Enrollment No. MIT2021117

R.M. Exercise -6

Dated November 11, 2021

Time: 1.5 hr M. Marks 30

Q 1 Fill in each blank with the correct case of the pronoun, 05

Choose from the following,

I/me; he/him; they/them; she/her;us/we

1. When did you last write a letter to **him** and Mary?
2. Priti and **I** are coming to Agra for a visit in summer.
3. Please allow the Agarwals and **us** to go ahead and file the suit.
4. My brother and **I** really should write a book together.
5. The Chennai fighters and **we** battled throughout the entire tournament.
6. I would like to take a trip to USA with Grandma and **her**.
7. We have to wait until the Seths and **he** finally get here.
8. Is the gift that just arrived for Robin and **me ?**
9. Sanjay and **I** met about a year ago at the bank where she worked.
10. The man was rather rude to my brother and **me.**

Q 2. Correct the following sentences, 05

1. We did make a selection between real and virtual images

Ans. We made a selection among real and virtual images.

2. The discovery led to a new drug . Dr Batra discovered the drug.

Ans. The discovery led to a new drug. Dr. Batra discovered the drug.

3. You have to carry out the experiment with mouse model

Ans. You have to carry out the experiments using the mouse model.

4. There are mainly two tests for acidic character.

Ans. There are primarily two tests for acidic character.

5. It was discovered that the result reported by John et.al had inconsistencies.

Ans. It was discovered that the result reported by John et al. had inconsistencies.

6. The Penicillin was discovered by Flemings.

Ans. No correction needed.

7. The results obtained by Dr James were probably right.

Ans. The results obtained by Dr. James were probably right.

8. The compounds were synthesized then purified and then subjected to analysis.

Ans. The compounds were synthesized; then purified; then subjected to analysis.

9.Diagnosis was based on two analytes glucose and haemoglobin

Ans. The diagnosis was based on two analytes-glucose and haemoglobin.

10. Correct the following words,

ml. gm. Ph.D. H2O.

1. millilitre: mL
2. gram: g
3. PhD
4. Water : H_2O

Q 3. While appearing for an interview for a research job in an IT academic institution , write the three selling points you would tell the interviewer about yourself, Cite an incident for the most important point in not more than 100 words. 10

I have obtained my Masters in IT from Indian Institute of Information Technology, Allahabad which is renowned for its cutting edge research and rigorous academics.

Apart from that, I've participated in Google Summer of Code under CERN organization to develop open source softwares for scientific computing on Linux based OS.

I've gained invaluable experience of working in a remote team with members having different time zones. This has taught me how to communicate effectively in a team and to work in an asynchronous manner which is highly needed in the current situation.

Before the GSoC project, I had no experience with some of the technologies that were required to develop the needed software. But I was able to convince the maintainers of the project that I'm able to work on that project based on my previous experience. Also, after getting selected, I learned enough about the new technologies so that I can get my work done.

Q 4 Write summary and paraphrase for the following text, 10

“The micro-strip antenna can be used for wireless applications as it has the particular characteristic such as lightweight, easy to mount and it is easy to mass produce which is good for the micro-strip antenna to be deployed in different fields, on the other hand the micro-strip antenna in its simplest form cannot meet the bandwidth requirements and gain for most wireless communication systems, overcoming these limitations, the micro-strip antenna can be used to its full potential.

To meet these requirements; several techniques have been developed which have proved their efficiency for planar antennas. This article focuses on the development of new antenna structures for Ka-band applications; Reducing the weight while ensuring the rigidity of the structure.

We propose a new Ka-band application for the polygonal antenna where we propose to present the reflection coefficient, the VSWR and the gain of this polygonal antenna element.

Although the width of a patch antenna in its simplest form is one of the factors that affect the bandwidth width; but it is not practical to increase it to obtain satisfactory results.”

Summary:

Micro-strip antenna is lightweight, easy to mount and mass produce. This makes it a better choice over basic micro-strip antennas.

Many approaches have been used to develop new antenna for Ka-band applications which reduces its weight.

Here, in this proposal we propose a new Ka-band for polygonal antenna which has reflection coefficient, the VSWR and the gain of this polygonal antenna element.

We found out that the width of patch of antenna affects the bandwidth width but it is not practical to increase it.

Paraphrase:

Micro-strip antennas can be employed in wireless applications since they are lightweight, easy to mount, and mass produce. This makes them an ideal choice for deploying in various fields. The microstrip antenna, on the other hand, cannot match the bandwidth and gain requirements in its most basic form. Hence, they can be used with their full potential in such scenarios.

Several approaches have been devised to suit these requirements, and their efficacy for planar antennas has been demonstrated. This article focuses on the development of innovative antenna constructions for Ka-band applications, with the goal of reducing weight while maintaining structural integrity.

We propose a new Ka-band application for the polygonal antenna, in which the reflection coefficient, VSWR, and gain of this polygonal antenna element will be shown.

Although the width of a patch antenna in its simplest form is one of the factors that affect the bandwidth width; but it is not practical to increase it to obtain satisfactory results.