ROYAL CIVIL SERVICE COMMISSION BCSE-B.ED GRADUATES EXAMINATION 2012

PAPER III: TEACHER APTITUDE TEST

QUESTION PAPER SERIES:

А

ROLL NUMBER: BCSE (B.Ed) – 2012– _____

Date: January 10, 2013Total Marks: 100Examination Time: 180 Minutes (3 Hours)Reading Time: 15 minutes (prior to examination time)

READ THE FOLLOWING INSTRUCTIONS CAREFULLY:

- 1. Write your Roll Number clearly in the space provided above. Also write your Roll Number, CID Number and Question Paper Series on the OMR Answer Sheet and accordingly shade as per OMR Answer Sheet Instructions.
- 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 26 pages excluding this Instruction page. In addition, 4 blank pages are provided for rough work. The Paper is divided into Four Sections as follows:

Section I	: Logical Reasoning
Section II	: Basic Data Interpretation
Section III	: Problem Solving
Section IV	: 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 ball-point pen (blue or black) to mark your Answers. Do not use pencil.
- 7. You are NOT allowed to take away this Question Paper. Do return it with the OMR Answer Sheet to the Invigilator.

SECTION I 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. When Herodotous wrote his history of the ancient world he mixed the lives of the famous with those of the everyday. He wanted not only to record the events that shaped his world but also to give his readers a taste of life in past times and faraway places.

Which of the following best summarizes the above?

- A Herodotous performed the tasks of both historian and journalist.
- B Historians alone cannot reconstruct times and social circles.
- C Herodotous relied on gossip and hearsay to compile his essays.
- D Herodotous's history was based on scanty evidence.
- 2. This year the marks obtained by students in a Mathematics exam drastically improved compared to the previous year.

Each of the following statements would account for the above except

- A The students spent extra time preparing for the exam.
- B The exam paper was relatively less difficult this year.
- C The students did not have to study Dzongkha this year.
- D The students had better Mathematics teachers this year.
- 3. In a particular year there were 15 deaths from automobiles per 1000 miles travelled. A total of 30,000 miles were travelled via automobiles in that year. In the same year 700 people died in airplane crashes and 500 people were killed in train disasters. A statistician concludes that it was more dangerous to travel by plane, train and automobile, in that order.

Which of the following statements refutes the statistician's conclusion?

- A There is no common denominator by which to compare the number of deaths resulting from each mode of travel.
- B One year is insufficient to reach such a conclusion
- C More people travel by car than by any other mode, therefore, the possibility of a car accident is greater.
- D The probability of getting killed in a train disaster is the greatest.

4. Class IX students of Lungtenzampa Middle Secondary School enjoy gardening at school. Therefore, school authorities should institute gardening as a subject in the school.

Which of the following statements weakens the above argument?

- A The school authorities have the power to include another subject.
- B The extra subject will not hamper the students' academics.
- C Class X students also enjoy and support the idea.
- D Classes VIII and VII students are not very keen on gardening.
- 5. In country X, in 1980 infant mortality, on average, were 10 deaths per 10,000 live births. In 1990 there were 6 deaths per 10,000 live births. Today there are 4 deaths per 10,000 live births, and it is anticipated that the downward trend will continue.

Each of the following would help account for this trend except

- A The number of doctors per person in the country has increased.
- B The quality and reach of medical services have seen great improvement.
- C More effective birth control mechanisms have been implemented.
- D Sanitary conditions have improved.
- 6. A student observes that days are very hot every time he sees more people wearing shorts, and concludes that wearing of shorts by more people cause days to become hotter.

Which of the following according to you is a correct evaluation?

- A The student is right.
- B The student is wrong because he has got the cause and effect mixed up.
- C Shorts can be worn on cold days also.
- D This phenomenon has to be investigated further.
- 7. Dollar, Yen, Pound and Ngultrum are all money. Cent is a kind of Dollar, Pence is a kind of Pound and Chhetrum is a kind of Ngultrum.

Which one of the following is false?

- A Chhetrum is money but not Pence.
- B Yen and Pence are money but not Chhetrum.
- C Ngultrum can also be expressed as Chhetrums.
- D Since Yen and Pound are both money, Pence is also Yen.

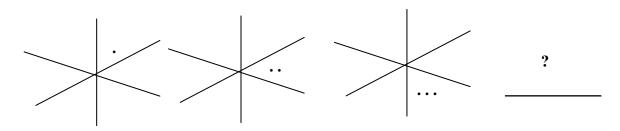
				com	pret		 ence
8.	1,	3, 6	5, 11	, 1	8,	29,	
		А	42				
		В	45				
		С	66				
		D	40)			
9.	22,	24,	28,	34,	42	,	
		А	82				
		В	76				
		С	52	,			
		D	72				
10							
10.	1, 3	8, 27	, 64,			-	
		А	91				
		В	22	5			
		С	15	0			
		D	12	5			

In questions 8, 9 and 10 complete the sequence.

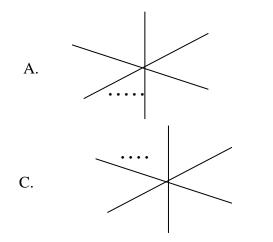
In questions 11 and 12 determine the odd one.

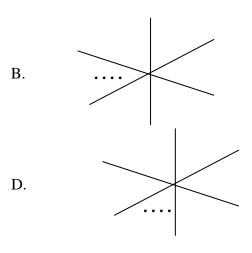
- Lyonpo Thakur Singh Powdyel, Lyonpo Zangley Dukpa, MP (Member of Parliament) Jagar Dorji, MP Karma D. Wangdi
 - A Lyonpo Thakur Singh Powdyel
 - B Lyonpo Zangley Dukpa
 - C MP Jagar Dorji
 - D MP Karma D. Wangdi
- 12. Facebook, Youtube, Google, Froogle, Online
 - A Youtube
 - B Online
 - C Google
 - D Facebook

- 13. To secretly communicate a secret coding system is used. According to this system a message is first converted to a different code such that a letter in a word is replaced by the second letter following it in the English Alphabet. Using this system how will the word "KINGDOM" be converted and sent?
 - A LJOHEPN
 - B MKPIFQO
 - C IGLEBMK
 - D DOMKING
- 14. Which of the following is not associated with Bhutan's democratic set-up?
 - A National Council
 - B National Assembly
 - C Parliament
 - D Royal Advisory Council
- 15. Deki prefers Economics to Maths, English to Dzongkha, and Political Science to History. If she prefers Maths to History, and Dzongkha to Maths, which is Deki's least preferred subject?
 - A History
 - B Maths
 - C Dzongkha
 - D Economics
- 16. Determine the next figure from the sequence:

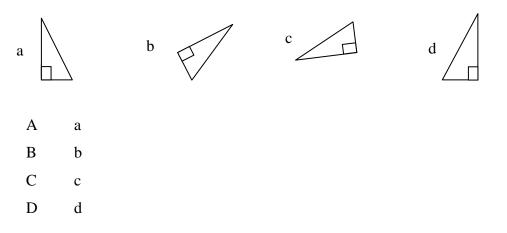


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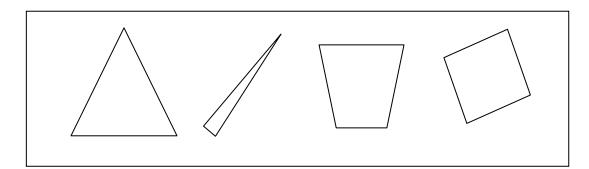
17. Pick the odd one.



18. The day before yesterday was Saturday. What day will it be the day after tomorrow?

- A Tuesday
- B Wednesday
- C Thursday
- D Friday
- 19. Sangay had 51 hens in his poultry farm. All but 11 died. How many hens does he have now?
 - A 10
 - B 11
 - C 21
 - D 40

Use the following figure to answer question 20.



- 20. How many triangles do you identify?
 - A one
 - B two
 - C three
 - D four

21. Which of the following words does NOT have the same meaning as others?

- A rich
- B wealthy
- C affluent
- D influential
- 22. Sonam is your father's mother's grandson's daughter. Therefore, Sonam is your
 - A niece
 - B sister
 - C uncle
 - D brother
- 23. Which country best fits the following list?

Belgium, Japan, Monaco, Netherlands, United Kingdom

- A America
- B Bhutan
- C China
- D India

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24. Choose the most meaningful sequence for the following words.

25. In their class, Chimi, Pema, Karma, Dorji and Sonam are sitting on a bench. Chimi is sitting next to Pema, Karma is sitting next to Dorji. Dorji is not sitting with Sonam. If Chimi and Sonam sit on either end of the bench where does Dorji sit?

- A between Pema and Dorji
- B between Dorji and Sonam
- C between Pema and Karma
- D between Karma and Sonam

SECTION II BASIC DATA INTERPRETATION

This section consists of 25 multiple-choice questions. Answer all the questions. Each question has fouroptional responses (A, B, C, D). Choose the correct response. $(25 \times 1 = 25 \text{ Marks})$

Use the following table to answer questions 26, 27 and 28.

Subject-wise Pass % for 5 years									
	2008	2009	2010	2011	2012				
Mathematics	70%	75%	77%	82%	85%				
Science	80%	81%	82%	84%	85%				
English	77%	85%	75%	88%	82%				
Dzongkha	80%	81%	80%	80%	82%				
History	70%	80%	76%	83%	90%				
Geography	87%	85%	81%	78%	75%				

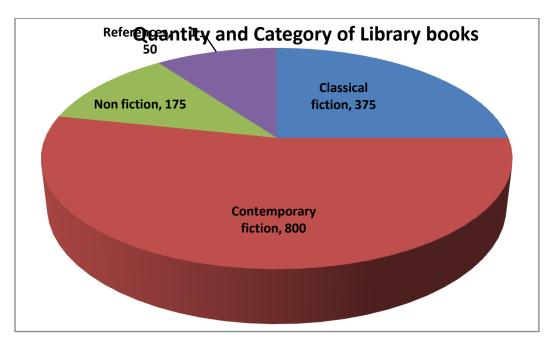
- 26. The most consistent and marked improvement over the years is observed in
 - A History.
 - B Dzongkha.
 - C Geography.
 - D Mathematics.
- 27. The least change in performance over the years is observed in
 - A History.
 - B Science.
 - C Dzongkha.
 - D Mathematics.
- 28. The subject in which performance has been consistently declining is
 - A History.
 - B Dzongkha.
 - C Geography.
 - D Mathematics.

Use the following table to answer question 29.

Mathematics Test Scores of Class VI Girls and Boys															
Girls	45	53	54	55	56	66	67	67	69	73	76	78	82	89	90
Boys	45	46	49	56	57	59	63	63	66	69	72	74	77	88	91

- 29. Based on the test scores, the mean scores for Class VI girls and boys are
 - A 67 and 63 respectively.
 - B 68 and 65 respectively.
 - C 90 and 91 respectively.
 - D 45 for both girls and boys.

Use the following figure to answer questions 30 and 31.



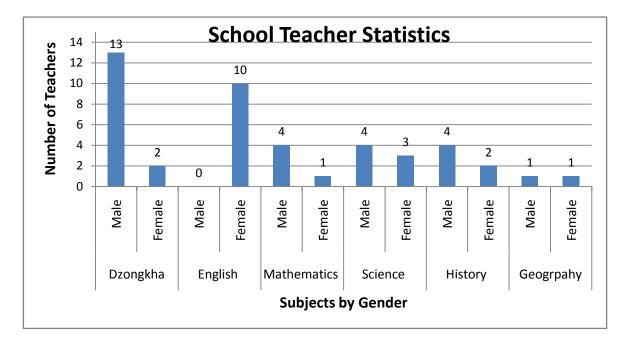
30. What portion of the total number of books does the classical fiction genre account for?

- A 1/2
- B 1/3
- C 1/4
- D 1/5

31. With reference to the above figure, which of the following statements is NOT correct?

- A Reference books are not important in a library.
- B Contemporary fiction has the largest collection in the library.

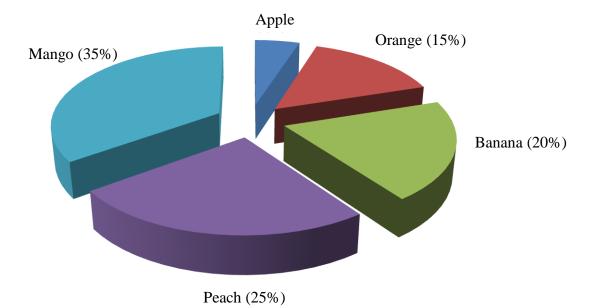
- C There are more books on non-fiction than books for reference.
- D The collection of books is skewed towards Contemporary fiction.



Use the following figure to answer questions 32, 33 and 34.

- 32. In which subject is the gender ratio equal?
 - A Dzongkha
 - **B** Mathematics
 - C History
 - D Geography
- 33. The total number of teachers in the school is how many times the number of Mathematics teachers?
 - A 3
 - B 5
 - C 9
 - D 12
- 34. What is the ratio of Geography teachers to English teachers?
 - A 1:2
 - B 2:3
 - C 1:5
 - D 1:10

The pie chart below depicts the quantity of fruits a farmer harvested from her orchard. Answer questions 35 to 38 based on this information.

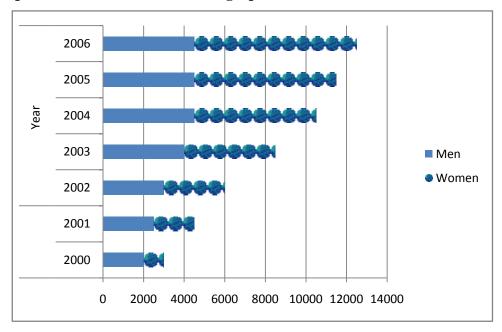


- 35. Which fruit did the farmer harvest the least in quantity?
 - A Peach
 - B Apple
 - C Mango
 - D Orange
- 36. If 50% of the total quantity of fruits harvested was 100 Kg, how many Kg of apples did she harvest?
 - A 5 Kg
 - B 10 Kg
 - C 15 Kg
 - D 20 Kg
- 37. If the price of a kilo of apples is twice that of a kilo of oranges, which one will fetch her more money?
 - A Selling apples
 - B Selling oranges
 - C She will make same amount of money
 - D Cannot be determined

38. What percentage is the quantity of bananas in terms of the quantity of peaches?

- A 20%
- B 25%
- C 80%
- D 90%

The graph below shows the population (men and women) of a village in country Y. Answer questions 39 to 42 based on the graph.



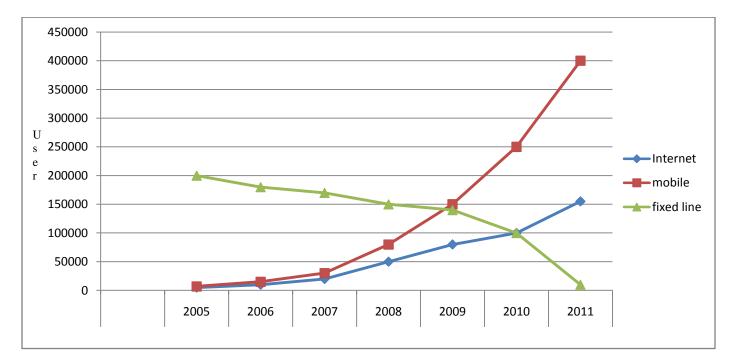
- 39. In which year was the number of men and the number of women equal or closest to each other?
 - A 2000
 - B 2001
 - C 2002
 - D 2006

40. Which statement is true with respect to the population of men in the village?

- A The number of men is ever increasing
- B The number of men is decreasing
- C The number of men has shown steady growth from year 2000 to 2006
- D The number of men has shown little or no grown since 2004.

- 41. Which statement is true with respect to the population of women in the village?
 - A The number of women is ever increasing.
 - B The number of women is decreasing.
 - C The number of women has shown no growth from year 2000 to 2006.
 - D The number of women has shown little or no grown since 2004.
- 42. The percentage of population of men in terms of the population of women in 2006 is roughly
 - A 56%
 - B 30%
 - C 10%
 - D 80%

The graph below shows the growth of users of fixed line, mobile and internet services in country Z. Use the line graph to answer questions 43 to 46.



- 43. Which is the service with the fastest growing user base?
 - A Fixed line
 - B Mobile
 - C Internet
 - D Internet and Mobile

- 44. In which year did the number of mobile users overtake the number of fixed line users?
 - A 2009
 - B 2010
 - C 2011
 - D 2008

45. Looking at the trends, which service would you expect to disappear soon?

- A Mobile
- B Internet
- C Fixed line
- D Internet and Mobile
- 46. Which service has negative growth rate in its user number?
 - A Mobile
 - B Internet
 - C Fixed line
 - D Internet and Mobile

The table below contains marks obtained by a group of students in their mid-term examination. Use the data in the table to answer questions 47 to 50.

	Marks Obtained								
Student	Maths	English	Physics	Chemistry	Biology	Economics	Computer		
Pema	90	50	90	60	70	80	90		
Tashi	100	80	80	70	80	70	80		
Deki	90	60	70	60	85	70	90		
Lhadon	80	65	80	70	60	60	80		
Sonam	80	65	85	80	50	90	80		
Seldon	70	75	85	90	40	80	80		

- 47. If three best scores are taken for each student to determine the topper, who scores the highest from the following students?
 - A Pema
 - B Deki
 - C Seldon
 - D Sonam

- 48. If three best scores are taken for each subject, which one of the following subjects has the students performed the best?
 - A Economics
 - B Biology
 - C Physics
 - D Maths
- 49. How many students have scored at least 60 marks in all subjects?
 - A 1
 B 2
 C 3
 D 4
- 50. If all marks are taken into consideration, which one of the following students obtains the minimum average score?
 - A Pema
 - B Deki
 - C Lhadon
 - D Sonam

SECTION III 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 pass percentage of your school stands at 91% with 455 students passing the annual examinations. How many students in your school would have to pass to raise the pass percentage to 95%?
 - A 20 students
 - B 25 students
 - C 50 students
 - D 55 students
- 52. In your school, Dzongkha is taught in the first period while History is taught in the fifth period. English is taught between History and Science. Science is taught before history but immediately after Mathematics. As a Science teacher, you teach during the
 - A 2^{nd} period.
 - B 3^{rd} period.
 - C 4^{th} period.
 - D 5^{th} period.
- 53. In your school, the first period starts at 9:00 am and the school ends at 4:00 pm which includes 10 minutes class cleaning time. There is a morning and evening break for 10 minutes each and a 40 minute lunch break. How long will each class period be if you have to plan for 7 periods a day?
 - A 40 minutes
 - B 45 minutes
 - C 50 minutes
 - D 55 minutes
- 54. Unscramble the letters HYROPGAEG to get the name of
 - A a country
 - B a subject
 - C a philosopher
 - D an animal

- 55. Sonam's age is one third the age of his mother and half the age of his brother Dorji. Together their age totals to 66. How old is Sonam?
 - A 11
 B 13
 C 15
 D 20
- 56. Two different shops, X and Y have special offers on the same brand of jackets.

Shop X	Shop Y
Price of 1 jacket Nu. 500/-	Price of 1 jacket Nu. 500/-
Buy 4 and get one free	Buy 2 and get one at half the price

After studying the offers given above, it follows that in terms of value for money per jacket:

- A the offer made by Shop X is better for buyers.
- B the offer made by Shop Y is better for buyers.
- C both the offers are the same for buyers.
- D both the offers intend to cheat buyers.
- 57. Palden spends a total of three hours of his time every day walking to school in the morning and back home in the evening. If he has to be in school by 8:30 am and the time he takes to travel is the same both ways, at what time should he leave home?
 - A 5:30 am
 - B 6:30 am
 - C 7:00 am
 - D 7:30 am
- 58. Your student is writing a letter of invitation. Which of the following words would you recommend for him to replace the underlined word in the following sentence?

'The programme will begin at 9:00 am'

- A seize
- B starts
- C begun
- D commence

- 59. You have 36 students in your class. You have planned for them to work in groups of equal numbers. 6 of your students are unwell and cannot participate. How many groups can you get?
 - A 2 groups of 20
 - B 3 groups of 10
 - C 7 groups of 5
 - D 10 groups of 4
- 60. $96 \div (4 \times 3) + 8 \div 2 2 =$
 - A 10
 - B 12
 - C 6
 - D 0
- 61. The marks of four students (Karma, Deki, Sonam and Tashi) in an examination were expressed in a mix of fractions and percentages. Karma's score was 65%, Deki's score was $\frac{3}{4}$, Sonam's was $\frac{7}{10}$ and Tashi's was 70%. Who scored the maximum?
 - A Sonam
 - B Karma
 - C Tashi
 - D Deki

62.	Which	is the greatest?	$\frac{200}{102}$	or	$\frac{200}{101}$	or	$\frac{200}{103}$	or	$\frac{200}{104}$
	А	200 102							
	В	200 101							
	С	200 103							
	D	200 104							

- 63. How many grams are there in $10\frac{1}{5}$ Kg?
 - A 10020
 - B 10202
 - C 10200
 - D 12000

Use the data for Questions 64 to 66.

The scores obtained by students in a subject test are given in the table below:

Students' Scores	Frequency
40	2
45	4
50	6
60	10
70	2
80	1

- 64. What is the total number of students?
 - A 20
 - B 25
 - C 30
 - D 35

65. What is the average score to the nearest unit?

- A 53
- B 54
- C 55
- D 58

66. How many students scored more than the average?

- A 3
- B 10
- C 12
- D 13

67. There are 40 boys and 60 girls in a class. What is the probability of a girl topping the class?

 $A \qquad \frac{40}{100}$ $B \qquad \frac{60}{100}$

- 40 60 С
- 60 40 D

A student throws a six sided die twice. What is the probability of getting two 6's? 68.

69. Two numbers are in the ratio 5:4 and the difference is 10. What is the larger number?

- 30 Α
- В 40
- С 50
- D 60

If the ratio of A:B is 2:7 and the ratio of B:C is 21:6, what is the ratio of A:C? 70.

- Α 1:1
- В 2:6
- С 7:21
- 1:3 D

71. If 2x + y = 5 then 4x + 2y is equal to

- А 5
- 8 В
- С 9
- 10 D

72. If
$$\frac{y}{x} = \frac{2}{5}$$
 then $\frac{x^2}{y^2}$ is equal to
A $\frac{4}{25}$
B $\frac{2}{5}$

- 25 4 С <u>5</u> 2
- D
- 5 workers take 1 hour to dig a trench. How long will 12 people take to dig the same trench 73. of the same type?
 - Α 20 minutes
 - В 25 minutes
 - С 65 minutes
 - D 70 minutes
- 74. In a class 15 students like Maths, 20 students like English and 10 students like Dzongkha. 5 students like all three subjects. If there are 50 students in the class, how many students like none of the three subjects?
 - А 20
 - В 15
 - С 10
 - D 5
- 75. Which one of the following numbers is the largest?
 - $(2+2+2)^2$ А
 - $((2+2)^2)^2$ В
 - C $(2 \times 2 \times 2)^2$
 - D $2 + 2^2 + (2^2)^2$

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SECTION IV 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. Whose signature can be seen on the Ngultrum today?
 - A Governor of the Royal Monetary Authority
 - B Managing Director of the Bank of Bhutan
 - C His Majesty the Fifth Druk Gyalpo
 - D Finance Minister
- 77. "Happiness is a place" is the catchphrase of
 - A National Council of Bhutan.
 - B Tourism Council of Bhutan.
 - C Royal Civil Service Commission.
 - D Gross National Happiness Commission.
- 78. Who best illustrated Classical Conditioning under the learning theory of Behaviourism using dogs?
 - A B. F. Skinner
 - B Edward Thorndike
 - C Ivan Pavlov
 - D John Dewey
- 79. Who among the following was the dedicated teacher of a differently-abled student?
 - A Confucius
 - B Anne Sullivan
 - C Albert Einstein
 - D Maya Angelou
- 80. Who wrote the book 'As I Am, So is My Nation'?
 - A Dasho Sonam Kinga
 - B Dasho Karma Ura
 - C Lyonpo Om Pradhan
 - D Lyonpo Thakur S. Powdyel

- 81. Where will the 2016 Summer Olympics be held?
 - A Chicago, United States
 - B Madrid, Spain
 - C Rio de Janeiro, Brazil
 - D Tokyo, Japan
- 82. Who is the main co-founder of Facebook?
 - A Jack Dorsey
 - B Mark Zuckerberg
 - C Sabeer Bhatia
 - D Steve Jobs
- 83. Who is the current President of India?
 - A Kisan Baburao Hazare
 - B Manmohan Singh
 - C Pranab Mukherjee
 - D Pratibha Patil
- 84. Who wrote the book 'The Courage to Teach'? \langle
 - A Deepak Chopra
 - B Donald H. Graves
 - C Parker J. Palmer
 - D Samuel L. Blumenfeld
- 85. Identify this person.



- A Takanobu Ito, President and Chief Executive of Honda Motor Company.
- B Ban Ki- moon, Secretary General of the United Nations.
- C Hu Jintao, President of the Peoples' Republic of China.
- D Mo Yan, winner of Nobel Prize in Literature, 2012.

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- 86. Who is the head of Government in Bhutan?
 - A His Majesty the King
 - B The Prime Minister
 - C The Chief Justice
 - D The Speaker of the Parliament
- 87. Under which Article of the Constitution of the Kingdom of Bhutan ensures free education to all children of school going age up to tenth standard?
 - A Article 6 on Citizenship
 - B Article 7 on Fundamental Rights
 - C Article 8 on Fundamental Duties
 - D Article 9 on Principles of State Policy
- 88. In 2012, Druk Air started flights to a new destination. Where was it?
 - A Bangkok
 - B Mumbai
 - C Singapore
 - D Hongkong
- 89. In 2012, Bhutan contested for a seat in a global/international forum. Which was it?
 - A UN General Assembly seat
 - B Permanent seat in the UN Security Council
 - C Non-Permanent seat in the UN Security Council
 - D Seat in the UNESCO
- 90. The Royal Government of Bhutan engaged a global consultancy firm to accelerate Bhutan's socio economic development (also called the ABSD initiative) in the 10th Five Year Plan. Which firm was it?
 - A McKinsey
 - B Infosys
 - C Wipro
 - D Ernst and Young

- 91. Whenever the National Assembly is dissolved, an Interim Government is appointed. Who appoints the Interim Government:
 - A His Majesty the King
 - B The Prime Minister
 - C Parliament
 - D Election Commission of Bhutan
- 92. From July of 2013, Bhutan will start:
 - A 10th Five Year Plan
 - B 11th Five Year Plan
 - C 12th Five Year Plan
 - D 13th Five Year Plan
- 93. Which award has the present Minister of Education received?
 - A Gusi Peace Prize 2011 for Education
 - B World Education Congress Award 2012
 - C UNDP Education Award
 - D SAARC Education Award
- 94. In which Dzongkhag is the Ugyen Wangchuck Institute for Conservation and Environment located?
 - A Thimphu
 - B Punakha
 - C Wangdue Phodrang
 - D Bumthang
- 95. Which one of the following shooting events did Kunzang Choden represent Bhutan in London Summer Olympics 2012?
 - A Women's 10m Air Rifle
 - B Women's 10m Air Pistol
 - C Women's 25m Pistol
 - D Women's 50m Rifle 3 Positions

- 96. The oral transmission and empowerment presided over by His Holiness the Je Khenpo in Punakha, which started in December 2012 is mainly on
 - A Avalokiteshvara
 - B Chakrasamvara
 - C Manjushri
 - D Vajrasattva
- 97. Including the Paro Airport, how many airports does Bhutan have?
 - A 2
 - B 3
 - C 4
 - D 5

98. Which Asian country elected its first female president in December 2012?

- A North Korea
- B South Korea
- C Japan
- D China
- 99. Who was President Obama's contender in the US presidential elections in 2012?
 - A Hillary Clinton
 - B Joe Biden
 - C John Mc Cain
 - D Mitt Romney
- 100. The Nobel Prize Winner in Literature in 2012 was from
 - A United States of America.
 - B Australia.
 - C England.
 - D China.

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