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Question Paper Code : 71993

B.E./B.Tech. DEGREE EXAMINATION, APRIL/MAY 2017.

First Semester

Civil Engineering

HS 6151 — TECHNICAL ENGLISH – I

(Common to all branches except Marine Engineering)

(Regulations 2013)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Choose the correct word from the options that can be used for the meaning given : (4 × $\frac{1}{2}$ = 2)

(Envisage, enhance, hazardous, visionary, emanate, instantly)

- (a) Trying to improve —
- (b) To come from somewhere —
- (c) Involving risk or danger —
- (d) Happening immediately —

2. Fill in the blanks with the appropriate form of the underlined word : (4 × $\frac{1}{2}$ = 2)

- (a) The mechanic clearly specified the requirements. We need to assemble according to the _____.
- (b) The catalogue gives a full description of each product. It _____ in detail.
- (c) What is the basic requirement for an engineer? He _____ communication skills.
- (d) The lessons are arranged thematically. This _____ will help us to learn better.

3. Form correct compound words from the list of words given and fill in the blanks : $(4 \times \frac{1}{2} = 2)$

(Crossword, acid, alarm, engine, rain, radio, fire, valve, signals, puzzle)

- (a) Global warming results in _____.
- (b) The children were trying to solve the _____.
- (c) A _____ is fitted in the factory to prevent fire accidents.
- (d) The tower receives _____ from the satellite.
4. Write a single line definition for any TWO of the following terms : $(2 \times 1 = 2)$
- (a) electron
- (b) printer
- (c) a dish washer
- (d) a hammer.

5. Fill in the blanks with the suitable tense forms of the given verbs in the bracket : $(4 \times \frac{1}{2} = 2)$

The use of pesticides _____ (kill) large numbers of bee population in the recent past. The government _____ (issue) a law in 2014 asking farmers to limit the use of them. Researchers _____ (carry) out research in various laboratories now and very soon they _____ (invent) an alternative to the pesticides.

6. Choose the correct verb form that agrees with the subject : $(4 \times \frac{1}{2} = 2)$

- (a) Computer crimes _____ (is/are) relatively recent and police and crime branch _____ (has/have) not found solutions to solve it.
- (b) We _____ (need/needs) to develop some new software so that the criminals _____ (is/are) caught.

7. Rewrite the following conversation in the Reported Speech : $(2 \times 1 = 2)$

Satish : Sir, Have you read the article on social justice?

Kumar : Yes, I have. It is the need of the hour.

8. Use the adverb or adjective form of the words given in brackets and complete the sentences : $(4 \times \frac{1}{2} = 2)$

(silent, smooth, beauty, melody)

- (a) The camera _____ glides upon the studio floor recording the _____ performance of the dancer.
- (b) The audience sat _____ listening to the _____ songs of the singer.

9. Fill in with the correct prepositions taken from the option given in brackets and complete the sentences : $(4 \times \frac{1}{2} = 2)$

The hackers unlawfully enter everywhere and have made security _____ (in/on) the internet an ongoing problem, _____ (In/At) the US, the Amendment Act _____ (of/in) 1994, has made the laws very strict _____ (to/ on) the hackers.

10. Frame 'Wh' questions for the responses given : $(4 \times \frac{1}{2} = 2)$

- (a) ISRO launched eight satellites from Shriharkotta. (How many)
- (b) The satellites were launched on September 26, 2016. (When)
- (c) The satellite PISAT was developed by the students of PES, University, Bengaluru. (By whom)
- (d) The PISAT satellite weighed five kg. (What).

PART B — $(5 \times 16 = 80 \text{ marks})$

11. (a) Read the following passage and answer the questions given below:

A wetland is an area of land that is filled or covered with water for at least major part of the year. Wetlands are neither completely dry nor completely underwater. They are known as "transition zones" because they are the link between water and land, and they have a unique combination of the characteristics of both. The special characteristics of these "transition zones" enable them to support plant and animal life not found anywhere else. A common nickname for wetlands is "nurseries of life."

Wetlands have historically been regarded as wastelands and centers of disease and insect infestation, and humans have sought to avoid or eliminate them when possible. Since the 18th century, more than half of the original wetlands in the United States have been degraded or destroyed. In the 19th century, there was a massive push to drain the wetlands, which harboured malaria-bearing mosquitoes, after a series of yellow fever epidemics. Since then, further destruction has occurred as a result of human activities, such as agriculture, industrialization and development. Wetlands have been drained and converted to farmland, filled in to provide more opportunities for residential and industrial development, or used as dumping grounds for waste. Other human activities, such as pollution, while not directly targeted at eliminating wetlands, have also played a role in the process.

However, in recent decades, attitudes about wetlands have changed. People have begun to realize that wetlands are valuable and productive ecosystems that fulfil an essential function for both humans and wildlife. Due to their unique characteristics wetlands can support a wide diversity of plants, mammals, reptiles, birds and fish. They also control floodwaters and protect us from storms and hurricanes. Wetlands also improve water quality by filtering, cleaning and storing water. Lastly, many people rely on wetlands for their livelihood, as they are important centers for hunting, fishing and recreation.

The state of Louisiana, in the United States, relies heavily on wetlands, and is one of the regions of the country that has been most adversely affected by wetlands destruction. Southern Louisiana has some of the most extensive wetlands in the United States, containing approximately 40% of the country's total wetlands area. This is because Louisiana is located at the drainage gateway where the Mississippi River meets the Gulf of Mexico. Much of the region's economy and culture is built around the wetlands. However, Louisiana's wetlands are quickly disappearing. Although the state has only 40% of the country's wetlands, it also bears 80% of the country's wetland losses. Every 38 minutes, the equivalent of a football field is lost. This has serious implications for the region's wildlife and economy, as well as the ability of the region to withstand natural disasters.

The Louisiana wetlands are home to a variety of animals, including alligators, snakes, turtles, coyotes, muskrats, armadillos, pelicans and egrets, among others. The wetlands are a crucial resource for many endangered species. In fact, more than one-third of the United States threatened and endangered species live only in wetlands, and more than one-half use the wetlands at some point in their lives for breeding, nesting or raising their young. Many species of migratory birds depend on the wetlands and would go extinct if the wetlands were destroyed. The wetlands are also essential to the state's fishing industry, providing a habitat for fish, shrimp, oysters and crabs. As of 2013, Louisiana's commercial fishing industry is responsible for 25% of all seafood produced in the United States, with the highest production of shrimp, oysters and freshwater fish in the nation. Approximately one in every 70 jobs in the state is related to the fishing industry. The destruction of the wetlands would have disastrous consequences for the economy of the area and the livelihoods of many of Louisiana's residents.

In addition to endangering the wildlife and economic prosperity of an area, the loss of wetlands also puts humans at risk. Wetlands serve as a natural buffer zone against storms and hurricanes, slowing down the storms and reducing their force before they move inland. However, as the wetlands disappear, some cities are becoming more exposed. The city of New Orleans, Louisiana, has already suffered the consequences of this gradual depletion of wetland buffer zones. In 2005, Hurricane Katrina, one of the deadliest and most destructive hurricanes in the entire history of the United States, hit the Gulf Coast. There were more than 1,800 casualties, with the greatest number of them concentrated in New Orleans. Eighty percent of the city was flooded, and there were more than 700 dead. Many blamed the destruction of New Orleans on the failure of the levees, which are manmade barriers that prevent water from flooding into a city. However, scientists and researchers believe that the hurricane would have done far less damage to the city if the surrounding wetlands had been intact. Since the storm, there has been a greater national focus on preserving and restoring the wetlands on the Gulf Coast. Preserving our wetlands and maintaining a buffer zone against storms will only become more crucial in the future, as climate change may increase both the frequency and the severity of extreme weather events such as hurricanes.

In recent decades, since the importance of wetlands became apparent, there has been a push toward better education and regulation. The US. Environmental Protection Agency (E.P.A.) has declared the month of May to be American Wetlands Month, which is dedicated to celebrating the ways in which wetlands enrich our lives and the environment, Regulation has also been an important tool in the fight against wetlands loss. Since 1998, the United States has maintained a "no net loss" wetlands policy. This means that the total area of wetlands in the country must either remain constant or increase. If wetlands are destroyed for agriculture, development, or any other reason, the effect must be balanced out by restoring or reclaiming wetlands elsewhere. The policy has had a dramatic effect in slowing the rate of wetlands loss.

Questions : Choose the correct option for the following questions from the choices given : (8 × 1 = 8)

- (i) What is a wetland?
- (1) a business that makes its money from hunting or fishing
 - (2) a city on a coast where floods occur, often resulting in the loss of human life
 - (3) a "no net loss" policy requiring the amount of something to remain constant or increase
 - (4) an area of land that is filled or covered with water for at least part of the year.
- (ii) The destruction of wetlands is an effect. What is one of its causes?
- (1) Regulation has been an important tool in protecting wetlands.
 - (2) Wetlands have been drained and converted to farmland.
 - (3) Many species of migratory birds depend on the wetlands.
 - (4) Louisiana has some of the most extensive wetlands in the United States.
- (iii) Wetlands serve important purposes for humans. What information from the passage supports this statement?
- (1) Wetlands have historically been regarded as centers of disease and insect infestation.
 - (2) Wetlands can protect people from storms and help them earn a living through fishing.
 - (3) Louisiana is located at the drainage gateway where the Mississippi River meets the Gulf of Mexico.
 - (4) Hurricane Katrina caused more than 1,800 casualties, including over 700 in New Orleans.

- (iv) How have attitudes about wetlands changed in recent decades?
- (1) People have become less willing to regulate the destruction of wetlands than they used to be.
 - (2) People have become more concerned about the threat of disease from wetlands than they used to be.
 - (3) People have become more interested in protecting wetlands than they used to be.
 - (4) People have become less interested in protecting wetlands than they used to be.

(v) What is this passage mainly about?

- (1) Louisiana
- (2) Hurricane Katrina
- (3) malaria
- (4) wetlands

(vi) Choose the answer that best completes the sentence below.

For years people wanted to avoid or destroy wetlands; _____, many people want to save wetlands.

- (1) previously
- (2) currently
- (3) in closing
- (4) as an illustration

(vii) Which of the following statements about Louisiana's wetlands is incorrect?

- (1) Depletion of the wetland would affect the economy.
- (2) It is prone to more natural disasters.
- (3) The hurricane did not affect the state much because the wetland was intact.
- (4) The livelihood of the people may be affected because of diminishing wetland.

(viii) Wetlands are destroyed due to various reasons. Which of the following is not a reason?

- (1) Industrial development
- (2) Agriculture and farming
- (3) dumping ground for waste
- (4) Construction of football ground

(b) Read the following interview and answer the questions given below :

Interview with an Indian GMO farmer, Sudhindra Kulkarni, a farmer in the Gulbarga district of Karnataka State. Interview: OP is The Odd Pantry, SK is Sudhindra)

OP : How long have you been farming?

SK : This is our family trade. I have been farming since my childhood. In my father's days we grew wheat, cotton, Sorghum. We also kept bullocks. My father practiced traditional farming methods and faced a lot of poverty. I stayed in the farming line when I grew up. My brother is an entomologist in the Dharwad University. I supported him with my farming. He himself was hardworking and smart and got scholarships. I learnt about modern farming methods and was able to pay back debts. I also built a pakka house for my family.

OP : How much land do you farm and what do you grow?

SK : I have 25 acres that I inherited from my forefathers and I lease about 25 more for Rs.8,000 per acre per annum. I grow Bt cotton then rotate with pigeon pea and chickpea. I also grow sorghum for cattle feed.

OP : How did you learn about modern farming methods?

SK : I learnt from my interest in improvement. The government has agriculture programs. I learnt from watching programs on TV. I levelled my land and got better yield. Now I use micronutrients for the soil and urea, potash and DAP. But I use organic methods too. In April we spread cowdung on the fields for manure. I used to practice purely organic methods but I had to give that up. In the old days we never tilled the soil, now we do. But we are still completely dependent on the monsoon. Four or five months of the year we get canal water. The rest of the time we depend on the rain.

OP : How has your experience with BT cotton been?

SK : I have been growing BT cotton for ten years. It gives me excellent yield. I get one-and-half to two tons per acre. A farmer that I know is getting excellent yield with BT cotton with purely organic methods. My cattle eat BT cotton plants with no problems.

OP: Who helped you write your letter in English?

SK : My brother helps me with English. My 9th standard daughter helps me with Facebook and email. My language is Kannada. I don't speak English well so it is difficult for me to get my message across.

OP: What is your message for my readers?

SK : My message is this. I have a sincere request. Please think about the economic condition of the farmer. Without good yield a farmer is nothing. Without good yield, a farmer cannot survive. My family would be destroyed. Without good yield, we are zero. Please do not listen to all the stories about farmer suicides. This is not just my story, it is the story of my whole village. I don't have good English so I cannot convince anyone. All this talk that the farmers will become slaves, this is all wrong. We need good yield.

OP: What difficulties did you face while practicing organic methods?

SK : Animal Manure and cowdung are not easily available (Jeevaamruta). Vermi compost and pest control are not possible because environment does not help. After that we don't get the expected yield. Cost of production is expensive and after calculation. I don't get the rate. For me it is not possible to store my agri products till it reaches a high rate, because I have also financial commitment. Whatever rate I get, I should sell.

Answer the following question given below :

(8 × 1 = 8)

Choose the correct answer :

- (i) The interview reveals that the farmer
- (1) is living in poverty
 - (2) has good communication skills
 - (3) follows traditional methods of farming
 - (4) follows modern methods of farming.
- (ii) Which of the following conditions affects farming?
- (1) Lack of knowledge of English
 - (2) Organic methods of farming
 - (3) Depending on monsoons
 - (4) Agricultural products are very expensive.
- (iii) One of the reasons for the farmer being successful is his
- (1) interest in farming
 - (2) interest to improve his farming
 - (3) interest to grow BT cotton
 - (4) interest to earn more money.

(iv) Which of the following statements is true?

- (1) The economic condition of the farmer depends on the yield
- (2) Farmers are slaves because they have no yield
- (3) English is very essential for farming
- (4) Families of farmers depend on BT cotton.

Fill in the blanks with the correct words taken from the passage :

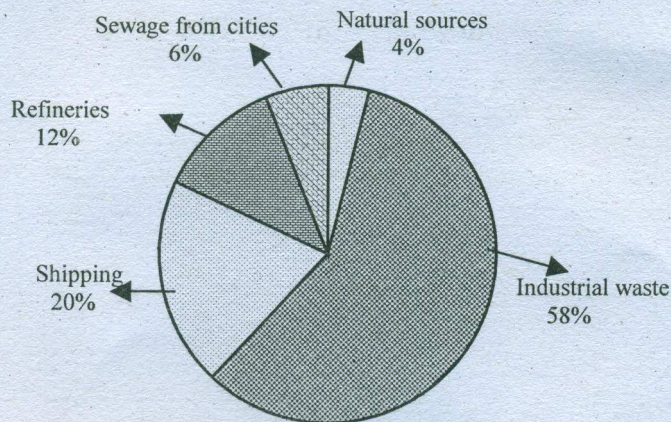
- (v) The farmer stopped organic methods to cultivate BT cotton because animal manure is _____.
- (vi) A practice in farming not used in early days but followed now is _____.
- (vii) The farmer is not able to get his message across and _____ others because of his lack of English.
- (viii) The farmer has to sell his produce immediately due to the _____.

12. (a) Dengu is caused by mosquito bites. Write eight recommendations on how people should protect themselves from catching the disease.

Or

- (b) Your father has gifted a new bike to your brother. Write eight instructions that you will give him to maintain and use it carefully.
13. (a) The following chart presents the sources of pollution to sea. Read it and interpret it in 250 words. Write four recommendations that could be given to the industries to check the waste into the water.

Percentage of pollution into the sea from various sources

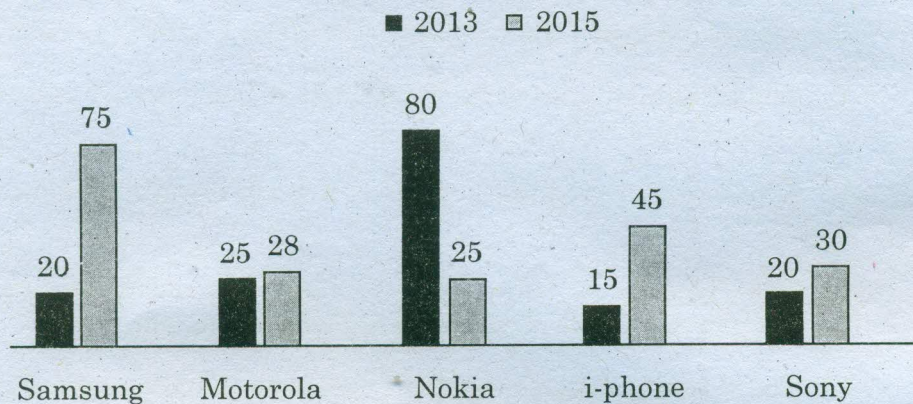


Or

- (b) The bar chart represents India's Smart phones import in the years 2013 and 2015 in millions.

Read the chart, interpret the data and write a paragraph of 250 words.

India's Smart phone import in millions in the year 2013 and 2015



14. (a) You took part in yoga sessions conducted by your college. Write a letter to your friend about the experience and how it is useful to you and encourage your friend also to join yoga sessions in his/her college.

Or

- (b) As an NSS volunteer you took part in "Clean City" programme and all volunteers cleaned the public park. Write a letter to the NSS Coordinator about the experience and highlight the need for keeping the parks clean so that they will be of benefit to the society.

15. Attempt any ONE of the following essays in 300 words :

- (a) Sports and games attract the young generation. Compare and contrast watching a match live in a stadium to watching it in TV.

Or

- (b) Millions of money is being spent on exploring the outer world. Should India spend money in space exploration? Write your arguments in 300 words.