1. Define BPM.

"A framework for organizing, automating, and analyzing business methodologies, metrics, processes, and systems to drive the overall performance of the enterprise. It helps organizations translate a unified set of objectives into plans, monitor execution, and deliver critical insight to improve financial and operational performance." (p. 386)

2. How Does BPM differ from BI? How are they the same?

BPM is an outgrowth of BI and extends it. BI needs to be extended to support BPM properly.

- BPM is promoted and sold by the same companies that market and sell the BI tools and suites.
- BI has evolved so that many of the original differences between the two no longer exist (e.g., BI used to be focused on departmental rather than enterprise-wide projects).
- BI is a crucial element of BPM.

3. What are the four perspectives in BSC?

The four perspectives in BSC are financial, customer, internal business processes, and learning/growth.

4. What does the term *balanced* refer to in BSC?

It refers to the balance in the combined set of measures used in a balanced scorecard. Specifically, the method attempts to achieve a balance between financial and non-financial indicators, between leading and lagging indicators, between internal and external indicators, between quantitative and qualitative indicators, and between short-term and long-term indicators. By so doing it hopes to eliminate some of the defects of traditional management measuring methods, such as the tendency to concentrate almost exclusively on internal, financial, quantitative lagging indicators. (See answer to Review Question 2 of Section 9.7 for more on the dangers of relying exclusively, or even largely, on financial indicators.)

5. What, according to Davenport, are the three factors that an organization has to get right in order to be competitive using business analytics?

A data strategy. Companies have invested many millions of dollars in systems that snatch data from every conceivable source. Enterprise resource planning, customer relationship management, point-of-sale, and other systems ensure that no transaction or other significant exchange occurs without leaving a mark. But to compete on that information, companies must present it in standard formats, integrate it, store it in a data warehouse, and make it easily accessible to anyone and everyone. And they will need a lot of it. For example, a company may spend several years accumulating data on different marketing approaches before it has gathered enough to reliably analyze the effectiveness of an advertising campaign. Dell employed DDB Matrix, a unit of the advertising agency DDB Worldwide, to create (over a period of seven years) a database that includes 1.5 million records on all the computer maker's print, radio, network TV,

and cable ads, coupled with data on Dell sales for each region in which the ads appeared (before and after their appearance). That information allows Dell to finetune its promotions for every medium in every region. *Business intelligence software*. The term "business intelligence," which first popped up in the late 1980s, encompasses a wide array of processes and software used to collect, analyze, and disseminate data, all in the interests of better decision making. Business intelligence tools allow employees to extract, transform, and load (or ETL, as people in the industry would say) data for analysis and then make those analyses available in reports, alerts, and scorecards. The popularity of analytics competition is partly a response to the emergence of integrated packages of these tools.

Computing hardware. The volumes of data required for analytics applications may strain the capacity of low-end computers and servers. Many analytics competitors are converting their hardware to 64-bit processors that churn large amounts of data quickly.

6. Describe how business analytics can be used in supply chain management, customer relationship management, pricing, human capital, product quality, and research and development

Here are some common applications:		
FUNCTION	DESCRIPTION	EXEMPLARS
Supply chain	Simulate and optimize supply chain flows; reduce inventory and stock-outs.	Dell, Wal-Mart, Amazon
Customer selection, loyalty, and service	Identify customers with the greatest profit potential; increase likelihood that they will want the product or service offering; retain their loyalty.	Harrah's, Capital One, Barclays
Pricing	Identify the price that will maximize yield, or profit.	Progressive, Marriott
Human capital	Select the best employees for particular tasks or jobs, at particular compensation levels.	New England Patriots, Oakland A's, Boston Red S
Product and service quality	Detect quality problems early and minimize them.	Honda, Intel
Financial performance	Better understand the drivers of financial performance and the effects of nonfinancial factors.	MCI, Verizon
Research and development	Improve quality, efficacy, and, where applicable, safety of products and services.	Novartis, Amazon, Yahoo