

ITGS Template

For Examinations May 2012 Onwards

Questions for Analyzing Social Impacts

What are the social impacts associated with a particular IT development?

- How did the IT development emerge?
- Who are the stakeholders—individuals, institutions, societies who initiate and control the IT developments and are affected by them?
- What are the advantages and disadvantages for the stakeholders?
- What are the social impacts of the IT development on human life? These may include some or all of the following areas: economic, political, cultural, legal, environmental, ergonomic, health and psychological.
- What feasible solutions can be applied to overcome problems?

Questions for Analyzing Ethical Issues

What are the ethical issues associated with a particular IT development?

- Who is responsible?
- Who is accountable?
- What policies, rules or laws apply to the scenario?
- What are the alternative ethical decisions?
- What are the consequences of these decisions?

Strand 1: Social / Ethical Issues

Social/ethical considerations linked to specified IT developments.

Twelve issues that must be studied are:

- 1.1 Reliability and integrity
- 1.2 Security
- 1.3 Privacy and anonymity
- 1.4 Authenticity
- 1.5 Intellectual property
- 1.6 The digital divide and equality of access
- 1.7 Surveillance
- 1.8 Globalization and cultural diversity
- 1.9 Policies
- 1.10 Standards
- 1.11 People and machines
- 1.12 Digital citizenship

HL Extension topics and Case Study

Strand 2: Applications to Specific Scenarios

Scenarios based on real life situation must be used when addressing specified IT developments.

The **six themes** that must be studied :

- 2.1 Business and employment
- 2.2 Education and training
- 2.3 Environment
- 2.4 Health
- 2.5 Home and leisure
- 2.6 Politics and government

HL Extension topics and Case Study

Stakeholders

Strand 3: IT Systems

The terminology, concepts and tools relating to specified IT developments. The **nine topics** that must be studied :

- 3.1 Hardware
- 3.2 Software
- 3.3 Networks
- 3.4 Internet
- 3.5 Personal and public communications
- 3.6 Multimedia/digital media
- 3.7 Databases
- 3.8 Spreadsheets, modelling and simulations
- 3.9 Introduction to project management

HL Extension- two topics that must be studied :

- 3.10 IT systems in organizations
- 3.11 Robotics, artificial intelligence and expert systems

Information systems specific to annual case study

Analyzing a News Item or Specific Scenario

Source of the New Item or the Specific Scenario

Strand 1: Social and Ethical Significance

- Describe social / ethical impacts (present a balanced point of view using ITGS vocabulary and concepts) .
- Describe one major problem emerging from the impacts.
- Evaluate feasible solutions to problems emerging from the scenario and evaluate why one is a better solution over the others.

Strand 2: Applications to Specific Scenarios

- Identify one of the six specific scenario themes.
- Describe the scenario: who, what, when, where and how (include the names of companies, people, and their positions).

Stakeholders

- Identify the main stakeholders: individuals, business(es), organization(s) or institution(s) in the scenario.
- Describe how the main stakeholders are affected by the IT developments and / or proposed solutions.

Strand 3: IT Systems

- Identify all people, hardware, software, networks, communication technologies, data, methods, policies relating to the IT systems in the scenario.
- Define IT vocabulary related to the scenario.
- Describe IT concepts and processes (step-by-step how IT systems work).