

KETT- No. \_\_\_\_\_

## KET SCHOLARSHIP TEST 2017

(ಕೆಟ ಸ್ಕಾಲರ್‌ಶಿಪ್ ಟೆಸ್ಟ್ ೨೦೧೭)



TEST SET:

A

Exam Duration: 2 hours 30 minutes

Date: December - 18, 2016(Sunday)

Please read the following instructions carefully.

1. No candidate is allowed to appear KET TEST -2018 without KET TEST card.
2. All the candidates should maintain silence during examination.
3. No electronic devices (mobile, scientific calculator etc.) are allowed to use during examination.
4. All the candidates should use ball point/fountain pen for answering questions.
5. All the questions are objective type. And for each question, there are four alternative answers given. Choose the correct one. You should write your KET Test no. on this question paper.
6. The answer sheet will be supplied separately. The respective correct answer should be ticked in the square box.
7. The total number of questions is 100. Each question carries 4 marks, and 1 (one) mark will be deducted for each wrong answer.
8. There are 10 pages in the question set.
9. In case of any discrepancies the decision of KET will be final.

**All the best for your examination**

(Read the following passages and answer the following questions i.e. Q1 to 10)

Manipur was an independent kingdom before the colonization by the British Empire. The extent of the so-called Manipur border reached Kabow Valley in the east, the Chinese territory in the north, and the Ahom kingdom of Assam in the northwest. This is challenged by the Nagas who inhabit the hills who say they were never under the rule of the Meitei kings, and that they were an independent nation.

The literature also shows that the name of the present state, Manipur, was given to this land after the declaration of Hinduism as the state religion. It was during the reign of Pamheiba whose Hindu name is Garibniwaz, in the beginning of the eighteenth century that the name 'Manipur' came into being. In the later ages of Konna (LangbA. Chak, it was popularly known as Kanglei Pungmayol, Kangleipak, and Meitreibak. The present Manipur state has many other indigenous names, each indicating its unique meaning. To some, it is known as "Flower on the Lofty Heights", and to others it is known as "Kashmir of the Eastern India". It is also known as Sana Leipak, which means land of jewels. This is because the land is fertile and rich in its tradition and culture. The other name for Manipur is Kangleipak meaning "Land of the Kang".

It is difficult for the Meiteis to claim any racial purity due to their long stories of migration and a series of invasion by the Aryans, Shans, and Myanmars. However, it is beyond doubt that they originally belonged to the Mongoloid race. Another group of Meitei people, who are the Brahmins, are believed to have come from Bengal with the coming of Hindu Vaishnavism during the seventeenth century. They are altogether a different people group, probably belonging to the Aryan race.

[http://e-pao.net/epSubPageExtractor.asp?src=manipur.Ethnic Races Manipur.Origin of the Meiteis I](http://e-pao.net/epSubPageExtractor.asp?src=manipur.Ethnic%20Races%20Manipur.Origin%20of%20the%20Meiteis%20I)

1. Garbaniwaz was

- A. the name of Pamheiba's father  
B. another name of Pamheiba called by British  
C. the Hindu name of Pamheiba  
D. another name of Manipur

2. Which one of the following is not a name of Manipur indicating a unique meaning:

- A. Sanaleipak B. Kangleipak C. Kanglei Pungmayol D. Kashmir of the Eastern India.

3. Nagas say tha

- A. they were a part of Manipur  
B. they were a free nation  
C. they inhabited in Ahom  
D. they were under the rule of the Meitei.

4. Meiteis are difficult to claim any racial purity because

- A. they were belong to Mongoloid race nor Aryan  
B. there were a series of invasions of Shans.  
C. they belong to Aryans, Shans, Myanmars.  
D there were migrations and invasions in history.

5. Brahmins

- A. are probably same race as Meitei. B. are probably another group of Meitei.  
C. probably belong to Mongoloid race. D. probably belong to Aryan race.

Mother Nature is a huge classroom that offers many lessons for those who take the time to reflect and discover. Learn about the many things widely used today that were inspired by the way things work in the natural world. Human beings have been deriving benefits from nature to fulfil their needs in a number of ways which serve as a source of inspiration, motivation, recreation, education, research, food and much more. Scientists and inventors study characteristics of things in nature and come up amazing technologies and products invented as a result of studying nature.

Studying the whales, scientists came up with an idea to invent the submarine, so as to sail under the vast oceans. The design of the submarines is based on the shape of whales. And like whales, submarines also their sonar system to trace food and avoid hurdles.

Scientists studied birds and invented bullet trains which have beak-like front fashioned like that of the kingfisher. They observed that the beaked front in birds help them minimise air pressure when they fly or plunge into water, just like the kingfisher.

Termites build earthen mounds which are well-ventilated, having a lot of slits and holes for aeration purposes. Besides high external temperature, the mounds have moderate temperature inside. Taking this idea, people have constructed building, such as the East gate Centre in Zimbabwe, where air convection with interface of storing and radiating heat provide an air conditioning system requiring only ten per cent of energy usage.

<http://www.dawn.com/news/1297127/nature-inspired-discoveries-and-inventions>)

6. Human beings have been deriving benefits from nature

- A. to become inventors                      B. to fulfil human requirements  
C. to teach in the classroom              D. none of the above

7. “Mother Nature is a huge classroom” where the students are

- A. those who study natural science              B. those who are school going  
C. those who take time to reflect and discover      D. all the human beings

8. Scientists and inventors come up with amazing technologies and products

- A. by studying in big universities      B. as a result of studying characteristics of nature  
C. by researches                              D. none of the above

9. Besides high external temperature, termites have moderate temperature inside because

- A. they have sonar system      B. moisture is in the soil      C. they have mounds  
D they are well-ventilated, having a lot of slits and holes for aeration purposes.

10. Scientists invented bullet trains by imitating

- A. wings of the birds                              B. grip of the birds’ legs  
C. by its beaked front minimising air pressure      D. All the above.

11. Which of the followings is not a principle of Sustainable Development?

- A. conservation of water                              B. Love and care for all forms of life.  
C. to minimise the depletion of natural resources.      D. to increase the use of chemicals in agriculture.

12. Disinfection of water should be done through

- A. Chlorination      B. Boiling                      C. both                              D. neither of them

13. Which one is not the environmental influence of natural vegetation?

- A. rainfall                      B. animal species              C. Temperature                      D. cultural forces

14. Minerals are

- A. biotic resources      B. abiotic resources      C. ubiquitous resources      D. renewable resources

15. ‘Liberica’ is a variety of

- A. coffee                      B. Tea                              C. Cotton                              D. Jute

16. Farming in Manipur valley is purely of subsistence nature because

- A. the field is not well irrigated.                              B. it depends on monsoon rain  
C. the cropping pattern is typical of an underdeveloped agricultural economy.      D. all the above.



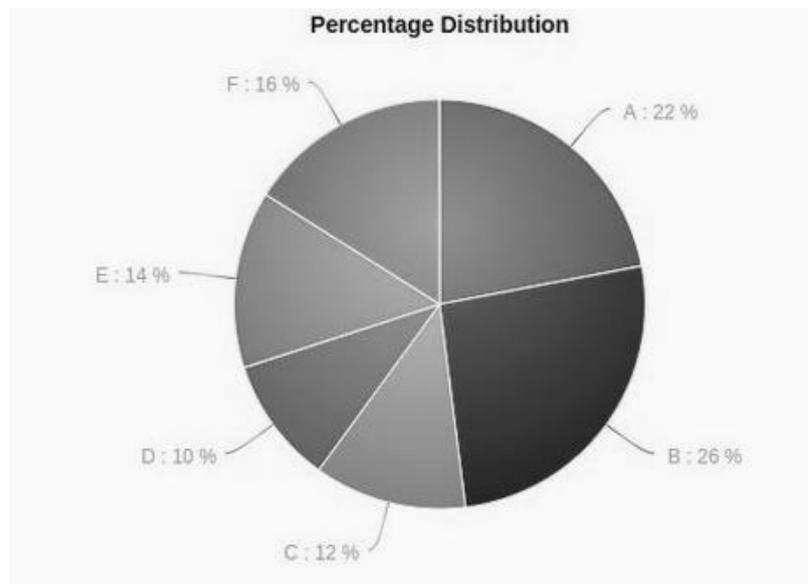
28. "Chauri Chaura incident" is related to-
- A. Jallian Walla Bagh Massacre  
 B. Khilafat Movement  
 C. Non- Cooperation Movement  
 D. Salt Law Violation
29. Indian National Congress was a rename of
- A. Indian National Union  
 B. East India Association  
 C. British India Association  
 D. Bharat National Congress.
30. The principles of Panshsheel or peaceful coexistence was formally enunciated between
- A. India and Burma    B. India and China    C. India and Bhutan    D. India and Nepal
31. The upper layer of the earth is called
- A. Tilling    B. Leveling    C. Soil    D. Manuring
32. The method used to preserve milk and its products is called
- A. Freezing    B. Pasteurization    C. Drying    D. Radiation
33. The simplest and easiest methods for preservation of food is
- A. Sun drying    B. Packing    C. Using common salt    D. Using chemical preservatives
34. Basic structural and functional unit of life is
- A. Cell    B. Cytoplasm    C. Nucleus    D. Cell membrane
35. Functions of epithelial tissue include
- A. Providing structural support  
 B. Protecting exposed surface  
 C. Storing fat  
 D. Conducting materials
36. In binary fission a mature organism divides into
- A. Four cell    B. Multiple cell    C. Single cell    D. Two cell
37. Fertilization formed as a result of
- A. Zygote    B. Foetus    C. Placenta    D. Amniotic sac
38. Illegal hunting of animals for food and other things is called
- A. Migration    B. Poaching    C. Captive breeding    D. Species
39. Introduction of a small amount disease causing microbes into the human/animal body to prevent specific disease
- A. Vaccination    B. Injection    C. Vector    D. Immunization
40. Chemical messenger released from an endocrine gland
- A. Hormone    B. Pancreas    C. Pituitary hormone    D. Adrenal hormone
41. Who is the current governor of Reserve Bank of India?
- A. Raghuram Rajan    B. Urjit R. Patel    C. N. S. Viswanathan    D. Arun Jaitley
42. P. V. Sindhu is associated with which sports?
- A. Lawn Tennis    B. Wrestling    C. Badminton    D. Shooting
43. After the recent demonetization of 500 and 1000 notes which denominations of new notes were introduced.
- i. 100    ii. 500    iii. 1000    iv. 2000
- A. iv only    B. ii & iv    C. iii & iv    D. All of the above

44. Who is the current Governor of Manipur?  
 A. Ved Marwah      B. Okram Ibobi Singh      C. Vinod Duggal      D. Najma Heptulla
45. Which among the following sportspersons from Manipur represented India at Rio Olympics 2016?  
 A. Sushila Chanu Pukhrambam      B. M. C. May Kom  
 C. Devendro Singh      D. Sanamacha Chanu
46. What is the name of the proposed Capital City of Andhra Pradesh?  
 A. Vijyawada      B. Guntur      C. Amaravati      D. Secunderabad
47. Y. Sanathoi Devi is associated with which sports?  
 A. Badminton      B. Hockey      C. Archery      D. Wushu
48. The film “The Man Who Knew Infinity” was based on life of which of the following personality?  
 A. Srinivasa Ramanujan      B. Dev Patel      C. Stephen Hawking      D. Aryabhata
49. Which is the largest state in India by Area?  
 A. Rajasthan      B. Uttar Pradesh      C. Maharashtra      D. Madhya Pradesh
50. Which of the following states have become Open Defecation Free (ODF) states in India?  
 A. Kerala, Sikkim and Arunachal Pradesh      B. Kerala, Himachal Pradesh and Sikkim  
 C. Himachal Pradesh, Kerala and Tripura      D. Sikkim, Himachal Pradesh and Assam
51. The court \_\_\_\_\_ cognizance of the criminal’s words.  
 A. took      B. made      C. gave      D. allowed
52. Change the voice in the following sentence  
 “He teaches us Grammar.”  
 A. Grammar is taught to us by him      B. We are being taught Grammar by him  
 C. Grammar is being taught us by him      D. We are taught Grammar by him
53. Change from direct to indirect speech  
 The Manager said, "Well, what can I do for you?"  
 A. The manager asked what he could do fo him.  
 B. The Manager wondered what he could do for him.  
 C. The Manager wanted to know what he could do for him.  
 D. The Manager said that he couldn't do anything for him.
54. Choose the correctly spelt word.  
 A. Corespondent      B. Commandent      C. Superintendent      D. Attendent
55. Synonym of Successive is  
 A. Rapid      B. Victorious      C. Beneficient      D. Consecutive
56. Choose the appropriate word for the phrase “A person who believes in the total abolition of war”  
 A. Socialist      B. Communist      C. Fascist      D. Pacifist
57. Antonym of Extinct is  
 A. Recent      B. Distinct      C. Alive      D. Ancient
58. Fill in the blank.  
 No one can say that hospitality is a ..... which the natives of this island do not have.  
 A. Tradition      B. Practice      C. Virtue      D. Religion
59. Choose an option to improve the underlined phrase  
 Too little is known by this time about possible side effects of the drugs.  
 A. presently      B. beforehand      C. in the end      D. No improvement needed
60. Choose the option in which the usage of the word “near” is inappropriate.  
 A. I got there just after you left – a near miss!      B. She and her near friend left early.

- C. The war led to a near doubling of prices. D. They came near to tears seeing the plight of the victims.
61. Carefulness: Accident  
choose similar relation  
A. Doctor: Disease B. Medicine: Disease C. Sanitation: Disease D. Treatment: Disease
62. Choose the number which is different from others in the group.  
A. 49 B. 63 C. 77 D. 81
63. Pointing out to a woman, Deepak said, "She is the daughter of the woman who is the mother of the husband of my mother." Who is the woman to Deepak?  
A. Aunt B. Grand-daughter C. Sister D. Sister-in-law
64. Which word does NOT belong with the others?  
A. Spade B. Diamond C. Brick D. Club
65. If 'Nitco sco tingo' stands for 'Softer than flowers', 'Tingo rho mst' stands for 'Sweet flower fragrance', and 'Mst sco tmp' stands for 'Sweet than smile', what would 'Fragrance' stand for?  
A. Rho B. Mst C. Tmp D. Sco

Directions: Q66 & 67

The following pie chart provides information about the revenue generated by six companies A, B, C, D, E and F as a percentage of the total paper market (in Rs.) in the year 2007. These are the only six companies producing paper in the market.

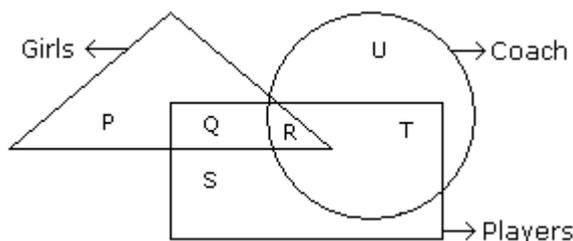


66. If the revenue generated by company D is Rs. 650 crores, then find the revenue generated by company B.  
A. Rs 1840 B. Rs 1690 C. Rs 5602 D. Rs 4721
67. By what percentage the revenue generated by company F more than the revenue generated by company D?  
A. 48% B. 50% C. 60% D. 65%
68. X can do a piece of work in 40 days. He works at it for 8 days and then Y finished it in 16 days. How long will they together take to complete the work?  
A. 40/3 days B. 56/3 days C. 28 days D. 30 days

69. The high school math department needs to appoint a new chairperson, which will be based on seniority. Ms. West has less seniority than Mr. Temple, but more than Ms. Brody. Mr. Rhodes has more seniority than Ms. West, but less than Mr. Temple. Mr. Temple doesn't want the job. Who will be the new math department chairperson?

- A. Mr. Rhodes      B. Mr. Temple      C. Mr. Brody      D. Ms. West

70. In the following figure triangle represents 'girls', square players and circle-coach. Which part of the diagram represents the girls who are player but not coach?



- A. P      B. Q      C. R      D. S

71. The sum of all interior angles of a convex polygon of 7 sides is

- A.  $360^0$       B.  $540^0$       C.  $630^0$       D.  $900^0$

Direction: Numbers 1 to 10 written on 10 different slips of paper (one number on one slip) are kept in a box and mixed well. One slip is chosen from the box without looking at it. Answers the questions 72 and 73 based on the above situation.

72. What is the probability of getting a number less than 6?

- A. 1      B. 1/2      C. 1/6      D. 1/10

73. What is the probability of getting a prime number?

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

74. Simplify:  $(\frac{a^4b^{-5}}{a^2b^{-3}})^{-3}$

- A.  $a^{-5}b^5$       B.  $a^2b^5$       C.  $a^{-6}b^6$       D.  $a^{-6}b^5$

75. Expand:  $(\sqrt{3}x - 2y)^3$

- A.  $3\sqrt{3}x^3 - 18x^2y + \sqrt{3}xy^2 - 8y^3$       B.  $3\sqrt{3}x^3 - 18x^2y + 12\sqrt{3}xy^2 - 8y^3$   
 C.  $3\sqrt{3}x^3 - 12x^2y + 12\sqrt{3}xy^2 - 8y^3$       D.  $3\sqrt{3}x^3 - 18xy^2 + 12\sqrt{3}x^2y - 8y^3$

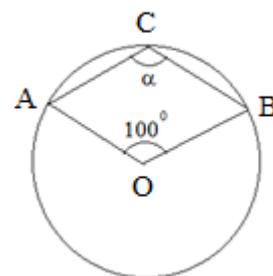
76. Factorise:  $15x^2 - 26x + 8$

- A.  $(3x - 4)(5x - 2)$       B.  $(2x - 4)(5x - 2)$   
 C.  $(3x - 2)(5x - 4)$       D.  $(2x - 2)(5x - 4)$

77. Find  $\angle\alpha$ , in the adjacent figure.

- A.  $160^0$       B.  $140^0$       C.  $210^0$       D.  $130^0$

78. If  $A = \{3, 5, 2, 7, 9, 1\}$  and  $B = \{1, 7, 3, 9, 4, 6\}$ , find  $A \cap B$ .



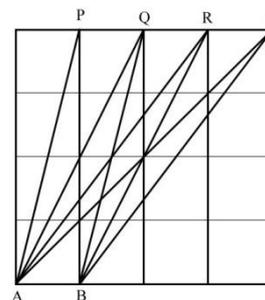
- A. {4,6}                      B. {4,5}                      C. {5,6}                      D. {5,2}

79. A six digit number  $\overline{A1998B}$  is divisible by 99. Find A and B.

- A. A = 2, B = 1      B. A = 1, B = 9                      C. A = 1, B = 8                      D. A = 7, B = 1

80. In the adjacent square, what is the sum of the angles  $\angle APB + \angle AQB + \angle ARB + \angle ASB$ ?

- A.  $60^\circ$                       B.  $30^\circ$                       C.  $100^\circ$                       D.  $45^\circ$



81. 2.7 g/cc is equal to

- A.  $2700 \text{ kg/m}^3$ .                      B.  $2700 \text{ g/m}^3$ .                      C.  $2700 \text{ kg/cc}$ .                      D.  $2700 \text{ g/ml}$ .

82. A solid cubic object is immersed in a water medium such that one face is parallel to ground level. The difference in the pressure between top and bottom surface is 9800 Pascal. Find the length of a side of the cube. Take  $g = 9.8 \text{ m. s}^{-2}$ ; density of water =  $1000 \text{ kg. m}^{-3}$

- A. 1 m                      B. 1 cm                      C. 100 cm                      D. 9.8 m

83. A constant force is applied on an object. Then

- A. Its velocity will change.                      B. Its velocity will increase.  
B. Its velocity will decrease.                      D. Its acceleration will increase.

84. If charge carried by an electron is  $= -1.6 \times 10^{-19} \text{ C}$ . Then an object cannot possess

- A.  $+8 \times 10^{-19} \text{ C}$       B.  $-8 \times 10^{-19} \text{ C}$       C.  $+1.6 \times 10^{-19} \text{ C}$       D.  $+3 \times 10^{-19} \text{ C}$

85. An object makes 1000 vibrations in 20 s and generates a wave. The frequency of the wave generated is-

- A. 50 Hz                      B. 0.02 Hz                      C. 2000 Hz                      D. 1020 Hz

86. A green color ball is floating on a water surface. A person who is inside the water will see the color of this red ball as

- A. Blue ball as the wavelength of light changing from medium to medium  
B. Green ball as the frequency of the light does not change when it travels in different medium  
C. Yellow ball as the speed of light changes from one medium to another  
D. Red ball as the refractive index of water is more than 1.

87. S.I. Unit of latent heat is-

- A.  $\text{J. kg}^{-1}$                       B.  $\text{J. kg}^{-1} \cdot \text{K}^{-1}$                       C.  $\text{J. g}^{-1} \cdot \text{K}^{-1}$                       D.  $\text{J. kg}^{-1} \cdot ^\circ\text{C}^{-1}$

88. Acceleration due to gravity on the Earth's and moon's surface are  $9.8 \text{ m. s}^{-2}$  and  $1.6 \text{ m. s}^{-2}$ . Mass of a baby on the surface of the earth is 10 kg. the mass of the baby on the surface of the moon is-

- A. 10 kg                      B. 98 kg                      C. 0.98 kg                      D. 980 kg

89. 1 Cal. is equal to

- A. 1 cal                      B. 100 cal                      C. 1000 cal                      D. 0.1 cal

90. An athlete is running in constant speed a circular track of diameter 200 m. He completes a round in 4 min. the displacement travelled by the athlete at the end of 1 min. from the starting is-

- A. 141.4 m                      B. 100 m                      C. 209.3 m                      D. 200 m

91. Deuterium  ${}^2_1\text{H}$  and tritium  ${}^3_1\text{H}$  are the isotopes of hydrogen.

- A. Deuterium has one electron more than tritium  
B. Deuterium has one neutron more than tritium  
C. Deuterium has one electron less than tritium

- D. Deuterium has one neutron less than tritium
92. Elements  $^{40}\text{Cl}$ ,  $^{40}\text{Ar}$ ,  $^{40}\text{K}$  and  $^{40}\text{Ca}$  are known as  
 A. Isobars      B. Isotopes      C. Isotones      D. Inert gas elements
93. Maximum number of electrons that can occupy in M electron shell is/are  
 A. 0      B. 2      C. 8      D. 18
94. How many electrons are there in one Copper cuprous atom  
 A. 29      B. 31      C. 27      D. 58
95. To have balanced the chemical reaction given below, the value of x and y will be  $2\text{Fe}_2\text{O}_3 + 3\text{C} \rightarrow 4\text{Fe} + x\text{CO}_y$   
 A.  $x = 2, y = 3$     B.  $x = 3, y = 2$     C.  $x = 6, y = 1$     D.  $x = 1, y = 6$
96. Melting of ice cubes is as an example of  
 A. Endothermic reaction    B. Exothermic reaction    C. Catalytic reaction    D. Photocatalytic reaction
97. Which of the following elements are non-metals  
 A. Chlorine      B. Aluminum      C. Uranium      D. Calcium
98. Select correct redox reaction from the followings  
 A.  $\text{F}_2 + 2\text{e}^- \rightarrow 2\text{F}^-$     B.  $\text{F}_2 \rightarrow 2\text{F}^- + 2\text{e}^-$     C.  $\text{H}_2 + 2\text{e}^- \rightarrow 2\text{H}^+$     D.  $\text{H}_2 \rightarrow 2\text{H}^+ + 2\text{e}^-$
99. Graphite, charcoal and diamond are the \_\_\_\_\_ of carbon.  
 A. Allotropes    B. Isotones      C. Isobars      D. Isotopes
100. Select the correct reactivity series  
 A.  $\text{Li} > \text{K} > \text{Ca} > \text{Na} > \text{Mg} > \text{Al} > \text{Mn} > \text{Zn}$     B.  $\text{Li} > \text{K} > \text{Ca} > \text{Na} > \text{Al} > \text{Mn} > \text{Zn} > \text{Mg}$   
 C.  $\text{Mg} > \text{Al} > \text{Mn} > \text{Zn} > \text{Li} > \text{K} > \text{Ca} > \text{Na}$     D.  $\text{Li} > \text{K} > \text{Ca} = \text{Na} > \text{Mg} > \text{Al} > \text{Mn} > \text{Zn}$