

Tipologia A**Short essay (150-200 words)**

1-9: Modules

D1: Dossier 1, D2: Dossier 2

1	The environment and pollution: human errors in the past and present day remedies.
2	The consequences of urban growth: advantages and disadvantages.
3	Eco-living: alternative energy sources and household energy-saving strategies.
4	Sustainable building materials and other strategies to keep ecological impact to a minimum.
5	The art of design: the importance of the different stages when designing a project.
6	The aim of building renovation: what it involves and what it should achieve.
7	Energy-saving strategies and passive solar building design.
8	The history of civil engineering and its role in modern day building projects.
9	A career as a quantity surveyor or building surveyor: UK qualifications and main job tasks.
D1	Roman heritage in Britain: London and Bath.
D2	The Golden Gate Bridge: how technology won over scepticism.

Tipologia B

Open questions (max 10 lines)

1-9: Modules

D1: Dossier 1, D2: Dossier 2

1	<p>What provokes an ecological crisis and what have been the consequences of recent crises?</p> <hr/> <hr/> <hr/>
2	<p>What factors do people usually take into account when choosing where to live?</p> <hr/> <hr/> <hr/>
3	<p>What is the aim of sustainable architecture and what two basic principles does it follow?</p> <hr/> <hr/> <hr/>
4	<p>What are the advantages and disadvantages of using brick as a building material?</p> <hr/> <hr/> <hr/>
5	<p>How does GPS work and why is it useful in surveying?</p> <hr/> <hr/> <hr/>
6	<p>When building a roof, what are the advantages and disadvantages of thatching?</p> <hr/> <hr/> <hr/>
7	<p>What heating systems are available on the market and how do they work?</p> <hr/> <hr/> <hr/>
8	<p>How many kinds of bridges are there and how are they made?</p> <hr/> <hr/> <hr/>
9	<p>What is the role of a structural engineer in the construction industry?</p> <hr/> <hr/> <hr/>
D1	<p>Who introduced the Gothic style to Britain and what are its characteristics?</p> <hr/> <hr/> <hr/>
D2	<p>Apart from going to the opera, what else can you do at the Sydney Opera House?</p> <hr/> <hr/> <hr/>

Tipologia C

Multiple Choice

1	<p>What is the main source of air pollution in the world?</p> <p>A Stationary pollution sources B Industrial sources C Agriculture D Transport</p>
2	<p>Downgrading of a neighbourhood happens when...</p> <p>A there is a greater demand for accommodation. B population density increase leads to intense use of structures. C people with young families move away. D redevelopment creates accommodation with government subsidised rents.</p>
3	<p>What is meant by 'Green Building'?</p> <p>A Constructions built in harmony with nature and resources. B A set of buildings sprawled over a vast green area. C Houses or flats in the city centre with roof gardens. D Residential areas built near a golf course.</p>
4	<p>What is the disadvantage of using a steel frame to construct a building?</p> <p>A It deteriorates easily. B It can only be used for exterior infrastructures. C It doesn't last a long time. D It is not a good insulator.</p>
5	<p>What kind of documentation should provide information to help people decide if they wish to buy a property or not?</p> <p>A Building report B Architectural report C Architectural brief D Architectural drawings</p>
6	<p>Which of the following is <u>not</u> a characteristic of deep foundations?</p> <p>A They can be made of timber. B They are useful if there are site constraints. C They transfer the load to soil at the base of the substructure. D They are suitable for large design loads.</p>
7	<p>British plugs and sockets...</p> <p>A have two vertical pins and one horizontal one. B have a larger vertical pin for an earth connection. C have two horizontal rectangular pins for phase and earth connection. D have a larger vertical pin for neutral.</p>
8	<p>What were the first British schools like in the 19th century?</p> <p>A Full of light with multivalent spaces. B Friendly, comfortable and stimulating. C Four-storey buildings with central corridors. D Equipped with libraries, laboratories and green areas.</p>
9	<p>What are the two most important subjects to study to become an engineer?</p> <p>A mathematics and science B mathematics and technical drawing C mathematics and geography D mathematics and computer science</p>
01	<p>Which of the following statements is <u>not</u> true of Westminster Abbey?</p> <p>A It contains the shrine of Edward the Confessor. B Its construction was finished in the 16th century. C It is still a place of worship nowadays. D Henry III was the first king to be crowned there.</p>
02	<p>The Taj Mahal...</p> <p>A is a cathedral in India near the River Jamuna. B is a combination of Persian and Greek architecture. C is a symmetrical building with an arch-shaped doorway. D was built during the 16th century and took 20 years to complete.</p>

Tipologia B con testo

The Shard London Bridge by Renzo Piano



This London skyscraper designed by Renzo Piano and officially opened in July 2012, is an irregular glass pyramidal shape and is located in the Southwark area, south of the River Thames.

Steel beams and concrete form the core of the building, which was then covered in glass and topped with a 66 metre spire. There is a viewing gallery and open-air observation deck on the 72nd floor and at a height of 245 metres, it qualifies as the highest in the UK. It was built to replace Southwark Towers, a 24-storey office block built in 1975. Its slender form reminds us of traditional English church steeples

and the 11,000 panes of glass reflect sunlight and the sky and change the appearance of the building according to the weather.

The Shard, with its 87 floors, will house offices, luxury residences, restaurants and shops as well as a 5-star hotel, and is expected to attract millions of visitors to London every year. The whole area around the Shard is being revamped with a new square and public green areas and a more efficient transport system, a project which should generate more than 300 jobs for the local community.

The Shard was constructed according to sustainable building standards and is energy efficient. The glass panels absorb energy from the sun and it is estimated that the building will be able to save 35% on energy consumption. It also looks as if this glass splinter will force Londoners to leave their cars at home and use public transport, as there are only 40 parking places, which will certainly benefit the environment and will be of no hardship since nearby there is a railway station, underground and bus service.

Read the text and answer the questions.

- 1 What materials were used in the construction of the Shard?
- 2 What will the building be used for?
- 3 What is being done in the area where the Shard is located?
- 4 Why do you think Renzo Piano decided to include only 40 parking places in his project?

Architecture: a Male World

Recent statistics carried out by AIA have shown that only 15% of architects are women and just 1% are black. Some women have obtained worldwide recognition for their architectural designs, but these are exceptions.

Deborah Berke, professor of architectural design at Yale University, and founder of a firm which employs 33 people, has her own ideas. In her company for instance, she employs almost as many women as men. In this profession dominated by white men, she agrees that women and people from minority ethnic groups have to fight harder. In her opinion the absence of women is not only due to child-raising duties, but because women feel discouraged by small incidents which happen repeatedly. A low salary, or a woman finding herself being ignored in a room which is 90% male, are just two examples. Berke says these recurring

obstacles end up driving women and ethnic minorities out of the profession.

In her criticism of the system Berke stresses however, that she does not wish to reduce

male architects to a stereotype either, as the issue touches various faults in the profession. Reducing student debt for example would help lower-income students, probably from minority groups, to be able to continue with their studies rather than dropping out. Finally members of this profession need to be more patient and open-minded and realise that change is necessary to have more diversity in the field of architecture.



Read the text and answer the questions.

- 1 What has the AIA survey proven?
- 2 What practical measures has Deborah Berke taken to try and redress this situation?
- 3 According to Berke, why are there so few women architects?
- 4 What can be done to help minority ethnic groups to enter the profession?

Tipologia B con testo

AIA Awards 2012 Diversity Scholarships



The American Institute of Architects and the American Architectural Foundation have awarded scholarships to two women and two men this year. Each student will receive up to \$4,000 which can be renewed from year to year for up to a total of five years. This joint funding effort by these two architectural bodies aims to help minorities or those with financial problems to continue their studies and get their accredited professional degree in architecture. By doing this they are encouraging diversity in the profession of architecture. The committee in charge of examining hopeful bursary applicants had to sift their way through 150 applications

before choosing the four winners, Devlin, Gallion, Niga and Tavares. Dominique Devlin took part in ACE Mentors, a high school architecture mentorship programme and will go on to study at Rice University. Calvin Gallion, who will attend Tulane University, is interested in specialising in buildings which are weather-resistant and weatherproof. Rami Niga from Baghdad, is interested in following a career in sustainable architecture and will attend University of Detroit Mercy. Last but not least, Rosibel Tavares, who graduated from her high school in New York, will continue studying at the Pratt Institute.

Along with this same theme of diversity awareness, AIA also runs a programme which gives recognition to companies which in some way are making an effort to include women and minority groups among their employees.

Read the text and answer the questions.

- 1 How much money can the students receive in total if their scholarship application is renewed annually?
- 2 Who is this scholarship for?
- 3 Will all four students go to the same university and study the same branch of architecture?
- 4 What else is AIA doing to try and introduce diversity into architecture?

Businesses Back LEED

The U.S. General Services Administration (GSA) is striving to find a green-building certification system to evaluate all federal government buildings. In the meantime more than 1,200 organisations and businesses have signed a letter sent to GSA members asking them to continue using the LEED green-building rating system.

The GSA carries out a review of green-building certification systems every five years as stipulated by the Energy Independence and Security Act (EISA) in 2007. Therefore the construction and design industry were asked their opinion on the existing green-building system called LEED as part of the review of the situation. This resulted in the formation of the American High-Performance Buildings Coalition whose aim is to sustain green-building rating systems developed according to consensus-based processes in conformation with the American National Standards Institute (ANSI).

On July 26, during a GSA listening session, representatives from the coalition spoke out against the use of LEED as the dominant system. In stark contrast with this reaction, the more recent letter to the GSA managed to gather 1,200 signatures from various sectors such as real estate companies, organisations such as the American Architectural Foundation, and cities like Chicago, San Francisco and Philadelphia. The letter points out how GSA has managed to reduce costs, improve efficiency and eliminate waste in the federal building portfolio. Since the previous EISA review, the GSA has been using LEED as its rating system of choice but this is not stated specifically in the letter. However the letter underlines the fact that if GSA were to use some other form of rating, then prices would go up in the building and leasing process throughout the building industry.



Read the text and answer the questions.

- 1 What is the GSA looking for?
- 2 How have people shown their preference for LEED?
- 3 What did the coalition recommend at the meeting with the GSA?
- 4 What reasons are expressed in the letter in favour of LEED?

Tipologia B con testo

Who Made the 2012 Stirling Prize Shortlist?

There is much speculation as to who will win the Royal Institute of British Architects Stirling Prize for excellence in architecture which is awarded every year by RIBA. The London 2012 Olympic Stadium is obviously the favourite and is getting all the publicity, but despite this, some people are keeping their eye on the other five projects which are on the shortlist, which are: the **Hepworth Wakefield** in Yorkshire, an inspiring new art gallery for contemporary art and one of the largest in the United Kingdom; the **Lyric Theatre** in Belfast which has been part of Northern Ireland's cultural heritage for over 50 years and has been nominated for work done on it by architect John Tournery and his team; **Maggie's Centre** in Gartnavel, Glasgow, a cancer care centre linked to the hospital housed in a one-storey building set in beautiful landscaped gardens which has been created to provide cancer patients with the emotional, practical and social support they need; the **New Court** in London, the OMA-designed headquarters for the Rothschild Bank, a ten storey steel

and glass building completed in 2011; finally, **Sainsbury Laboratory** in Cambridge, an outstanding building set within Cambridge University Botanical Gardens.



Lyric Theatre, Belfast

British bookmaker

William Hill believes that the Hepworth Wakefield has the best chance of winning with three-to-one odds. Then comes the Lyric Theatre and the New Court at four-to-one odds, followed by the Olympic Stadium which is given a five-to-one chance of winning. Maggie's Centre and the Sainsbury Laboratory do not stand a chance of winning according to the bookmakers. The winner will be announced on 13th October.

Read the text and answer the questions.

- 1 How many projects are on the Stirling Prize shortlist and what kind of prize is it?
- 2 Which two projects have to do with the arts?
- 3 What is the New Court in London like and what will it be used for?
- 4 According to the bookmakers, who should people be betting on to win?

Gehry's Make it Right Home Opens in New Orleans

The well-known architect, Frank Gehry has just completed the first 'Make it Right' home in an area of New Orleans called the Lower 9th Ward which was totally destroyed by Hurricane Katrina in 2005. 'Make it Right' was founded in 2007 to build sustainable homes for people in need.

The construction covers an area of 1,780 square feet with a spacious garden area. Other features of the building include a waterproof solar canopy on the roof terrace plus six more canopied porches. The house has interior and exterior staircases and the bedroom windows are bigger than normal. The bathrooms on both levels of the house are stacked, as are the staircases, and construction efficiency was achieved by creating an open-plan area for the kitchen, dining and living areas. Furthermore, many sustainable materials and technologies have been used in its construction, such as a fibre-cement board which is

resistant to termites, cracks, rot and hail damage and should last 50 years. The wooden framing chosen for the house has been treated to resist moisture, mould, fungus and termites. Energy from the sun is produced by solar modules which also act as a waterproof canopy which gives shade on the two rooftop terraces. The 26-gauge metal roofing used on the lower porches absorbs less heat so the building stays cooler. Low-E windows also help to keep the building fresh in summer and cosy in winter. Water heating costs are 50% less expensive due to the installation of tankless water heaters which are 80% more energy efficient than conventional heaters. Inside, recycled raw materials have been used for cupboards and worktops. Finally, even the carpeting can be recycled in this super sustainable home.



Read the text and answer the questions.

- 1 What is the aim of the 'Make it Right' project?
- 2 Is the house divided into several rooms downstairs for eating and watching TV?
- 3 Why was fibre-cement used in construction?
- 4 Why does it cost so little to run this kind of house?