



ICM

SEPTEMBER 2015

MANAGING COMPUTER SYSTEMS

Instructions to candidates:

- a) Time allowed: Three hours (plus an extra ten minutes' reading time at the start – do not write anything during this time)
 - b) Answer any FIVE questions
 - c) All questions carry equal marks. Marks for sections of questions are shown in []
 - d) Mark allocation should determine the length of your answer and the time you spend on it. Generally, one mark is awarded for each valid point
 - e) Read all sections of any question before attempting any part of it
 - f) Ensure that you pay particular attention to words underlined, in CAPITALS or in **bold**. FEW OR NO MARKS will be awarded to any question where these are ignored
 - g) In questions requiring reference to particular institutions or applications, your answer must reflect this. Answers without these references will score few marks
 - h) No computer equipment, books or notes may be used in this examination
-
1. The control process in management is normally considered to be the FOUR elements listed below. Take EACH of these in turn and discuss the features that should be in place in an organisation in order to develop a good control policy in a company.
 - a) Setting standards
 - b) Measuring performance
 - c) Comparing results against standards
 - d) Taking corrective action [20]

 2. A website, *LearnItOnLine.com*, offers its members interactive tuition in a range of computing subjects and the opportunity to sit an exam and gain a certificate. Users create an account by filling in an online form with name, address, date of birth and payment details. Members can book a course which is delivered online. At the end of the course they can then pay to sit the exam (also online) if they wish. Members can buy as many courses as they like.
 - a) Discuss in detail the potential computer crimes that could affect the subscribers of the website. [6]
 - b) Describe ways that *LearnItOnLine.com* can protect its users and also ways that the members can safeguard themselves against these crimes. [8]
 - c) When people subscribe to *LearnItOnLine.com* they need to submit a certain amount of personal information. Discuss a **law** that *LearnItOnLine.com* have to comply with to ensure that this information is safe. [2]
 - d) Discuss and explain TWO of the **rights** of the users under this law. [4]

 3. For EACH of the following, explain how computers can assist the business and the manager. Name particular software application packages and how they would be used.
 - a) Budgeting
 - b) Controlling
 - c) Decision making
 - d) Forecasting
 - e) Planning [4 each]

 4. It is difficult to imagine a life without technology – at home, at work and outside. Discuss **FOUR significantly different** areas of IT that affect **one person** during the course of a week. For EACH explain how that aspect of IT benefits the person and the disadvantages they would endure without it. Base your discussion on **one specific** type of person, e.g. a student, a working mother, a shop owner, etc. [5 each]

 5. Few businesses can run successfully without the use of a computer system. With particular reference to a **small family-run hotel** employing up to 20 staff:
 - a) Discuss the advantages that the use of computers can bring. [15]
 - b) What problems might the hotel encounter when implementing a computer system for the first time? [5]

continued overleaf

6. A manufacturing company is contracted to build a certain piece of machinery. If the project over-runs in time, the manufacturer will endure additional costs to continue employing the appropriate engineers and production staff. The company decides to use a PROJECT CONTROL software program to assist in planning and controlling the project.
- a) Describe the steps the project controller will take in setting up the computer model. [5]
 - b) Describe the MANY benefits of using a computer to control the project compared with manual methods. [7]
 - c) The controller will use the term **FLOAT** frequently during the project. Explain what this is AND the use he will make of it. [4]
 - d) The controller would not normally use project control software for a small project. Explain why this is so and how he decides when it would be appropriate. [4]
7. A number of different tools are used in business to manage and process information. With specific reference to a **college**, describe FOUR of those tools listed below:
- Relational database
 - Artificial intelligence
 - Expert systems
 - Internet
 - Data mining systems
 - Predictive modelling
- For EACH – provide a description of what it is, how it is used and how it would particularly benefit a **college**. [5 each]
8. Training is a crucial part of development within any organisation, particularly in IT which changes rapidly. Existing staff need training as well as new employees. Some training is carried out in the workplace ‘on-the-job’, sometimes people are sent away on training courses ‘off-the-job’.
- For **both** ‘on-the-job’ and ‘off-the-job’ training discuss the following:
- Different training methods
 - Advantages of EACH method
 - Disadvantages of EACH method
- Consider EACH of the above with reference to the company and also to the employee being trained. [20]