In the absence of an effective vaccine for dengue fever, Zika fever, chikungunya and other mosquito-borne diseases, researchers have developed genetic strategies to reduce mosquito populations. One such strategy involves the release into the wild of genetically modified (GM) mosquitoes that express a lethal gene — a strategy believed to have little impact on the overall DNA of wild populations of mosquitoes. The transfer of new genes from GM organisms to wild or domesticated non-GM populations is a key criticism of GM crops like soybean and corn. There are concerns that the introduction of GM genes into non-target species could have negative consequences for both human and environmental health.

Oxitec, a company that spun out of research at Oxford University in the early 2000s, developed and trademarked GM Friendly™ mosquitoes (also known as strain OX513A of Aedes aegypti). These male GM mosquitoes have what the company describes as a “self-limiting” gene, which means that when these so-called friendly mosquitoes’ mate, their offspring inherit the self-limiting gene which is supposed to prevent them surviving into adulthood. In theory, when these mosquitoes are released in high numbers, a dramatic reduction in the mosquito population should follow. According to research published by Oxitec researchers in 2015, field trials involving recurring releases of Friendly™ mosquitoes demonstrated a reduction of nearly 95 per cent of target populations in Brazil. In these field trials, experiments were not performed to assess whether GM mosquitoes might persist in the wild.

A recent study from the Powell lab at Yale University has since confirmed that some of the offspring of the GM mosquitoes didn’t succumb to the self-limiting lethal gene and survived to adulthood. They were able to breed with native mosquitoes and thereby introduce some of their genes into the wild population.

Meanwhile, the impact of mosquitoes carrying these new genes remains largely unknown. One significant worry is that a new breed of mosquito might emerge that is more difficult to control. These new genes could also potentially alter evolutionary pressures on viruses carried by mosquitoes, like dengue fever, in unpredictable ways. This includes potentially increasing their virulence or changing their host-insect interactions. These are hypothetical risks that have been raised by scientists, and reflect the need for further study.

71. Why are mosquitoes considered as one of the deadliest living creatures on earth?
(a) Capability to transmit life threatening diseases.
(b) Mosquito bites cause fatal reactions in human beings
(c) Mosquitoes cannot be killed easily
(d) Both (a) and (c)
(e) None of the above

72. What is one of the methods being developed to control population of mosquitoes?
(a) Spraying of pesticides using established procedures.
(b) Introduction of a lethal gene into wild populations of mosquitoes using genetically modified ones.
(c) Not letting any stagnant water build-up near homes
(d) Both (a) and (b)
(e) None of the above

73. What can be the potential side effect(s) of genetically modified mosquito offspring?
(a) Evolution of a breed of mosquitoes which are more difficult to control
(b) Increase in the severity of diseases being currently transmitted by mosquitoes.
(c) Change in host-insect interactions.
(d) Loss of natural populations of mosquitoes
(e) (a), (b) and (c)

74. Which of the statements can be considered as true with respect to the passage given?
(a) Field trials on Genetically modified mosquitoes showed reduction of 96% target populations.
(b) Oxitec trademarked the GM Friendly mosquitoes in 2015.
(c) The female GM mosquito has a self-limiting gene
(d) Both (a) and (b)
(e) None of the above
75. What is the desired effect of releasing GM mosquitoes containing the 'Self-limiting Gene'?
   (a) A substantial reduction in the population of mosquitoes.
   (b) Birth of mosquitoes without a biting mechanism
   (c) Decrease in the number of diseases caused due to mosquitoes
   (d) Increase in the number of male mosquitoes.
   (e) Both (b) and (c)

76. Which of the following word is similar to **deadliest** as mentioned in the passage given?
   (a) fatal
   (b) demeaning
   (c) fulfil
   (d) harmless
   (e) None of the above

77. Which of the statements can be considered as true with respect to the passage given??
   (a) GM mosquitoes are able to introduce some of their genes into the wild population.
   (b) Mosquitoes having GM genes have been thoroughly researched upon.
   (c) Oxitec released its friendly mosquitoes in Brazil
   (d) (a) and (c)
   (e) All of these

Directions (78-80): A word has been given in each question and has been used in the sentences given below. Identify the statements where the word has been used in a contextually and grammatically correct manner. If the word has been used correctly in all the statements, mark (e), "All of these", as your answer.

78. HOSTILE
   (i) He made **hostile** efficiency a key part of his budget plan.
   (ii) There has been a **hostile** reaction to the government's proposed tax increase.
   (iii) The security forces exercised great restraint by not responding to **hostile** attacks and threats.
   (a) Only (i)
   (b) Both (i) and (ii)
   (c) Both (ii) and (iii)
   (d) Only (iii)
   (e) All of these

79. VAGUE
   (i) The judges determined that the law was too **vague** to be fairly enforced.
   (ii) The merger of these two companies would **vague** the world's biggest accounting firm
   (iii) The president had a **vague** reception in Ohio this morning.
   (a) Only (i)
   (b) Both (i) and (ii)
   (c) Both (ii) and (iii)
   (d) Only (iii)
   (e) All of these

80. ESCALATE
   (i) The pedestrian was jaywalking when he **escalate** the busy street, walking straight into the path of an oncoming vehicle.
   (ii) We've tried to **escalate** the most likely problems, but it's impossible to be prepared for every eventuality.
   (iii) The decision to **escalate** UN involvement has been made in the hopes of a swift end to the hostilities.
   (a) Only (i)
   (b) Both (i) and (ii)
   (c) Both (ii) and (iii)
   (d) Only (iii)
   (e) All of these

Directions (81-85): In the following question, four sentences are given which may be grammatically and contextually incorrect. You need to find the one which has no error and mark that as your answer. If all the given sentences are incorrect then mark option (e) i.e. ‘all are incorrect’ as your answer.

81. (a) India's chocolate market is pegged at Rs.11,000 crore, of which premium chocolates can be sized anywhere among 10% and 15%.
   (b) South Korea reported 52 new case of coronavirus.
   (c) ITC has plans to work with cocoa farmers directly in future.
   (d) The company initially invested Rs. 100 crore to set up a greenfield chocolate manufacture facility in Haridwar.
   (e) All are incorrect

82. (a) Ratnakar Bank was rename as RBL Bank by the government.
   (b) The government expects all the mergers of public sector banks, which were announced in 2019, to become effective from April 1.
   (c) Analysts believe that lower gas prices would be bad with exploration.
   (d) The Central Drugs Standard Control Organisation will be regulate the medical devices now.
   (e) All are incorrect

83. (a) Mahindra Renewables will sell its entire stake in 3 subsidiaries to CLP India, a part of Hong Kong-based CLP Group, as nearly ₹340 crore.
   (b) The agreement will be signed to Doha city between Taliban representatives and U.S. special envoy Zalmay Khalilzad.
   (c) The U.S. intelligence community publicly concluded that Russia intervened in there security matters.
   (d) The injured animal was nursed back to health by the zookeeper and then released back into the wild.
   (e) All are incorrect
84. (a) English language have the potential to connect the world without any barriers  
(b) P.K. Sinha was appointed in the PMO when Nripendra Misra, the then Principal Secretary, resigns.  
(c) She drink the caramel liquid too fast and was soon too dizzy to stand.  
(d) You’re coming to the party, isn’t you?  
(e) All are incorrect

85. (a) Tamil Nadu is likely to get three textile parks and a technology research centre under schemes that the Union Ministry of Textiles is formulating.  
(b) What is the uses of a house if you haven’t got a tolerable planet to put it on?  
(c) You have brushed your teeth today?  
(d) Rahul had barely nothing to help the poor children.  
(e) All are incorrect

Directions (86-90): In the following questions, a sentence is divided into four parts consisting of a highlighted word in each part. Choose the option reflecting the word which is either misspelt or grammatically incorrect. If all the highlighted words are correct, choose option (e) i.e. “all are correct” as your answer choice.

86. The manager balanced (A) the strength (B) of his team against that of their opponent (C) and sighed. (D)  
(a) balanced (b) strength (c) opponent (d) sighed (e) All are correct

87. One evening Rohan prepared (A) a nice supper (B) and put it on low heat in the oven to keep it tepid (C) while his wife dressed. (D)  
(a) prepared (b) supper (c) tepid (d) dressed (e) All are correct

88. She was able to breathe (A) easier when she stood outside the massive (B) fortress (C) that sat on a clearing the size of two football (D) fields.  
(a) breathe (b) massive (c) fortress (d) football (e) All are correct

89. From time to time Jack would looking over (A) Mungo’s shoulder, suggesting (B) tactics (C) which invariably proved disastrous. (D)  
(a) looking over (b) suggesting (c) tactics (d) disastrous (e) All are correct

90. Horrified (A) passengers saw Olive stumble (B) and fall of (C) a platform as an express roared (D) in.  
(a) Horrified (b) stumble (c) fall of (d) roared (e) All are correct

Directions (91-95): In the following questions, a grammatically correct and meaningful sentence is given which is divided into five parts, where the first part is fixed and highlighted, in the remaining parts of the sentence namely (A),(B),(C) and (D) You have to arrange the four parts to make a contextually and grammatically meaningful sentence. If no such rearrangement is possible mark (e) as your answer i.e. ‘No rearrangement required’.

91. (A) the merger of Bharti Infratel  
(B) the world’s second largest  
(C) and Indus Towers will create  
(D) tower company  
(a) BCDA (b) CBDA (c) ACBD (d) DCAB (e) No rearrangement is required

92. (A) upcoming visit to India  
(B) the long-awaited trade agreement  
(C) during US President Donald Trump’s  
(D) appears to be off the table  
(a) DABC (b) BDCA (c) CDAB (d) ADCB (e) No rearrangement required

93. (A) Leaders of the Railway Employees Organization  
(B) alleged that the government wants to  
(C) hand over the rail infrastructure  
(D) to the private operators for financial benefit  
(a) ADCB (b) BACD (c) CDAB (d) DABC (e) No rearrangement required

94. (A) China has not yet given  
(B) India the go-ahead to send an  
(C) to coronavirus hit Wuhan  
(D) aircraft with medical supplies  
(a) DABC (b) BDCA (c) CBDA (d) BCDA (e) No rearrangement required

95. (A) mammals and birds move from  
(B) with a change in season, many  
(C) one country to another in search of food  
(D) and shelter, and for breeding  
(a) ACBD (b) CADB (c) DABC (d) BACD (e) No rearrangement is required

Directions (96-100): In the following passage there are blanks, each of which has been numbered. These numbers are printed below the passage and against each, five options are given. Find out the appropriate word which fits the blank appropriately.

Bumblebees, among the most important pollinators, are in (96) __________. Fuzzy and buzzy, they excel at spreading pollen and fertilizing many types of wild flora, as well as crucial agricultural crops like tomatoes, blueberries, and squash. But their numbers are (97) __________. New research using a massive dataset found that the insects are far less common than they used to be; in North America, you are nearly 50 percent less likely to see a bumblebee in any given area than you were prior to 1974. Moreover, several once-common species
have (98) __________ from many areas they were once found, becoming locally extinct in those places. For example, the rusty patched bumblebee, which used to flourish in Ontario, is no longer found in all of Canada—in the U.S., it's endangered. In a new paper published this week in the journal Science, researchers used a complex modeling process to (99) __________ that their (100) ______________ is driven in large part by climate change. Specifically, the scientists found that in areas that have become hotter in the last generation, or have experienced more extreme temperature swings, bumblebees are less abundant. In Europe, they are 17 percent less plentiful than they were in the early 20th century. The scientists examined the abundance of 66 species across the two continents.