Q1

a) Sales and Marketing Systems
Manufacturing and Production Systems
Window on Organizations
Finance and Accounting Systems
Human Resources Systems

b) 

<table>
<thead>
<tr>
<th>System</th>
<th>Description</th>
<th>Organizational Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Machine control</td>
<td>Control the actions of machines and equipment</td>
<td>Operational</td>
</tr>
<tr>
<td>Production planning</td>
<td>Decide when and how many products should be produced</td>
<td>Management</td>
</tr>
<tr>
<td>Facilities location</td>
<td>Decide where to locate new production facilities</td>
<td>Strategic</td>
</tr>
</tbody>
</table>

c) 1. Transformation of the business enterprise
2. Growth of a globally connected economy
3. Growth of knowledge and information-based economies

Q2

a) Strategic information system is a computer system at any level of an organization that change the goals, process, products, services or environment relationships to help organization gain competitive advantages.

b) can be at three level of strategy:
   business level
   firm level
   industry

c) 

<table>
<thead>
<tr>
<th>level</th>
<th>strategy</th>
<th>Model</th>
<th>IT support</th>
</tr>
</thead>
<tbody>
<tr>
<td>business</td>
<td>(1) to become the low-cost producer, (2) to differentiate your product or service, and/or (3) to change the scope of competition</td>
<td>Value chain</td>
<td>Supply chain management and efficient customer response systems</td>
</tr>
<tr>
<td>firm</td>
<td>synergy</td>
<td>core competency</td>
<td>information technology in these synergy situations is to tie together the operations of disparate business units so that they can act as a whole.</td>
</tr>
<tr>
<td>industry</td>
<td>Cooperation, Standards, licenses</td>
<td>Competitive force model, Network economics</td>
<td>IT-supported consortia, symposia, and communications inter organizational information system</td>
</tr>
</tbody>
</table>

Q3

a) intelligence→design solution→choice→implementation

b) 1) decision model
2) data
3) decision maker
out come knowledge type

certain complete knowledge

risk un complete knowledge with probabilities

uncertain un complete with no probabilities

d)
for each event
minmax=4
maxmin=0

or use for each strategy
minmax=5
maxmin=1

Q4
a) The value of perfect information is the difference between the optimal policy without perfect information and the optimal policy with perfect information
b) 51-4=49

Q5
a)
relational –technical school
behavior school

cognitive school

b) role of manager
relational –technical school: formal function
behavior school: assist org in its question for survival
cognitive school: use sensmaking ability to properly define the situation of the organisation

c)

<table>
<thead>
<tr>
<th>level</th>
<th>Planning support</th>
</tr>
</thead>
<tbody>
<tr>
<td>strategic</td>
<td>Goals establishment</td>
</tr>
<tr>
<td>tactical</td>
<td>Resource allocation</td>
</tr>
<tr>
<td>operational</td>
<td>Day to day scheduling</td>
</tr>
</tbody>
</table>

Q6
a) Ethics refers to the principles of right and wrong that individuals, acting as free moral agents, use to make choices to guide their behaviors.
b) Information rights and obligations. What information rights do individuals and organizations possess with respect to information about themselves? What can they protect? What obligations do individuals and organizations have concerning this information?

I Property rights and obligations. How will traditional intellectual property rights be protected in a digital society in which tracing and accounting for ownership are difficult and ignoring such property rights is so easy?

I Accountability and control. Who can and will be held accountable and liable for
the harm done to individual and collective information and property rights? 
1. **System quality.** What standards of data and system quality should we demand to protect individual rights and the safety of society? 
2. **Quality of life.** What values should be preserved in an information-and knowledge-based society? Which institutions should we protect from violation? 
Which cultural values and practices are supported by the new information technology?

c) | Tread | Impact |
---|---|---|
Computing power doubles every 18 months | More organizations depend on computer systems for critical operations. |
Rapidly declining data storage costs | Organizations can easily maintain detailed databases on individuals. |
Data analysis advances | Companies can analyze vast quantities of data gathered on individuals to develop detailed profiles of individual behavior. |
Networking advances and the Internet | Copying data from one location to another and accessing personal data from remote locations are much easier. |

Q7  

a) **Enterprise analysis** (also called business systems planning) argues that the firm’s information requirements can be understood only by examining the entire organization in terms of organizational units, functions, processes, and data elements. Enterprise analysis can help identify the key entities and attributes of the organization’s data. The central method used in the enterprise analysis approach is to take a large sample of managers and ask them how they use information, where they get their information, what their objectives are, how they make decisions.

The **strategic analysis**, or critical success factors, approach argues that an organization’s information requirements are determined by a small number of critical success factors (CSFs) of managers. If these goals can be attained, success of the firm or organization is assured. CSFs are shaped by the industry, the firm, the manager, and the broader environment. New information systems should focus on providing information that helps the firm meet these goals.

The principal method used in CSF analysis is personal interviews—three or four—with a number of top managers identifying their goals and the resulting CSFs. These personal CSFs are aggregated to develop a picture of the firm’s CSFs. Then systems are built to deliver information on these CSFs.

b)  
(1) automation, (2) rationalization, (3) reengineering, and (4) paradigm shifts

c)  
- Depreciation: it affect profit and the cash flow.
- Break even: determine the volume of activity at which there is no loss or profit.
- Rate of return: computing the profitability of an investment into account the timing of investment and cash flow stemming from investment.