

ETF

Paper Structure

Emerging Technologies

- Assess the current state of technologies
- Analyze the importance of Emerging Technologies
- Compare current state with Emerging Technologies and future impact
- Understand the concepts of software frameworks applicable to these technologies

Emerging technologies

- What do we mean by “emerging technologies”?
- *“New technologies that are currently developing or will be developed over the next five to ten years, and which will substantially alter the business and social environment. These include information technology, wireless data communication, man-machine communication, on-demand printing, bio-technologies, and advanced robotics.”*

[1] <http://www.businessdictionary.com/definition/emerging-technologies.html>

Emerging Technologies

- The MIT Technology Review has listed their top ten predictions since 2001
- 2020 list comprises the following:

Unhackable internet	Hyper-personalized medicine
Digital money	Anti-aging drugs
AI-discovered molecules	Satellite mega-constellations
Quantum supremacy	Tiny AI
Differential privacy	Climate change attribution

Source: <https://www.technologyreview.com/lists/technologies/2020/>

Topics

LAWS

IOT

3D Printing

Smart Cities

AI

Digital currency

Cloud Computing

Quantum Computing

Frameworks

JS

Bootstrap Framework

jQuery

Ajax

JSON

NoSQL

Sample Question

A local Institute for Art Design wants you to develop a website for a picture contest. From the initial requirement gathering you learn the following:

The contest will be run in two rounds. In the first-round students should be able to upload 2 of their creations. General public should be able to create an account where they can login, leave comments and vote for their favourite picture. In the second round the ten best pictures from the first round are presented on the website, where they can vote or add any comment without login to the site. The website should be easy to navigate and access.

Using the description of the website, answer the questions that follow

- a. Propose a suitable page structure with the description of the content for each page. (4 marks)
- b. Discuss 2 examples of consistent style using the structure of the site. (4 marks)
- c. Write a sample Document Object Model for the home page. (3 marks)
- d. Discuss how your website could be mobile responsive by taking 2 examples from the proposed website. (4 marks)

Sample Question

BBC - Homepage x +

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Using the website, answer the questions that follow

- a. Explain the role of HTML (2 marks).
- b. Explain the role of jQuery with 2 example (4 marks).
- c. Explain the role of Ajax with an example (4 marks).