

QUESTION 1

- a) Yes the release of password over Facebook has caused or contributed to the overbooking of the flights. Some members of staff who could see the profile of the manager's assistant might have also received the password and generated tickets to sell on their own. The password could have been delivered in a more secured manner and changed after the days' work. The default password should have been changed just after the IT person had completed the installation of the software. Student should talk about, the fact that FACEBOOK transfer is not secured and suggests a secured way to do the transfer, and also the default password by the installer should have been changed.
- b) **E-commerce**, Commerce conducted over the Internet, the, international computer network linking together thousands of individual networks at military and government agencies, educational institutions, nonprofit organizations, industrial and financial corporations of all sizes, and commercial enterprises. , most often via the World Wide Web.
- c) Agreed with what the expert gave is enough for the answer. Other suggestions like e-commerce are also acceptable.
World Wide Web (WWW or W3) is a collection of globally distributed text and multimedia documents and files and other network services linked in such a way as to create an immense electronic library from which information can be retrieved quickly by intuitive searches.

QUESTION 2

Intranet: An intranet is a computer network that uses Internet Protocol technology to securely share any part of an organization's information or network operating system within that organization. The term is used in contrast to *internet*, a network between organizations, and instead refers to a network within an organization. Sometimes the term refers only to the organization's internal website, but may be a more extensive part of the organization's information technology infrastructure. It may host multiple private websites and constitute an important component and focal point of internal communication and collaboration.

Extranet: An extranet is a private network that uses Internet technology and the public telecommunication system to securely share part of a business's information or operations with suppliers, vendors, partners, customers, or other businesses. An extranet can be viewed as part of a company's intranet that is extended to users outside the company.

Telecommuting: Telecommuting or telework is a work arrangement in which employees enjoy flexibility in working location and hours. In other words, the daily commute to a central place of work is replaced by telecommunication links. Many work from home, while others, occasionally also referred to as nomad workers or web commuters utilize mobile telecommunications technology to work from coffee shops or other locations.

QUESTION 3

- a) i.
- **Trojan horse** is a program that appears to be benign or good but does something other than expected. It is not a virus because it does not replicate itself but is often a way for viruses or other malicious code to be introduced into a computer. An example of Trojan horse is DSNX-05, released in early 2005.
 - A **worm** is an independent computer program that copies itself from one computer to another over a network. Unlike viruses, worms operate on their own without attaching to other computer program files and rely less on human behaviour in order to spread from computer to computer.
 - Virus may also be referred to as infectious coding or malicious coding. It is spread by its attachment to computer files.
- ii. Popular examples: Norton anti-virus, Dr Solomon, McAfee, Panda, AVG anti-virus.
- b) Benefits of a computer network:
- Applications can be shared on a network
 - Devices such as printers can be shared
 - Information can be shared amongst computers that are networked
 - Cost of implementing the sharing device is lower as a few printers can be shared together
 - Better communication
 - Higher level of Information Security
- i. **Wide area networks:** A wide area network (WAN) is a computer network that covers a broad area (i.e. any network whose communications links cross metropolitan, regional, or national boundaries) the largest and most well-known example of a wan is the internet.
- ii. **Metropolitan Area Network:** A metropolitan Area Network (MAN) is a network that connects two or more local area networks or campus area networks together but does not extend beyond the boundaries of the immediate town/city. Router, switches and hubs are connected to create a metropolitan area network.
- iii. **Local Area Network:** require installation of their own communication channels whether by the use of wires or wireless. A local area network consists of a communication link, network operating system, PCs and servers and other shared

hardware devices like printers, scanners, and storage devices all connected within a small geographical area.

QUESTION 4

Four characteristics of a project:

a)

- Has a specific purpose which can be readily defined.
- Is unique because it is most unlikely to be repeated in exactly the same way by the same group of people to give the same results
- Is focused on the customer and customer expectations.
- Is not usually routine work but may contain some routine type tasks
- Is made up of a series of activities that are linked together because they all contribute to the desired result.
- Has clearly defined time constraints – a date when the results are required
- Is frequently complex because the work involves people in different departments and even on different sites
- Has to be flexible enough to accommodate changes as the work proceeds
- Involves many unknowns within the work itself, within the skills of the people doing the work and in the external influences on the project
- Has a cost constraint which must be clearly defined and understood to ensure the project remains viable.
- Provide a unique opportunity to learn new skills
- Forces people to work in different ways
- Involves risks at every step of the process

b) Off-the-shelf software

Advantages

- Not expensive
- Ready in time
- Can suite many situations

Disadvantages

- Does not satisfy any specific process
- Does not promote proprietary anyone can get it.
- Can't be customized with ease

Bespoke software

Advantages

- Does satisfy any specific process
- Does promote proprietary anyone can get it.
- Can be customized with ease

Disadvantages

- expensive
- Not Ready in time
- Can't suite many situations

QUESTION 5

Selection of information systems

a.

- Dynamic response to environmental change
- The management style
- The structure of the organisation
- Information intensity of the operations of the business

b. **PORTER'S COMPETITIVE FORCE MODEL**

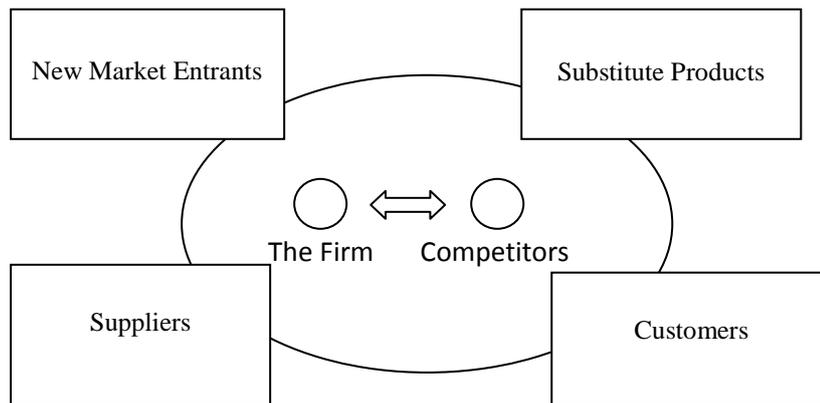
Arguably, the most widely used model for understanding competitive advantage is Michael Porter's **competitive forces model** (see Figure 3 – 10). This model provides a general view of the firm, its competitors, and the firm's environment. We described the importance of a firm's environment and the dependence of firms on environment environments. Porter's model is all about the firm's general business environment. In this model, five competitive forces shape the fate of the firm.

Traditional Competitors

All firms share market space with other competitors who are continuously devising new, more efficient ways to produce by introducing new products and services, and

attempting to attract customers by developing their brands and imposing switching costs on their customers.

Figure 3 – 10 PORTER'S COMPETITIVE FORCES MODEL



In Porter's competitive forces model, the strategic position of the firm and its strategies are determined not only by competition with its traditional direct competitors but also by four forces in the industry environment: new market entrants, substitute products, customers and suppliers.

New Market Entrants

In a free economy with mobile labour and financial resources, new companies are always entering the marketplace. In some industries, there are very low barriers to entry, whereas in other industries, entry is very difficult. For instance, it is fairly easy to start a pizza business or just about any small retail business, but it is much more expensive and difficult to enter the computer chip business, which has very high capital costs and requires significant expertise and knowledge that is hard to obtain. New companies have several possible advantages: They are not locked into old plants and equipment, they often hire younger workers who are less expensive and perhaps more innovative, they are not encumbered by old, worn-out brand names, and they are **more hungry** (more highly motivated) than traditional occupants of an industry. These advantages are also their weakness: They depend on outside financing for new plants and equipment, which can be expensive; they have a less experienced workforce; and they have little brand recognition.

Substitute Products and Services

In just about every industry, there are substitutes that your customers might use if your prices become too high. New technologies create new substitutes all the time. Even oil has substitutes: Ethanol can substitute for gasoline in cars; vegetable oil for diesel fuel in trucks; and wind, solar, coal, and hydro power for industrial electricity generation. Likewise, Internet telephone service can substitute for traditional telephone service, and fibre-optic telephone lines at the home can substitute for cable TV lines. And, of course, an Internet music service that allows you to download music tracks to an iPod is a substitute for CD-based

music stores. The more substitute products and services in your industry, the less you can control pricing and the lower your profit margins.

Customers

A profitable company depends in large measure on its ability to attract and retain customers (while denying them to competitors), and charge high prices. The power of customers grows if they can easily switch to a competitor's products and services, or if they can force a business and its competitors to compete on price alone in a transparent marketplace where there is little product differentiation, and all prices are known instantly (such as on the Internet). For instance, in the used college textbook market on the Internet, students (customers) can find multiple suppliers of just about any current college textbook. In this case, online customers have extraordinary power over used-book firms.

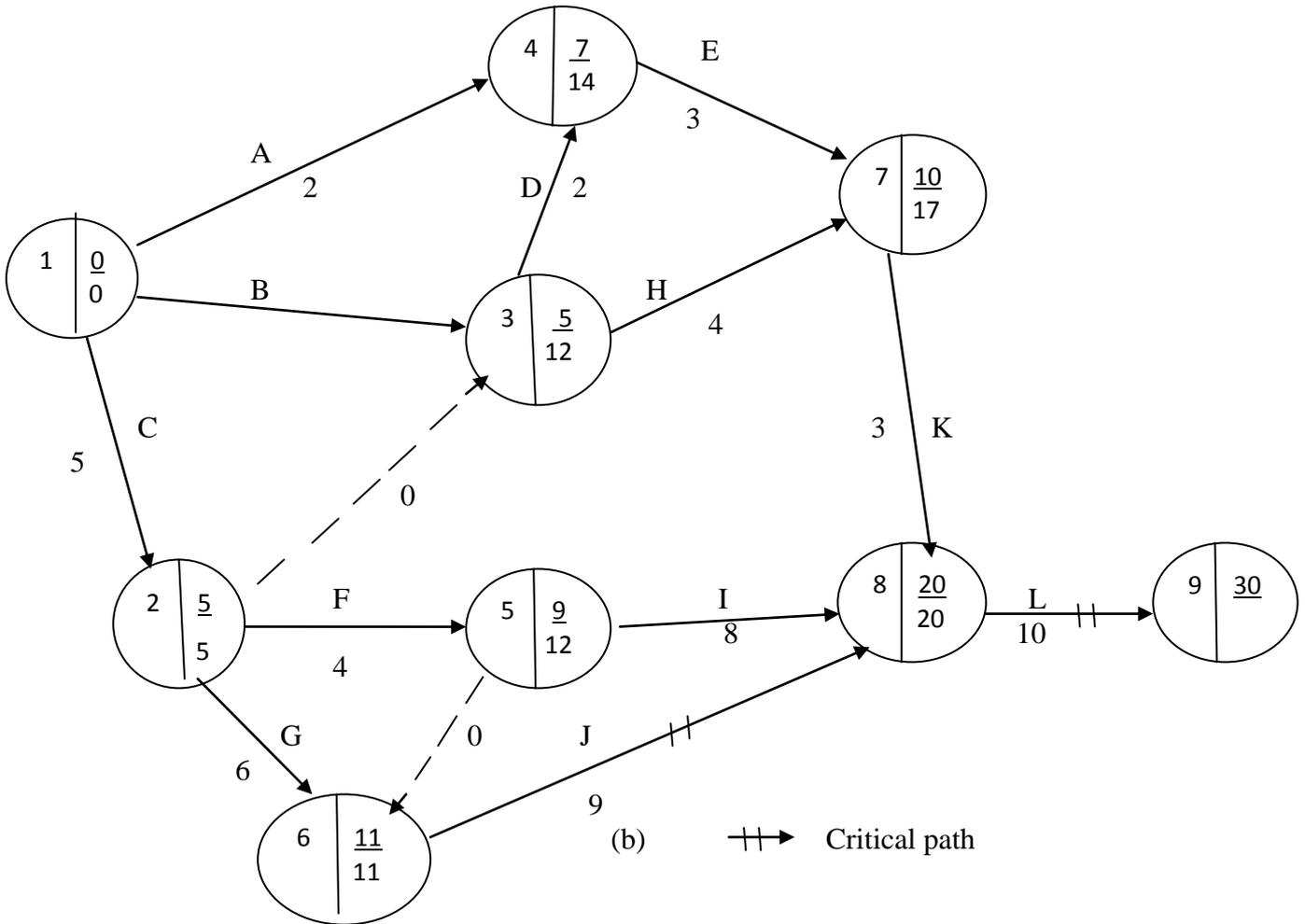
Suppliers

The market power of suppliers can have a significant impact on firm profits, especially when the firm cannot raise prices as fast as can suppliers. The more different suppliers a firm has, the greater control it can exercise over suppliers in terms of price, quality, and delivery schedules. For instance, manufacturers of laptop PCs almost always have multiple competing suppliers of key components, such as keyboards, hard drives and display screens.

QUESTION 6

Activity on Node Method

(a)



(b) \Rightarrow Critical path

Paths to Completion

AEKL	18
BDEKL	22
BHKL	21
..... DEKL	23
..... HKL	22
CFIL	27
GGJL	30

(c)

Total float = LET - EET - X

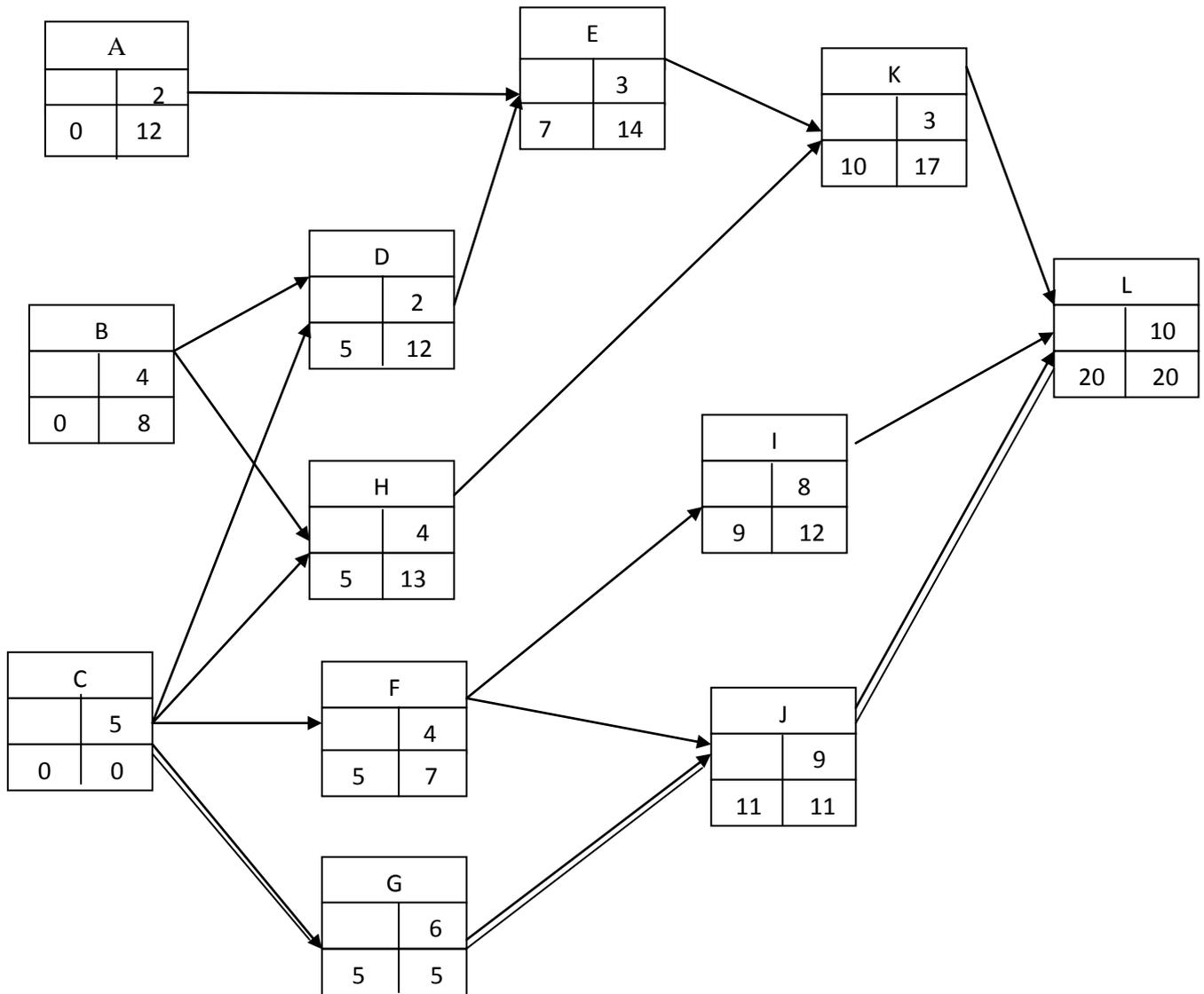
Float C = $5 - 0 - 5 = 0$

Reason Float on Critical Activity is 0 (Zero)

Float G = $11 - 5 - 6 = 0$

J = $20 - 11 - 9 = 0$

H = $17 - 5 - 4 = 8$ weeks



- a) Correct activity with times
- b) Critical path is CHJH (Shown with double arrows)
- c) Floats for:
 $C = 0 - 0 = 0$ $G = 5 - 5 = 0$ $J = 11 - 11 = 0$ (All critical activities)
 $H = 17 - 5 - 4 = 8$ weeks (non-zero because is not a critical activity)

QUESTION 7

a)

- i. The “overlap “is called coupling and the removal is called de-coupling.
- ii. Coupling occurs when two system overlap or are linked to one another. When the subsystems are linked any amendments effected on any one of them must suit the others, else the entire arrangement may fail to work well.

Often it becomes necessary to minimise this inter-dependence, in order to reduce the extent of the integration of the sub-system. This minimisation is referred to as “de-coupling”. Its aim is to limit the extent of direct dependence of the sub-systems on each other.

iii.

Advantages of de-coupling:

- Each specific sub-system may now attempt to achieve a higher level of initiative and flexibility.
- Management of each sub-system is now able to take advantage of the increased flexibility made available.

Disadvantage of de-coupling:

- Each sub-system may attempt to attain its own specific target objectives, to the detriment of others (sub-optimisation.)
- Costs incurred in de-coupling may be high (e.g. where a firm de-couples by holding a special stock to act as a buffer between this sales sub-system and production sub-system).

The Qualities of Good Information

b) Good information is one that has value to the user. It is useful to the recipient, can be relied on, and helps in the decision making process. The qualities of good information include:

- i) Accuracy – The absence of any material error. Accurate information may not necessarily mean the absence of any error at all, though the situation will be better if there is no error. However, any error present in the information should be permissible and not be such as will adversely affect the decisions that may be made with the information.

- ii) **Completeness** – Complete information is one that contains all that is required for the necessary decisions to be made, i.e., there should be no material omission.
- iii) **Timeless** – Information can only be of use if it is received in time to influence the decision making process. Sometimes this means a compromise in terms of accuracy and completeness. Information received later than the desired time may be useless in the hands of the recipient. Timely information should be made available not later than it is required.
- iv) **Relevance** – Information must be appropriate to the problem under consideration. The information given to the decision maker should contain only the details that are required for the purpose for which the information is desired.
- v) **Understandability** – Information which is easy to understand is more likely to produce good and quick results. Because managers are busy, they do not want to spend unnecessary time trying to interpret badly presented reports. It is pointless to present information in a way that assumes knowledge and abilities that the recipient could not be expected to possess.
- vi) **Significance** – For information to be simple and understandable, significant factors must be highlighted, screening out any facts which are not important enough to affect the decision-making process.

Significant information is both new and important for the decision-making process.
- vii) **Briefly** – Good information should not be unnecessarily voluminous, otherwise, there will be an information overload, which, in itself, may constitute a barrier to effective understanding of the message it contains. It should be brief, while taking care of all essential detail.
- viii) **Reliability** – Information is reliable if the source is credible and the approach adopted to provide it is valid and acceptable.