Problem Statements

Civil Technical

1. Sustainability is most often defined as meeting the needs of the present without compromising the ability of future generations to meet theirs. It has three main pillars: economic, environmental, and social. These three pillars are informally referred to as people, planet and profits. Answer the following questions based on the above context.

Mr Kumar is a health-conscious person who has a planned daily schedule that involves waking up early in the morning, going for a workout, eating breakfast regularly, etc. His wife, Rutuvi, is an eco-friendly woman. Mr Kumar had been serving as an Assistant Professor at a nearby university. Recently, he was transferred to another branch of the university in Delhi. They both have been provided with a property to reside in, which is 2km away from his workplace and has abundant empty land. The city is highly polluted, scarce of water and faces frequent power cuts. The couple started facing problems as they find it challenging to adapt to the disturbed condition of the city. They both have to think of some ways to adjust to the situation without compromising their healthy lifestyle. Suggest ways for the same.
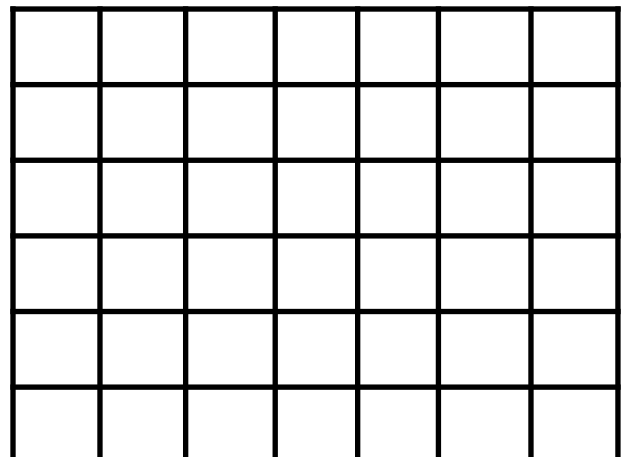
(**Note**: Apart from describing the conventional technologies used, think of some - innovative solutions and let us know about them.)

OR

2. DESIGN A TOWN :

Construct a workspace of 6cm ×8cm grid rectangle and arrange the following elements logically so that space is efficiently used and sufficient boundary space is present. Attach the sketch in the mail.

A. 3 Shops (1cm × 1cm)

B. 2 Houses (2cm ×1cm)

C. Hospital(4cm ×3cm)

D. Factory (3cm ×3cm)

E. Roads

F. Green Fields(for the left area)

Outreach

1. Due to the covid crisis, Institutes are forced to promote online teachings as the only option. It is resulting in small loopholes like practicals, which can't be compensated without offline teachings to core students of respective departments.

Core Companies are observing this precisely.

What steps would you take from your network to reach companies to compensate for these factors?

Being a council member of cec, write an e-mail to the head of Hindustan Construction Company (HCC), promoting your department abilities to convince them to come for placements.

OR

2. Read the following carefully:

Firm 1:

• Based in Delhi

• Write articles on a daily basis about innovative things being done by students in India

• The Head of Marketing is a very helpful guy, and he tends to go and meet the students mentioned in the articles personally

• They have a pan India reach (1.2 Billion people read their articles)

Firm 2:

• Based in Guwahati

• Works on innovation in Civil Engineering

• Has a good name in this field

• They tend to offer projects to students, and if completed with extreme finesse, the students are given a reasonable sum of money.

• The CEO of the company is an alumnus of IIT Roorkee

Now answer the following:

1. Which of the two firms would you be approaching for collaboration as a member of CEC and why?

2. What sort of collaboration would you make?

3. What would be the deliverables for each of the party?

Design

1. Pick any one of the Indian construction companies like L&T, Tata, Hindustan Construction, etc. Redesign its logo. Mention your assumptions and thought process while redesigning.

2. Design an invitation card OR a poster for a guest lecture conducted by CEC on the topic "Tips to IES Exams."

3. Suppose you have all the powers; what are the things you would like to change in India. Write in about 100 words.

Note- For 1,2- If you're familiar with illustrator or Figma, make it digital OR else you can do it using pen-paper.

Editorial

1. Create a hypothetical world where there are no rules, perceived morality, and society's expectations.

OR

Being in a highly competitive atmosphere with people running in rat races of success, What are your views on depression and its negative impacts? And if you disagree with this statement, please free feel to write your dissent.

2. If you would have to choose one technology to sustain yourself for a lifetime, what would you choose and why?

3. If there is any other write up which you would like to share with us. Do send us through the mail.

Web Development

Design a basic portfolio website, mentioning your
a) About
b) Academic qualifications

c) School Projects

d) Achievements/ Awards

e) Skills

f) Contact details (A general query box and an active mail id link directing mailto your mail-id)

We are expecting a static website using basic HTML, CSS. Adding functionality using javascript or using toolkits like bootstrap to make the website attractive is not required but appreciated.

The completed assignments are to be submitted through **Google forms (https://forms.gle/ywoy1NqnNcpWv1iu9).** The deadline for the same is **1st May (Saturday) end of the day**.

If you face any problem with the Google forms, please send your solutions through the mail. The subject of the mail should be in the format "your name_enrollment number_verticals applied for".

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