stamping machine in a toy factory can produce 35 toy cars each minute at a cost of Nu 770. How much would it cost to produce 385 toy cars?
  A. Nu 1540
  B. Nu 3080
  C. Nu 6160
  D. Nu 8470

72. A train running at the speed of 60 km/hr crosses a pole in 9 seconds. What is the length of the train?
  A. 120 m
  B. 150 m
  C. 180 m
  D. 324 m

73. The percentage profit earned by selling a watch for Nu 1920 is equal to the percent loss incurred by selling the same watch for Nu 1280. At what price should the watch be sold to make 25% profit?
  A. Nu 2000
  B. Nu 2200
  C. Nu 2400
  D. Data inadequate

74. The average weight of 8 persons increases by 2.5 kg when a new person comes in place of one of them weighing 65 kg. What might be the weight of new person?
  A. 76 kg
  B. 80 kg
  C. 85 kg
  D. Data inadequate

75. Six bells start tolling together and toll at intervals of 2, 4, 6, 8, 10 and 12 seconds respectively. In 30 minutes, how many times do they toll together?
    A. 4
    B. 10
    C. 15
    D. 16

SECTION D
GENERAL AWARENESS

This section consists of 25 multiple-choice questions. Answer all the questions. Each question has four optional responses (A, B, C, D). Choose the correct response. (25 x 1 = 25 Marks)

76. Who is the head of Department of School Education?
    A. Mr. Tshewang Tandin
    B. Ms. Phintsho Choeden
    C. Mr. Karma Yeshey
    D. Ms. Kesang Choden Dorji

77. The incumbent Thrompoen who has decided not to re-contest in 2016 Thromde election is
    A. Thimphu Thrompoen
    B. Gelephu Thrompoen
    C. Phuentsholing Thrompoen
    D. Samdrup Jongkhar Thrompoen

78. The Vice Principal of Yebilaptsha Middle Secondary School is taken to custody for
    A. Raping a student
    B. Sharing the mid-term question paper with his students
    C. Strangling a student to death
    D. Serving drug to his students

79. How many Universities are there in Bhutan?
    A. One
    B. Two
    C. Three
    D. Four

80. The Tertiary Education Policy of the Kingdom of Bhutan 2010, the service of recognition of qualifications is offered by
    A. Bhutan Council for School Examination and Assessment
    B. Bhutan Medical and Health Council

C. Royal Civil Service Commission

D. Bhutan Accreditation Council

81. Which Dzongkhag in Bhutan has the smallest density of population?
    A. Gasa
    B. Haa
    C. Lhuentse
    D. Zhemgang

82. Three of the short term training programmes that the Ministry of Labour and Human Resources initiated are:
    A. Essential Skills for Employment Programme, Apprenticeship Attachment Programme, and Graduate Skills Programme.
    B. Direct Employment Scheme, Apprenticeship Training Programme, and Youth Employment Skills.
    C. Graduate Skills Programme, Youth Employment Scheme, and Skills for Employment and Entrepreneur Development.
    D. Youth Employment Programme, Direct Employment Programme, and Graduate Preparation Scheme.

83. What is the collection and study of postage stamps called?
    A. prosody
    B. philately
    C. etymology
    D. herpetology

84. COP21 Paris was the Summit in 2015 to discuss about:
    A. Terrorism
    B. Corruption
    C. Climate change
    D. Human trafficking

85. The headquarters of the South Asian Association for Regional Cooperation is in
    A. India
    B. Nepal
    C. Bangladesh
    D. Sri Lanka

86. Who is known as the "Lady with the Lamp"?
    A. Florence Nightingale
    B. Indira Gandhi
    C. Joan of Arc
    D. Sarojini Naidu

87. Which is NOT an election symbol of Bhutan?
    A. Black Necked Crane
    B. White Horse
    C. Swan
    D. Eagle

88. Where, in the Constitution will you find the specifications of the National Flag and National Emblem of Bhutan?
    A. Article 1
    B. Article 2
    C. First Schedule
    D. Second Schedule

89. What is the current Guinness record for most trees planted by a team of 100 men in an hour?
    A. 40,885
    B. 45,792
    C. 49,672
    D. 50,000

90. Out of the following heads of constitutional agencies of Bhutan, the odd one out is
    A. Chogyal Dago Rinzin
    B. Dasho Karma Tshiteem
    C. Kinley Yangzom
    D. Tshering Kesang

91. In 2015, Yaya Toure has been named as the
    A. Asian Footballer of the Year
    B. African Footballer of the Year
    C. American Footballer of the Year
    D. European Footballer of the Year

92. Four of the locations that Bhutan has its Embassies and Missions are
    A. Bangkok, Brussels, New Delhi, and Geneva
    B. Dhaka, Kuwait, Tokyo, and New Delhi
    C. New York, Kolkata, Dhaka, and Kathmandu
    D. Bangkok, Colombo, Geneva, and Kuwait

93. Bangladesh, Bhutan, India and Nepal (BBIN) Friendship Motor Car rally was flagged off on 28 November 2015 from
    A. Pokhara, Nepal
    B. Kolkata, West Bengal
    C. Silchar, Assam
    D. Thimphu, Bhutan

94. "Make it happen" was the theme for
   A. International Day of Persons with Disability 2015
   B. International Women's Day 2015
   C. World AIDS Day 2015
   D. World Environment Day 2015

95. As per the Health Ministry's report 2015, two of the Dzongkhags with the highest HIV cases are
   A. Trashigang and Samtse
   B. Samtse and Thimphu
   C. Thimphu and Chhukha
   D. Chhukha and Samdrup Jongkhar

96. Pausing is a part of questioning skill. The most appropriate duration of pause
   A. is less than 2 seconds.
   B. is between 2 and 5 seconds.
   C. is more than 5 seconds.
   D. depends on the level of question.

97. What is the word used to describe an animal/plant that is both male and female?
   A. Hermaphrodite
   B. Transgender
   C. Intersex
   D. Androgynous

98. What is infant whale commonly called?
   A. Cub
   B. Pup
   C. Calf
   D. Fawn

99. Which of the following is the catchphrase of the Royal Civil Service Commission?
   A. Efficiency of Service
   B. Excellence in Service
   C. For Country and People
   D. Integrity and Loyalty in Service

100.   How old is a horse when it changes from a filly to a mare?

   A. One year
   B. Two years
   C. Three years
   D. Four years