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Question Paper Code : 57447

B.E./B.Tech. DEGREE EXAMINATION, MAY/JUNE 2016

First Semester

Civil Engineering

HS 6151 – TECHNICAL ENGLISH – I

(Common to all branches)

(Regulations 2013)

Time : Three Hours

Maximum : 100 Marks

Answer ALL questions.

PART – A (10 × 2 = 20 Marks)

1. In each of the following questions, out of the four alternatives, choose the one which can be substituted for the given expression : $(4 \times \frac{1}{2} = 2)$

(i) One who journeys to a holy place

(A) devotee (B) pilgrim

(C) atheist (D) patriot

(ii) An instrument for recording earthquake

(A) seismology (B) monograph

(C) earth-mover (D) seismograph

(iii) An instrument used for measuring the intensity of sound

(A) audiometer (B) microphone

(C) CD player (D) DVD

(iv) The killing of a large group of people, especially those of a particular nation or ethnic group

- (A) genocide (B) assassination
(C) murder (D) martyrdom

2. Fill in the blanks with the appropriate forms of the words given : (4 × ½ = 2)

Verb	Noun	Adjective
	belief	believable
compare		comparative
compel	compulsion	
	enjoyment	enjoyable

3. Use the suitable compound noun from the list of words to complete the following sentences : (4 × ½ = 2)

piece, birthday, exercise, holidays, juice, party, book,
summer, scissors, pen, orange

- (a) She was extremely sad because she could not find her _____.
- (b) My friend advised me to attend a foreign language course during _____.
- (c) In the canteen, we can get _____ only. But we prefer either coffee or tea.
- (d) My boss has planned to celebrate his birthday in a grand manner. He invited me to attend his _____ at a five star hotel.

4. Write a single sentence definition for any TWO of the following terms : (2 × 1 = 2)

- (a) monitor (b) malware (c) dam (d) sump

5. Give antonyms of the following words by adding suitable negative prefixes : (4 × ½ = 2)

- (a) decent (b) resistible (c) interesting (d) accurate

6. Fill in the blanks with suitable tense forms of the verbs given in brackets : (4 × ½ = 2)

British Columbia _____ (be) the third largest Canadian province both in area and population. It is nearly three times as large as Texas, and extends 800 miles (1,280 km) north from the United States border. It _____ (include) Canada's entire west coast and the islands just off the coast. Most of British Columbia is mountainous, with long, rugged ranges running north and south. Even the coastal islands _____ (be) the remains of a mountain range that _____ (exist) thousands of years ago. During the last Ice Age, this range was scoured by glaciers until most of it was beneath the sea. Its peaks now show as islands scattered along the coast.

7. Choose the correct form of verb that agrees with the subject : (4 × ½ = 2)

- (a) The books borrowed from the library _____ (is / are) on my table.
- (b) Many a student _____ (has / have) made the same mistake.
- (c) One of the books _____ (has / have) been missing.
- (d) None of my friends _____ (was / were) there.

8. Rewrite the following short conversation in the form of a reported speech: (4 × ½ = 2)

Customer : Good morning. I have come to deposit ten thousand rupees.

Bank official : Are you going to deposit cash / cheque ?

Customer : I want to deposit cheque.

Bank official : O.K. Please, fill in the pay-in slip form and enclose the cheque.

Customer : Thank you

9. Edit the following passage by correcting the mistakes in spelling, and grammar : ($8 \times \frac{1}{4} = 2$)

the modern age is an age of ilectricity. People were so used to electric lights, radio, televisions, and telephones that it is hard to imagine what life would be like without them. When there is a pover failure people grope about in flickering candlelight. Cars hesitate in the streets because there were no traffic lights to guide them, and food spoils in silént refrigerators

10. Change the statements to questions using the question word in parenthesis. ($4 \times \frac{1}{2} = 2$)

- (a) I should reduce my socializing time in order to improve my grades. (Why)
- (b) She spends most of her time in watching films. (How)
- (c) I washed my motor cycle last week. (When)
- (d) He lived in Chennai for three years. (How long)

PART - B ($5 \times 16 = 80$ marks)

11. (a) Read the passage and answer the questions given below : (16)

Televisions show sounds and pictures. They get data from cables, discs, or over-the-air signals. In addition, they turn this data into sounds and images. People watch news and shows on them. You probably call them TVs.

John Baird made the first TV in 1925, which had one colour. It could only show 30 lines. This was just enough room for a face. It didn't work well, but it was a start.

In 1928, the first TV station was set up in New York. In those days, few people had TVs and the broadcasts were not meant to be watched. They showed a Felix the Cat doll for two hours a day. The doll spun around on a record player. They were experimenting. It took many years to get it right.

By the end of the 1930s, TVs were working well. America got its first taste at the 1939 World's Fair. This was one of the biggest events ever. There were 200 small, black and white TVs set up around the fair. The U.S. President gave a speech over the TVs. The TVs were only five inches big but the people loved it.

They wanted TVs. But World War II was going on during this time. Factories were busy making guns and bombs. When the war was over, TV spread across the country.

By 1948 there were 4 big TV networks in America. They aired their shows from 8 to 11 each night. Local shows were aired at other times. Most of the time, nothing was shown at all. TV was not "always on" like it is now.

Colour TVs came out in 1953. They cost too much money for most. Also, shows were aired in black and white. By 1965, color TVs were cheaper. TV stations started airing shows in color. People had to switch if they wanted to see the shows.

Now most TVs are high-def. This means that they have many lines on them. This makes the image clear. TVs have come a long way since Baird's 30 line set. High-def TVs have 1080 lines. There are state of the art sets called 4K TVs. These TVs have 3,840 lines. Some people watch TV in 3D. I wonder what they will come up with next.

- (1) When did colour TVs come out ?
(a) 1925 (b) 1953 (c) 1939 (d) 1965
- (2) Which was not true about the first TV ?
(a) It could only show one color. (b) It only had 30 lines,
(c) It did not have sound. (d) It did not work well.
- (3) When did networks start showing programs in colour ?
(a) 1948 (b) 1953 (c) 1965 (d) 1939

(4) Why did the first TV station only show Felix the Cat for two hours a day ?

- (a) They were running tests.
- (b) Felix the Cat was really popular.
- (c) Felix the Cat had been a big radio star.
- (d) Felix the Cat was the only show that they had.

(5) Which of these events slowed the spread of TVs ?

- (a) The World's Fair of 1939
- (b) The Civil War
- (c) The election of the U.S. President.
- (d) World War II

(6) What is the author's main purpose in writing this ?

- (a) He is trying to explain how a TV works.
- (b) He is telling readers how TVs became popular.
- (c) He is describing the history of the TV.
- (d) He is trying to get people to watch more TV.

(7) Why did many families switch to colour TVs in 1965 ?

- (a) Colour TVs cost a lot of money.
- (b) Many shows were only shown in colour.
- (c) Colour TVs came out in 1965.
- (d) World War II ended and troops returned home.

(8) Why was 1939 an important year for TV ?

- (a) Many Americans were introduced to TV.
- (b) The first colour TV was released.
- (c) The first TV station began broadcasting,
- (d) John Baird created the first TV.

OR

11. (b) Read the excerpts from an interview with the renowned scientist CNR Rao, who is the Bharat Ratna award winner and answer the questions given below: (16)

Dr Chintamani Nagesa Ramachandra Rao, who is better known as CNR Rao or simply Dr Science, has been honoured with the country's highest civilian honour, the Bharat Ratna.

Reporter : You have been honoured with the Bharat Ratna. How does it feel to receive India's highest civilian honour ?

CNR Rao : I am most grateful that my country has considered me worthy of receiving the Bharat Ratna award. I am really overwhelmed with this honour.

Reporter : What is your advice to young scientists and enthusiasts who want to research and establish a career in science and technology ?

CNR Rao : Those who are interested in science should not give up whatever comes in the way. Determination to succeed is essential if one has to pursue science in India. Perseverance and doggedness are essential qualities. I believe that there are great opportunities for young people in science and technology.

Reporter : You are known to have nurtured many students and taken scientific institutions to new heights. What is your biggest goal in life ?

CNR Rao : A large number of students have obtained PhD degrees and post-doctoral training with me and it has been a pleasure to work with these young people. My only hope is that I can do even better in the next few years since there is no limit to excellence. Furthermore, I would like India to be a global leader in science.

Reporter : What are India's biggest achievements in the field of chemical engineering ? What does the future hold for research and scientific innovations in this field ?

CNR Rao : Of the various science subjects, chemistry seems to have done well. My recent experience with nano science and technology has shown that whenever we do targeted funding and provide the right facilities to institutions and individuals, it will be possible to get good results. In nano science, we were doing very little ten years ago. Today, I believe that India is ranked third or fourth in the world. What is also interesting is that of all the industrial ventures, chemical and pharmaceutical industries have done well in India by supporting research and development. I feel basic science is getting its due now.

Reporter : You have worked on two dimensional oxides, nano-metals and graphene and were quoted as saying that these would keep you busy for next few years. What is your take on the way the Indian scientific scenario is progressing ?

CNR Rao : Our scientists have to pick the right problems — which will have an impact on the science concerned and get noticed in the world. This is something that all of us have to learn so that India makes a greater impact. In graphene and many other contemporary areas of importance, there are very few people working in India. Graphene and carbon nano-tubes are considered to be top areas of world science today, but not so in India.

Reporter : Tell us a bit about graphene and the artificial photosynthesis method that you are working on ?

CNR Rao : As you know, graphene is a thin layered material which is only one atom thick. This material has created a big sensation. I am working nowadays not only on graphene but also on graphene mimics which involve graphene-like materials produced of other layered inorganic materials. Since I started working in this area in the last four-five years, there is a great boom. Artificial photosynthesis is another area of immediate interest to me because this is one way of producing hydrogen. If we can do in the laboratory what plants do so easily, it will be fantastic.

Reporter : What is your routine for the day ? What kind of lifestyle do you believe in ?

CNR Rao : My routine for the day is to get up early in the morning at 4.30am, do some exercise and then think about my work. Afterwards, I listen to some music and have coffee with my wife at around 6 in the morning. I then get ready to go to work.

Reporter : What does science mean to you ? At what age did you realise you wanted to get into this field and how has been the experience been so far ?

CNR Rao : I considered seriously about becoming a scientist when I was about 17 years, (when I just completed my bachelor's degree). This feeling got confirmed by the time I finished my master's degree in Varanasi. By that time, a famous book of Linus Pauling on the nature of the chemical bond had really ignited my interest in chemistry.

Write short answers for the following questions :

- (1) What are the suggestions given by CNR Rao to young scientists ?
- (2) Describe the situations that motivated him to become a scientist.
- (3) What are the favorite research areas of CNR Rao in recent times ?
- (4) Explain the status of research in nano science in India ?

12. (a) Write a set of eight instructions that can be followed by family members to reduce electricity consumption at home. (16)

OR

- (b) Poverty is a major problem in rural areas and the villagers suffer a lot because of their inability to fulfill their basic needs. Write a set of eight recommendations to improve their standard of life. (16)

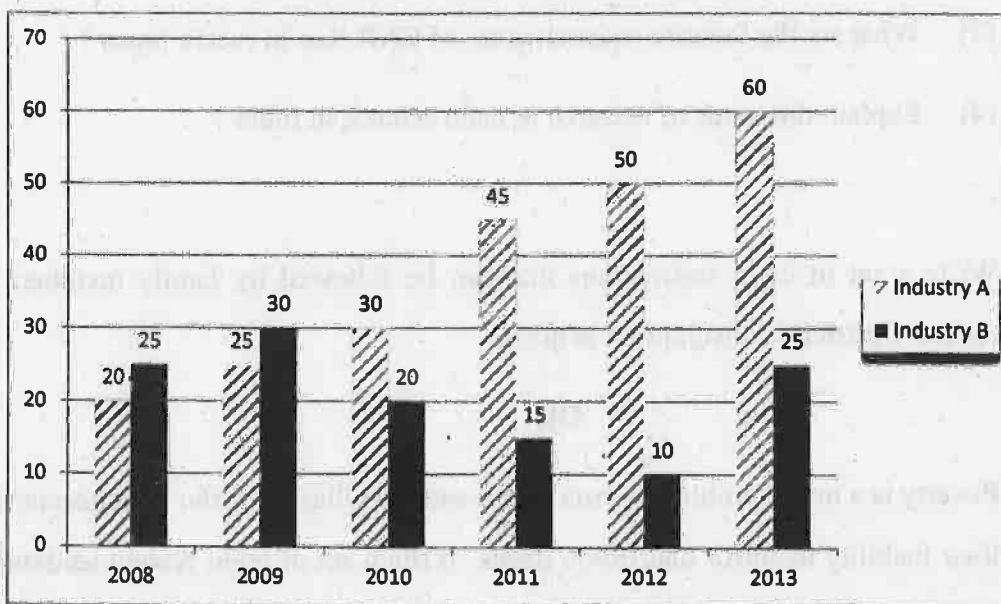
- 13 (a) Table given below lists the details of two types of two wheeler - Honda Activa I and Honda Dio Deluxe. Write two paragraphs comparing the details found in the given table. (16)

SI. No.	Details	Honda Activa-I	Honda Dio Deluxe
1	Price	₹ 49,490	₹ 52,555
2	Top speed (kmph)	85	93
3	Weight (kg)	110	105
4	Fuel tank capacity (litres)	5	6
5	Reserve fuel capacity (litres)	1.3	1
6	Fuel efficiency overall (per litre)	60	55
7	Alloy wheel	√	×
8	Fuel type	Petrol	Petrol
9	Tubeless tyres	√	√
10	Gear box type & clutch	Automatic	Automatic
11	Cooling system	Air cooled	Air cooled

OR

- (b) The bar chart given below shows the details of the production of fertilizers by Industry-A & Industry-B during 2008 to 2013. Write two paragraphs interpreting the details found in the chart. (16)

Production of Fertilizers (in 10000 tonnes)



14. (a) Imagine that your friend who is in United States wants to know about important festivals that are celebrated every year in Tamil Nadu. Write a letter to your friend about various festivals and their significance. **(16)**

OR

- (b) Your friend who is studying in a Higher Secondary school has got a free laptop computer. He is not aware of the different ways of using laptop for educational purposes. Write a letter to him/her about the benefits of laptop. **(16)**

15. (a) Write an essay not exceeding 300 words explaining the benefits of physical exercise. **(16)**

OR

- (b) Write an essay not exceeding 300 words describing different ways of protecting environment. **(16)**