PROVA ESTRATTA ORALE

PROVA 2

QUESITO 1

Il candidato tratti della modifica dei contratti in corso di esecuzione ai sensi dell'art. 120 del D.Lgs. 36/2023

QUESITO 2

Il candidato tratti della sanatoria in ambito edilizio.

QUESITO 3

Il candidato parli della conferenza dei servizi e della conferenza dei servizi semplificata ai sensi dell'art. 14 e seguenti della Legge 241/1990

QUESITO N°2 - Applicazioni informatiche
Il candidato tenuto conto dei dati sotto riportati costruisca su di un foglio di calcolo il quadro economico finale

IMPORTO LAVORI	45000
STIMA COSTI DELLA SICUREZZA	2000
SPESE PROGETTUALI	2300
INCENTIVO ART 45 D.LGS36/2023	
IVA 10%	
SPESE PER IMPREVISTI 5%	
SPESE PER PROVE DI LABORATORIO ART 116 COMMA 1 D.LGS 32/23	600

UNIONE DEI COMUNI MONTANI DEL CASENTINO
POPPI (Ar)

Prova lingua inglese - 2) History

A Windcatcher, also known as wind tower, wind scoop, Malqaf, or Badgir, is a traditional cooling architectural element that has been used for thousands of years in countries with severe hot climates. Some historians and archeologists credit Persians as the inventors of windcatchers, after discovering ruins of a 3000 BC Persian fire temple that features chimney-like structures with no trace of ashes. Others believe they were first built in the North African deserts, particularly in Egypt, since paintings that date back to 1300 BC showed triangular elements on top of Pharaoh Nebamun's residence, convincing historians that the first windcatcher was developed in Egypt.

Over the years, windcatchers grew in popularity and were found in countries across the Middle East, North Africa, Western and Central Asia, due to their passive and efficient means of providing ventilation. However, as it is a particularly site-specific structure whose efficiency varies based on region and climatic conditions, each country adapted the design of the tower to its respective environmental characteristics.

PROVA ESTRATTA ORALE

PROVA 3

QUESITO 1

Parli del Ruolo del Responsabile dei lavori pubblici, ai sensi dell'art. 15 del D.Lgs. 36/2023

QUESITO 2

Variante urbanistica ai fini della realizzazione di un intervento di Pubblica utilità

QUESITO 3

Il candidato tratti della procedura di autorizzazione paesaggistica di tipo ordinario ai sensi dell'art. 146 del codice dei beni culturali

QUESITO N°3 - Applicazioni informatiche
Il candidato tenuto conto dei dati sotto riportati costruisca su di un foglio di calcolo il quadro economico finale

IMPORTO LAVORI	55000
STIMA COSTI DELLA SICUREZZA	2500
SPESE PROGETTUALI	2700
INCENTIVO ART 45 D.LGS36/2023	
IVA 10%	
SPESE PER IMPREVISTI 5%	
SPESE PER VERIFICA PREVENTIVA INTERESSE ARCHEOLOGICO ART 41 COMMA 4 D.LGS 32/23	1800

UNIONE DEI COMUNI MONTANI DEL CASENTINO
POPPI (Ar)

Prova lingua inglese - 3 Design and Function

As explained in our article about natural ventilation and its use in different contexts, air movement is created by the rising of warm and the lowering of cool air. As the air above the land gets warmer, it rises and creates an area of low pressure. When air continues to rise, it cools and moves towards water surfaces, where it falls and creates an area of high pressure, and pushes cold air towards the land. This

movement of areas is what creates the wind. A windcatcher is a chimney-like structure made of clay, wood, or bricks, constructed on the rooftop of houses, mosques, or storage rooms to harness the cool breeze and direct it downwards towards the interior space. The way these towers work is by directing cool wind that is circulating at higher levels downwards through vertical openings with oblique sides (also known as directional openings) by leaving only the shaft opposite of the incoming wind open. Once the cool air enters the space, the warm air circulating inside the interior space is pushed out through openings created on the opposite side of the windcatcher. In areas without cool breeze, windcatchers act as chimneys and push warm air upwards and out through the openings of the tower, regulating the interior environment of the home.

PROVA ESTRATTA ORALE

PROVA 4

QUESITO 1

Il candidato tratti delle fasi delle procedure di affidamento ai sensi dell'art. 17 del D.Lgs. 36/2023

QUESITO 2

I compiti del coordinatore della sicurezza ai sensi del d.lgs 81/08

QUESITO 3

Il candidato tratti dell'autorizzazione paesaggistica semplificata ai sensi del D.P.R. 31/2017

QUESITO N°4 - Applicazioni informatiche
Il candidato tenuto conto dei dati sotto riportati costruisca su di un foglio di calcolo il quadro economico finale considerando un ribasso d'asta del 7.5%

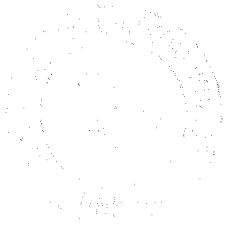
IMPORTO LAVORI	75000
STIMA COSTI DELLA SICUREZZA	4000
SPESE PROGETTUALI	2500
INCENTIVO ART 45 D.LGS36/2023	
IVA 22%	
SPESE PER IMPREVISTI 7%	
ECONOMIE DA RIBASSO	

CONSIDERATI I PRECEDENTI DATI REDIGERE IL QUADRO ECONOMICO POST - GARA SU DI UN FOGLIO DI CALCOLO TIPO EXCEL TENUTO CONTO DI UN RIBASSO D'ASTA DEL 7.5%

UNIONE DEI COMUNI MONTANI DEL CASENTINO POPPI (AR)

4) Windcatchers' expansion
Windcatchers' expansion across different nations generated changes in their design, resulting in unidirectional, bidirectional, multidirectional, and in some cases cylindrical structures, all dependent on the wind direction and the building's exact location. While there is no one-design-fits-all, a traditional windcatcher is a square-sectioned vertical tower with four directional/oblique openings and occasional internal blades or shafts. The tower's height, number of sides, number of openings, and quantity and positioning of the interior blades influence the efficiency of windcatchers, impacting the velocity and turbulence of the airflow.

If wind in that particular region blows from one side, the windcatcher will require only one downward opening (unidirectional windcatcher), whereas if it is being built in an area with varying wind directions, internal walls or blades are integrated to divide the tower into two vertical sections that collect, direct, and release air into the building (bidirectional windcatcher). On the other hand, windcatchers in areas with stronger winds and extreme heat are built with four, six or eight sides with several internal storeys and cross-sections (multidirectional windcatcher).



PROVA ESTRATTA ORALE

PROVA 5

QUESITO 1

Il candidato parli della verifica preventiva dell'interesse archeologico, prevista dall'articolo 41 comma 4, e ALLEGATO I.8 del D.Lgs. 36/2023

QUESITO 2

Il candidato descriva sinteticamente il collaudo e la verifica di conformita' di un'opera pubblica, di cui all' art. 116 del d.lgs 36/2023

QUESITO 3

Il candidato parli del diritto di accesso ai documenti amministrativi, ai sensi dell'art. 22 e seguenti della Legge 241/1990 e del Regolamento 184/2006

QUESITO N°5 – Applicazioni informatiche
Il candidato tenuto conto dei dati sotto riportati costruisca su di un foglio di calcolo il quadro economico finale considerando un ribasso d'asta del 13%

IMPORTO LAVORI	100000
STIMA COSTI DELLA SICUREZZA	5000
SPESE PROGETTUALI	7500
INCENTIVO ART 45 D.LGS36/2023	
IVA 22%	
SPESE PER IMPREVISTI 7%	
ECONOMIE DA RIBASSO	

Prova lingua inglese 5) Contemporary Context
Recently, people have become a lot more environmentally-aware, opting for more passive solutions to reduce energy consumption and carbon footprint. In addition to being more ecological, natural ventilation is also more cost-efficient, and relies on natural external factors such as the wind and the temperature of the interior space and its surroundings. Some of these passive ventilation solutions include single-sided ventilation, cross ventilation, stack ventilation, and the chimney effect. However, several studies have shown that windcatchers are in fact more efficient than windows, especially in dense areas where wind circulation is constricted.
n more contemporary projects, automated windcatchers are utilized that use sensor-controlled panels or solar-powered fans, providing semi-passive cooling systems. Instead of clay, brick, and wood, these

structures are now built with concrete, aluminum, steel, wood, and stone, reimagining the tower in a more modernized context. Manufacturers have even created commercial windcatchers with built-in louvers that prevent having rain and snow enter the shaft. And today, the city of Yazd, Iran, is known as the city of wind towers, housing hundreds of the traditional element across its skyline.