UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, June 2020

Course: E-Enterprise Management   **Semester: IV**
Program: MBA OG   **Time: 3 Hrs**
Course code: DSIT 8002   **Max. Marks: 100**
Instructions:

SECTION A		(5 * 6 Marks - 30 Marks)

Describe in Brief

1	WWW	5	CO 2
2	Dynamic Pricing	5	CO 2
3	OLTP	5	CO 2
4	Machine Learning	5	CO 2
5	IoT	5	CO 2
6	BPR	5	CO 2

SECTION B		(10*5= 50Marks)

1	Elaborate upon the Business Models (traditional & innovative) being employed by E-Commerce organizations.	10	CO 2
2	How does internet change Consumer and Supplier relationships?	10	CO 5
3	How can Information Systems remedy BullWhip effect?	10	CO 4
4	The Internet may not make corporations obsolete, but the corporations will have to change their business models. Do you agree? Why or why not?	10	CO 4
5	In what all ways do entities operating over the internet manage revenue inflows?	10	CO 2

SECTION C		
(Answer the questions based on the attached Case study)		(5*4= 20 Marks)

1	Identify and describe the problem discussed in the case.	4	CO 1
2	How do business intelligence systems provide a solution to this problem? What are the inputs and outputs of these systems?	4	CO 2
3	What management, organization, and technology issues must be addressed by this solution?	4	CO 5
4	How successful is this solution? Explain your answer	4	CO 4
5	Should all school districts use such a data-driven approach to education? Why or why not?	4	CO 4

DATA-DRIVEN SCHOOLS

As more and more reports suggest that American schoolchildren are falling behind those from other countries, improving our schools has become an increasingly urgent mission for the nation. Actually achieving that improvement is a difficult task. One approach gaining sway is more intensive use of information systems to measure educational performance at the individual and school district level and identify problem areas requiring additional resources and intervention. The 139,000-student Montgomery County public school system in Rockville, Maryland, is at the forefront of the push for data-driven DSS in schools. Forty employees at the school district's Office of Shared Accountability generate reports on how many students take algebra in middle school or read below grade level. The district's Edline and M-Stat systems alert principals to individuals with patterns of failing so they can receive extra resources, such as after-school tutoring, study sessions, and special meetings with parents. Earlier this decade, Montgomery County school superintendent Jerry Weast predicted that the increasing stratification between students in what he called the "green zone" (white and wealthy students) and students in the "red zone" (poor and minority students) would weigh down the school district as a whole. Having exhausted other options, administrators initiated a plan to create a data collection system for test scores, grades, and other data useful for identifying students with problems and speeding up interventions to improve their learning and educational performance. Principals access and analyze student performance data to help make instructional decisions over the course of the year, as opposed to only when annual standardized test data arrives. This way, teachers can meet the needs of students who require additional instruction or other types of intervention before they fall behind. Test scores, grades, and other data are entered into the system in real time, and can be accessed in real time. In the past, school data were disorganized, and trends in individual student performance as well as overall student body performance were difficult to diagnose. Kindergarten teachers are now able to monitor their students' success in reading words, noting which words each student struggles with on a handheld device like a Palm Pilot. The device calculates the accuracy with which the student reads each passage and, over time, provides information about what sorts of problems the student consistently encounters. Also, when students begin to deviate from their normal academic patterns, like getting a rash of poor grades, the system sends alerts to parents and school administrators. In many cases, this quicker response is enough to help the student reverse course before failing. Many parents in Montgomery County have expressed concern that the new systems are an excessive and unnecessary expenditure. In the short term, President Obama's stimulus plan provides increased funding to schools over the next two years. Projects like these are likely to become more popular as it becomes clearer that a data-driven approach yields quantifiable results. But will they become the standard in American schools? The long-term sustainability of these systems is still unclear. In Montgomery County, one of the primary goals of the implementation of data-driven systems was to close the achievement gap between white and minority students in the lower grades. Teachers and administrators would use different types of information organized by the DSS to identify gifted students earlier and challenge them with a more appropriate course load of more advanced placement (AP) classes. Data collected on each

child would offer teachers insight into what methods worked best for each individual. The results are very impressive. In Montgomery, 90 percent of kindergartners were able to read at the level required by standardized testing, with minimal differences among racial and socioeconomic groups. These numbers are up from 52 percent of African-Americans, 42 percent of Latinos, and 44 percent of low-income students just seven years ago. Also, the system has effectively identified students with abilities at an earlier age. The number of African-American students who passed at least one AP test at Montgomery has risen from 199 earlier this decade to 1,152 this year; the number of Latino students went from 218 to 1,336. Some critics claim that the emphasis on closing the achievement gap between different student populations is shortchanging gifted students and those with disabilities. "Green zone" parents question whether their children are receiving enough attention and resources with so much emphasis being placed on the improving the red zone. Green zone districts in Montgomery County receive $13,000 per student, compared with $15,000 in the red zone. Red zone classes have only 15 students in kindergarten and 17 in the first and second grates, compared with 25 and 26 in the green zone. School administrators counter that the system not only provides appropriate help for underperforming students, but also that it provides the additional challenges that are vital to a gifted child's development. Other evidence suggests that the gains in reducing the achievement gap earlier in childhood erode as children get older. Among eighth graders in Montgomery County, approximately 90 percent of white and Asian eighth graders tested proficient or advanced in math on state tests, compared with only half of African-Americans and Hispanics. African-American and Hispanic SAT scores were over 300 points below those of whites and Asians. Still, the data-driven implementation has been responsible for some large improvements over past statistics. Some of the red zone schools have seen the most dramatic improvement in test scores and graduation rates. In many ways, the data-driven systems build from the wealth of standardized testing information created by the No Child Left Behind Act passed during the Bush presidency. Some parents and educators complain about the amount and frequency of standardized testing, suggesting that children should be spending more time on projects and creative tasks. But viable alternative strategies to foster improvement in struggling school districts are difficult to develop. It's not just students that are subject to this data-driven approach. Montgomery County teachers have been enrolled in a similar program that identifies struggling teachers and supplies data to help them improve. In many cases, contracts and tenure make it difficult to dismiss less-effective teachers. To try and solve this problem, teachers unions and administrators have teamed up to develop a peer review program that pairs underperforming teachers with a mentor who provides guidance and support. After two years, teachers who fail to achieve results appear before a larger panel of teachers and principals that makes a decision regarding their potential termination or extension of another year of peer review. But teachers are rarely terminated in the program-instead, they're given tangible evidence of things they're doing well and things they can improve based on data that's been collected on their day-to-day performance, student achievement rates, and many other metrics. Not all teachers have embraced the data-driven approach. The Montgomery Education Association, the county's main teachers' union, estimates that keeping a "running record" of student results on reading assessments and

other testing adds about three to four hours to teachers' weekly workloads. According to Raymond Myrtle, principal of Highland Elementary in Silver Spring, "this is a lot of hard work. A lot of teachers don't want to do it. For those who don't like it we suggested they do something else." To date, 11 of 33 teachers at Highland have left the district or are teaching at other Montgomery schools.

Sources: *www.montgomeryschoolsmd.org, accessed October 15, 2010; www.datadriveuclassroom.com, accessed October 15, 2010; John Hechinger, "Data-Driven Schools See Rising Scores, "The Wall Street Journal, June 12, 2009; and Daniel de Vise, "Throwing a Lifeline to Struggling Teachers," Washington Post, June 29, 2009.*