

Name:

Enrolment No:



**UNIVERSITY OF PETROLEUM & ENERGY STUDIES**

**End Term Examination- December, 2018**

**Program/course: MBA -Power**

**Subject: IT Applications in Power Sector**

**Code: DSIT7005**

**No. of page/s:4**

**Semester – : I**

**Max. Marks : 100**

**Duration : 3 Hrs**

**Instructions: Section A is of 20 Marks, Section B is of 20 Marks, Section C is of 30 Marks, Section D is of 30 Marks ( Section D is compulsory)**

**SET1**

**SECTION A**

**Select the correct answer and write True and False wherever it is applicable**

S. No.		Marks	
1	The raw facts and figures are: A) Data B) Information C) Snapshot D) Reports	2	CO1
2	Q. 2. Projections and responses to queries are Information output characteristics associated with: A) DSS B) MIS C) ESS D) TPS	2	CO1
3	Q. 3. Identifying customers and markets using data on demographics, markets, consumer behaviour, and trends is an example of : A) Operational-level sales and marketing information system. B) Knowledge-level sales and marketing information system. C) Management-Level sales and marketing information system. D) Strategic-level sales and marketing information system	2	CO1
4	Q4. Point out the wrong statement: a) Data is factual information for analysis b) BI is a category of database software that provides an interface to help users quickly and interactively scrutinize the results in a variety of dimensions of the data c) Customer relationship management (CRM) entails all aspects of interaction that a company has with its customer d) None of the mentioned	2	CO1

5	Q.5 which of the following is not a characteristic of good information? A) Interchangeability B) relevance C) cost effectiveness D) timeliness	2	CO1
6	_____ Systems keep a track on the daily regular business transactions of the organization. A) Management-level B) Strategic-level C) Executive information D) Operational-level	2	CO1
7	What software organizes, manages, and processes business data concerned with inventory, customers, and vendors? A) customer- oriented software B) data management software C) storage area network D) grid computing software	2	CO1
8	Process of BI A.) Extract Transform Load B) Transform Load Extract C) Extract Load Transform D) None of the above	2	CO1
9	A logical schema? A) is the entire database B) is a standard way of organizing information into accessible parts C) describes how data is actually stored on disk D) All of above	2	CO1
10	IOT enables A) Cost reduction B) Increase in cost C) No effect on cost D) None of the options	2	CO1

**SECTION B**  
**(ANY FOUR TO BE ATTEMPTED)**

Q	1. Role of IOT in smart city	5	CO1,
Q	2. Mention the different kinds of CRM.	5	CO1,
Q	3. How SCADA is useful in Power Industry.	5	CO1,
Q	4. Mention different types of clouds.	5	CO1,

Q	5. What is the significance of smart grids?	5	CO1
<b>Section-C</b> <b>( Any two questions)</b>			
Q1	<p>1. Deere &amp; Company (brand name John Deere) is well known for the manufacture and supply of machinery used in agriculture, construction, and forestry, as well as diesel engines and lawn care equipment. In 2014, Deere &amp; Company was listed 80th in the Fortune 500 America’s ranking and in 2013 was 307th in the Fortune Global 500 ranking. Deere and company has a complex product range, which includes a mix of heavy machinery for the consumer market and industrial equipment which is made to order. Retail activity is extremely seasonal, with the majority of sales made between March and July. The company was replenishing dealers inventory on a weekly basis, by direct shipment and cross-docking operations, from source warehouses located near Deere &amp; Company’s manufacturing facilities. This operation was proving too costly and too slow, so the company embarked on an initiative to achieve a 10% supply chain cost reduction over a four-year period. Suggest appropriate application and justify.</p>	15	CO3
Q2	<p>2. <b>The Challenge</b> :Consumer demand for electricity has never been greater. We rely on it to power our computers, as well as the energy-hungry data centres and cooling systems that support our digital economy. We want it to be clean, for the health of our citizens and for our environment. We expect it to be reliable, so that when we plug in our electric cars, light up our office towers, or recharge our cell phones, it’s readily available. We want it all, and yet North American electricity grids were never designed to satisfy so many demands all at once. Suggest the solution and mention the important aspects to resolve the challenge.</p>	15	CO3
Q3	<p>3. <b>Business Needs</b> : The BMW Group is a global leader in the automotive industry. It has built an international reputation for quality with its BMW, MINI, and Rolls-Royce brands, and the company sells more than 1.5 million automobiles and motorcycles a year. BMW operations in Latin America and the Caribbean are organized in 25 countries across the Western Hemisphere. In 2011, BMW Latin America had to promote the launch of two new lines in the BMW 1 Series of automobiles, and it wanted to kick off a marketing campaign through the Facebook social network. Its target audience matched the profile of typical Facebook users, and the company recognized that a compelling campaign could reach many people very quickly. By using an interactive social media channel, BMW could also collect information about the campaign audience, such as age, gender, career, and education. “We wanted to build an innovative, interactive social media campaign that would</p>	15	CO3

	<p>promote the launch, drive interest in the product features, and collect audience data,” says Beata Bujalska, eMarketing Analyst at BMW Latin America. BMW generally supports marketing initiatives with corporate resources, but it did not have a corporate program that took advantage of social networking for this model. To promote and support the new model launches on Facebook, BMW Latin America needed to quickly develop its own dynamic solution. The company wanted to deliver content and collect user data through the Facebook interface but manage the solution through its own back-end interface. Suggest an application that would enable them to collect, process and analyse user / consumer data.</p>		
<b>SECTION-D</b>			
	<p><b>Answer the following questions from the Case Study: “BUSINESS INTELLIGENCE STRATEGY AT CANADIAN TIRE”</b></p>		
Q1	<ol style="list-style-type: none"> <li>1. What is BI and how can it help Canadian Tire? In the case there are 10 common challenges of BI implementations, which of these would you rate as most important for Eubanks and Wnek at CTC, and why? How would you address them?</li> <li>2. To what degree do you think CTC/CTR’s organizational structure influences the business intelligence initiative? Specifically, what challenges will the shadow IT groups raise for the implementation of the BI strategy? Is this important? Why or why not?</li> <li>3. Compare the exhibits that depict the current versus the future desired BI infrastructure. What challenges exist for the implementation of the BI initiative?</li> <li>4. Given your analysis, develop an implementation plan to project completion. This plan must lay out the priorities and address the major challenges you have identified.</li> </ol>	<p><b>10</b></p> <p><b>10</b></p> <p><b>5</b></p> <p><b>5</b></p>	<b>CO2</b>

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**SET2**

**SECTION A**

Select True and False wherever it is applicable

S. No.		Marks	
1	Wisdom is considered as distilled knowledge	2	CO1
2	Higher up the pyramid, the less structured the decision.	2	CO1
3	TPS is only used for decision making.	2	CO1
4	MIS can support both semi structured and structured decision making.	2	CO1
5	Most management problems, involving decisions have three elements – objectives, decision variables, and constraints.	2	CO1
6	Five year operating plan could be made with the support of DSS.	2	CO1
7	Salesforce.com is an example of SaaS	2	CO1
8	NAS and SAN are technologies for database backup and restore.	2	CO1
9	SCM does not integrate the supply value chain.	2	CO1
10	Business Analytics requires data warehouse to be implemented in an organization.	2	CO1

**SECTION B**

**(ANY FOUR TO BE ATTEMPTED)**

Q	1. Mention the seven components of IT infrastructure.	5	CO1
Q	2. Highlight the difference between BI and BA.	5	CO1
Q	3. Why ERP is required in organization?	5	CO1

Q	4. Significance of smart grids in power sector.	5	CO1
Q	5. Why IT applications are important for Power Sector?	5	CO1
<b>Section-C</b> <b>( Any two questions)</b>			
Q1	<p>1. <b>Business Needs :</b> The BMW Group is a global leader in the automotive industry. It has built an international reputation for quality with its BMW, MINI, and Rolls-Royce brands, and the company sells more than 1.5 million automobiles and motorcycles a year. BMW operations in Latin America and the Caribbean are organized in 25 countries across the Western Hemisphere. In 2011, BMW Latin America had to promote the launch of two new lines in the BMW 1 Series of automobiles, and it wanted to kick off a marketing campaign through the Facebook social network. Its target audience matched the profile of typical Facebook users, and the company recognized that a compelling campaign could reach many people very quickly. By using an interactive social media channel, BMW could also collect information about the campaign audience, such as age, gender, career, and education. “We wanted to build an innovative, interactive social media campaign that would promote the launch, drive interest in the product features, and collect audience data,” says Beata Bujalska, eMarketing Analyst at BMW Latin America. BMW generally supports marketing initiatives with corporate resources, but it did not have a corporate program that took advantage of social networking for this model. To promote and support the new model launches on Facebook, BMW Latin America needed to quickly develop its own dynamic solution. The company wanted to deliver content and collect user data through the Facebook interface but manage the solution through its own back-end interface. Suggest an application that would enable them to collect, process and analyse user / consumer data.</p>	15	CO3
Q2	<p>2. Deere &amp; Company (brand name John Deere) is well known for the manufacture and supply of machinery used in agriculture, construction, and forestry, as well as diesel engines and lawn care equipment. In 2014, Deere &amp; Company was listed 80th in the Fortune 500 America’s ranking and in 2013 was 307th in the Fortune Global 500 ranking. Deere and company has a complex product range, which includes a mix of heavy machinery for the consumer market and industrial equipment which is made to order. Retail activity is extremely seasonal, with the majority of sales made between March and July. The company was replenishing dealers inventory on a weekly basis, by direct shipment and cross-docking operations, from source warehouses located near Deere &amp; Company’s manufacturing facilities. This operation was proving too costly and too slow, so the company embarked on an initiative to achieve a</p>	15	CO3

	10% supply chain cost reduction over a four-year period. Suggest appropriate application and justify.		
Q3	3. <b>The Challenge</b> :Consumer demand for electricity has never been greater. We rely on it to power our computers, as well as the energy-hungry data centres and cooling systems that support our digital economy. We want it to be clean, for the health of our citizens and for our environment. We expect it to be reliable, so that when we plug in our electric cars, light up our office towers, or recharge our cell phones, it's readily available. We want it all, and yet North American electricity grids were never designed to satisfy so many demands all at once. Suggest the solution and mention the important aspects to resolve the challenge.	15	CO3
<b>SECTION-D</b>			
	<b>Answer the following questions</b>		
Q1	<ol style="list-style-type: none"> <li>1. What is BI and how can it help Canadian Tire? In the case there are 10 common BI implementations, which of these would you rate as most important for Eubanks at CTC, and why? How would you address them?</li> <li>2. To what degree do you think CTC/CTR's organizational structure influences the intelligence initiative? Specifically, what challenges will the shadow IT groups raise in the implementation of the BI strategy? Is this important? Why or why not?</li> <li>3. Compare the exhibits that depict the current versus the future desired BI infrastructure. What challenges exist for the implementation of the BI initiative?</li> <li>4. Given your analysis, develop an implementation plan to project completion. This plan should lay out the priorities and address the major challenges you have identified.</li> </ol>	<p>10</p> <p>10</p> <p>5</p> <p>5</p>	CO2