**Q1. Identify and anticipate the first, second and third order effects that have occurred and may occur by introducing e-gov portal in our university of Hyderabad.**

**Ans:**The order of effect identified and anticipated with respect to e-gov portal are-  
The first order of effect mainly involves, **increased speed/efficiency/accuracy** and **initial target of IT implementation**. These effects have worked well with the e-gov portal and has helped to gain speed and efficiency as it has made clutter free and paper free experience. As registration of semester, electives, fee payment and Marks viewing and can be done easily. There is need of bit enhancement in accuracy and efficiency to make it even better. Initial target of IT implementation seems up to the mark.  
Now talking about second order of effect which involves reorder and re-staff internal function, reengineer old process and reconstruction of organization and retraining of workers. Effect of second order has certainly worked in different layer, because e-gov portal requires IT skills to govern, access and manipulate we can clearly identify the changes and reordering of staff to make function work smooth internally. Old process such as maintain records in hard copy got lesser and new infrastructure are installed such servers, computers and related devices to engineer the process.  
In the third order of effect which involves restructuring of Industry and government departments, Schools, colleges. If we will talk more specifically about university of Hyderabad e-gov portal then we have achieved initial development but when we talk in general government department, schools and colleges and even industry they need serious IT upgradation and reconstruction.   
The e-gov portal definitely need reconstruction in order to make it more reliable and productive.

**Q2. Elective registration is a popular event that happens in School of CIS every semester. What type of data is collected during the process and what information can be retrieved from the data? What changes do you suggest for our school based on the data?**

**Ans:**

Type of data collected during the process of elective registration  
Name of Student , Student Registration number, Course, Semester, Elective preferences, current cgpa, backlogs etc.

When all the above details are provided by students then certain information can be retrieved from that like, how capable is a student to enroll in a particular elective because if a student have many backlogs in previous semesters then definitely he should go for the elective with lower credits.

According to the information I would like to suggest as it is an elective course so student should not be filtered on the basic of CGPA at least because maybe because of his personal reasons he/she was not able to perform so good academically.

**Q3. Assume Telangana Government is planning to promote electric vehicles. What strategies can it apply to compete in the market and to be in the competitive position with the existing petrol and diesel vehicles?**

**Ans:**   
Breaking away the old norms and establishing a new consumer behavior is always a challenge. It is common to find users anxious about the speed and range of electric vehicles. Thus, a lot of sensitization and education is needed, in order to bust several myths and promote Electric vehicle within the market.

strategies can be applying to compete in the market and to be in the competitive position with the existing petrol and diesel vehicles. These include:

1. Charging infrastructure

2. Battery performance

3. Supply-demand gap

4. Creating the closed-loop

Building charging infrastructure

The big challenge is charging infrastructure which will need to be combined with existing refueling stations and at alternative locations closer to homes. improving battery swapping stations will eliminate wait time for charging, make better use of land, reduce the size of batteries in vehicles and will give an increased available range.

Increasing battery performance

Given the fact that electric charging infrastructure will take considerable time to be replicated and the ubiquity of fueling infrastructure in India, it is essential that batteries become far more durable to better compete with the internal combustion engine vehicles. At present, the Hyundai Kona electric has the highest range of 452 km on a single charge among electric cars available in India, which could change in the years to come.

Bridging the supply-demand gap

Another major challenge preventing larger-scale adoption of EVs today is the fact that the range is quite limited, thereby constraining the use-cases for electric vehicles. Again, this is largely solved through scale since it becomes a game of more supply that accommodates for larger, more cost-effective batteries that provide a better overall range. Once this performance reality sets in, there will be no turning back from electric vehicles.

Creating the closed-loop mobility ecosystem

Along with charging infrastructure, the establishment of a robust supply chain will also be needed for automakers to make the shift feasible at their end. Further, recycling stations for batteries will need to recover the metals from batteries used in electrification to create the closed-loop required for the shift to electric cars to be an environmentally-sound decision, even after electric vehicles have aged.

**Q4. Explain any four logics used for ranking of web pages. Which among them do you think is efficient?  
Ans:** C**ontent of the Page:** Content is one of the most important Google ranking factors. Content means a web page should not only contain the keywords but its content should also be relevant like it should contain enough words to describe a particular thing and plus if it contains some images also then it would be more beneficial. In fact, the Search Metrics study cited above found that just 53% of the top 20 queries have keywords in their title tag, and less than 40% of landing pages have keywords in their H1.  
The page content should be optimized or comprehensive and to optimize our content we can use content auditing software:

Find and fix thin content.  
Explore fewer topics in greater detail on each page.  
Improve your Topical Authority in your niche.

**Title Tags:** It is an HTML tag which is used to define the text or the title of the search listings which is on the top of Web browser. The title should be accurate and should give a brief of the page’s content. The tag is very essential to each and every website and its web pages, and each webpage should have a different Title tag

**Meta Description Tag:** The Meta description tag is intended to be a brief description of your site or page’s content which can be used by the search engines. The Meta description tag is like:  
<meta name=” description” content=” Brief description of the contents of your page.”/>  
**Backlinks:**The key to a strong link building campaign is to create content people crave, and then to promote that content relentlessly. When other industry authorities read and link to your content, Google will read your backlink’s matching anchor text and consider your content more relevant.  
Among all above four logics the efficient one is the content of the page.

**Q5. Differentiate between E-commerce and Mobile Commerce. Which among them do you think will work better in rural areas?**

**Ans:  
Mobility:** E-commerce is performed over computers and laptops with internet connections. Such technologies were once marveled at, but with users turning to mobile phones, computers become severely lacking in mobility.  
The difference between the ability to make purchases easily on the spot and logging into an e-commerce website later favors retailers with e-commerce apps. Impulsive shoppers are also better targeted by means of instant access to the shopping cart. With the introduction of mobile payment wallets like Apple Pay and Android Pay, mobile users are given more choices to make instantaneous transactions on the spot.

### Push Notification: Another obvious advantage m-commerce has over e-commerce is the use of push notification on mobile phones. Compared to blasting promotional letters to the email list, push notifications are perceived to be less intrusive. Today, push notifications can also include beautifully-rendered images of the products, which leads the users to the m-commerce app with a single touch. With an average opt-in rate of 67.5%, the chances of getting the attention of users with push notification are high.

**Location Tracking:** The only metric used to track e-commerce shoppers on computers is the IP address. The IP of computers gives a loose indication of the whereabouts of shoppers and is limited in terms of locational advertising strategies.   
On the other hand, m-commerce leverage on the various positional tracking technologies on the mobile phones of users, such as GPS, Wi-Fi, and cellular connections. The accuracy of the location can be used by retailers to alert users of promotions within their vicinity.   
For example, a retail outlet that is having an on-going sale can send notifications to users within a 5-miles radius. A fitness gym could target consumers in the vicinity with yearly membership signups by piggy-backing on a navigational app.

### Security: In 2018, credit card frauds increased by 18.5% and resulted in a loss of a whopping $24.26 billion. The e-commerce platform, which is mostly transacted over credit cards, puts the financial safety of users at stake. Even without massive breaches of credit card data, the accounts of e-commerce shoppers aren’t exactly safe. The security provided by a username and password isn’t the best protection against modern-day hackers. M-commerce, where transactions are conducted over a mobile phone, has the potential to incorporate better security. The use of phone identification as a second layer of security removes the possibility of a fraud committed remotely.  For additional security measures, existing biometrics technologies such as facial recognition or iris-scanning can be introduced as an option in the m-commerce app.  M-Commerce is better for rural areas because in my village there’s no broadband connectivity, no nearby shop to repair computer /laptop, no proper electricity and many problems like that.

**Q6. What type of IT management (Centralized Vs Decentralized) is implemented in e-gov portal of university of Hyderabad? Would it have been good had it been implemented otherwise? Share your views.**

**Ans:** ‘Centralized’ IT management is implemented in e-gov portal of University of Hyderabad. This type of IT management has been implemented considering the required usage. As the centralized network architecture is built around a single server that handles all the major processing.  
Due this feature of centralized server e-gov has adopted this as the e-gov is portal which is accessed by all the students and faculties and which offers features of registration to fee payment and other related work and that has to be stored in the centralized storage medium in order to maintain consistency and reliability of data. And perfectly fit the IT Procurement and completely fit with the work culture and decision taken at the top to avoid any reliability issues.  
Where on the other side decentralized, Individual departments manage their own IT by using shared vendors and IT facilitators but from their own budgets and it provides Autonomy over their work which we clearly don’t need.  
Decentralized networks require more machines, which means more maintenance and potential issues, which in turn means an additional burden on your IT resources.  
Considering our usage and operation and there more it would not be good to use decentralized.

**Q7. Assume you are the research scholar of our University. And University has installed CCTV cameras in research labs to ensure students do not waste time and increase their productivity. This is in addition to the log record data that was already being maintained. What are your views on this idea? Do you agree or disagree? (Note: Please remember that University is more interested in Regularity, Discipline and Productive work of the student)**

**Ans:**

If such scenario happens then considering my own point of view, I will be to differ and won’t agree to it. Although the intention and motive behind the cause is good I don’t deny that what unnecessary problem it create is main thing to point out.

• Loss of privacy – Due to continuous monitoring of Camera and other means, there will be complete hampering of privacy although a work place is subject to be public domain despite that you will have extra burden when you are exposed to complete monitoring which further led to hampering of confidence level and as result productivity will get decrease.

• Independence of Work – In order to bring most from the re-searcher, you will have to give them freedom of work where they are free of complete Monitoring because a free mind will think and bring more creativity to the task and it will also allow them to think more freely to innovate. When you put them in some kind of surveillance then they will focus more on completing the task instead of doing complete justice to the job. Disciples and Regularity can be monitored without implementing cameras and checking logs files also.  
Therefore I won’t appreciate such step to be implemented.