**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:** There are many challenges which can't be solved alone by the government, it can be possible by the combined efforts of manufacturers and government. Yeah, the role of government is little bit more important in this case. The following 4 major problems government will face in this vehicle market:

Regulatory environment:

Time to market is critical since original equipment manufacturer will face severe regulatory penalties in many markets for failing to meet co2 emissions regulations.

Gradual decline in government subsidies expected as technology advances.

Customers:

Customers not requesting Electronic Vehicles (EVs); Consideration is up 50% or more but purchase conversion still low.

Top concerns and purchase barriers involve batteries, driving range and charging.

EVs buyers have different preferences than internal combustion engine buyers, such as a preference for digital channel, app interaction, pay-as-you-go options, and personalization; they rely heavily on sales staff for advice.

EV infrastructure:

Charging network rollout has been accelerated, but availability is still limited, especially for fast charging station.

Seamless and compelling charging experience is not yet widely available due to high market fragmentation.

Critical enablers still absent for scaling up EV after sales and party operations, such as battery recycling and re-usage capabilities.

EV business case and profitability:

EV business case at risk, since consumers are not yet willing to pay extra cost of EV power train

EVs have up to 60% lower after sales revenues compared to vehicles with internal combustion engines.

**Q4. Explain any four logics used for ranking of web pages. Which among them do you think is efficient?**

**Ans:** Proper content of the Page: The content of the website should be unique and relevant to the website; this is what all the Search Engines look for

‘Content is the King’, it is rightly said as the ranking of the website is dependent on the content of the webpage. When the user searches for a particular content, the content displayed by the website should be relevant and helpful to him to offer him/her good experience. In fact, Search Engines penalize the websites which are not updated regularly with the current information. The webmasters should make sure that while creating a website the content should be logical and should consists of keywords which help the website to be easily searched

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 it’s 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

Backlinks remain an important Google ranking factor, but over the years, Google has learned to weed out the bad links from the good. More links will still result in a higher score, but only if they’re from a number of diverse and authoritative domains.

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.

Content is Still King

Content Quality

High ranking content refers to in-depth content that covers a broad spectrum of its respective subject. Content must provide real value to the user and should incorporate engaging visual content to complement the written content.

Remember, Quality beats quantity every-time. Focus on value, not word count.

Content Length

There is no clear rule of thumb regarding the optimal word count for an article, as it varies per subject. However, we do notice that relatively longer, more comprehensive content typically achieves higher rankings. A study by Neil Patel reveals a correlation between content length and top Google search positions.

**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:**

**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:**