



**PROVA DI AMMISSIONE AI CORSI DI LAUREA E DI LAUREA MAGISTRALE A CICLO UNICO  
DIRETTAMENTE FINALIZZATI ALLA FORMAZIONE DI ARCHITETTO IN INGLESE**

**Anno Accademico 2012/2013**

**Test di Logica e Cultura Generale**

**1. The United Nations' General Assembly:**

- A) is a representative organ of member States
- B) is where the Prime Ministers of Member States meet
- C) is elected democratically
- D) substituted the Security Council from 1996
- E) meets once a month in ordinary session

**2. What does the term “palimpsest” denote?**

- A) An ancient manuscript on parchment, from which an older text has been scraped off and can be re-used
- B) In a theatre show, a short musical intermezzo subtending manifest, or hidden, commercial aims
- C) A texture of sounds played together, by voices and instruments, each with a specific melodic line
- D) A notepad, equipped with pencil holder
- E) A rather wide arch, typical of late ancient architecture

**3. Who supports the Theory of Evolution in his famous book “*The Origin of Species*”?**

- A) Charles Robert Darwin
- B) Isaac Newton
- C) Dmitrij Ivanovič Mendeleev
- D) Johann Gregor Mendel
- E) Epicurus

**4. Cast iron is:**

- A) an alloy of iron and carbon
- B) an alloy of iron and tin
- C) an iron alloy containing lead
- D) tempered soft iron
- E) an iron alloy containing copper

**5. Which movie, in a famous sequence, uses Richard Wagner’s “*Ride of the Valkyries*” soundtrack?**

- A) Apocalypse Now
- B) Full Metal Jacket
- C) The Deer Hunter
- D) Good Morning, Vietnam
- E) Platoon

## Text 1

### Architecture and culture in Renaissance France

It is no simple matter to describe, evaluate or interpret the French Renaissance. We no longer believe that it should be read as the advent of modernity in all fields. The final assessment is far more contradictory than previously believed for all the issues in which we thought we could recognize the promise of the future, political autonomy, a spirit of observation, the rediscovery of Classical art or the development of scientific research. A reasonable conclusion might be, then, that the actual novelty of the period lay in the discovery of conflicts and diversity, in terms of contrasts that frighten or amuse, or in internal lacerations which manifested themselves most cruelly in the religious crisis. However, this interpretation does not take sufficient account of the extraordinary vitality that infused the whole of French society throughout the 16th century, with unforgettable reverberations in literature and art.

Hence historians' great discomfort, conscious of the impossibility of finding an efficient definition for this vast development. The problem presents too many facets: culture, of which France, as usual, considers itself a harbinger, is both too ambitious ("good manners", "courtesy") and closely bound to the medieval past. The complexities of the symbolic thought that is characteristic of the period have been neglected for too long. Obviously, the events in France cannot be isolated from the European context. However, in art history there has been frequent misuse of sources and influences. In fact, to put it bluntly, the whole picture needs reviewing and completing.

For over a century there have been two alternating lines of interpretation: the dynamism of the Italian models, discovered through the conquests, and on the other hand, the effect of the Flemish and Rheinian models, that spread thanks to the exceptional success of the graphic arts. These relationships, which in any case remain fundamental, have been proficuously studied; however, some sort of more or less passive submission to the foreign models is always suggested. The consequence of this has been the neglect of a factor that seems increasingly essential.

The French were used to being the initiators of all fashion in the western world. During the 15th century, the difficulties posed by wars abroad and at home had seriously undermined this supremacy. They did not, however, take away the idea of a national superiority from the minds of the powerful and the elite, and this was to manifest itself again. Interaction with Italy and with the northern European workshops was always complicated by this instinctive reaction. One often has the impression, for instance, that sculptors' and glaziers' recourse to models engraved by Dürer or Marcantonio confirmed the conviction that those imprints were nothing but a foreign contribution to the progress of French art. After all, enamellers and caisson makers created new works of art from the original compositions.

French art has always adopted "selective assimilation" (to use the phrase coined by Erwin Panofsky), an attitude that requires a solid sense of autonomy and that justifies the ease, or perhaps the ingratitude with which it treated its sources. The path to follow is never completely clear.

Some of the ideas regarding the salient features of the French Renaissance have developed around these manifestations, which today seem surprising. Foremost there is the concept of a new sort of teaching, far more complex and chaotic than is usually believed, which aimed at an ambitious cultural revolution initially in line with the ideas of Erasmus.

The decisions that made King Francis the First famous required an analysis of society. In the critical view of contemporary Italians, traditional French aristocracy was as brilliant as it was ignorant if compared with the new class of officials that included the "noblesse de robe". It is interesting to confirm whether and how this sharp criticism of nobility had consequences on taste, architecture and art collections. Even though this issue barely appears in the studies that follow, it has allowed us to identify a fundamental topic that has generally been neglected by historians of culture and literature. The topic is the chivalrous ideal, and it would be naïve to think that it had disappeared with the arrival of the new era.

#### 6. Historians usually interpret French Renaissance as: (*see text 1*)

- A) always dependent on foreign models
- B) influenced only by Italian models
- C) debtor only to the Flemish and Rhenanian models
- D) a local product of the idea of national superiority
- E) an island in the European context

#### 7. The idea of a French primacy in the arts: (*see text 1*)

- A) wasn't dented by the involvement of foreign craftsmen
- B) was justified by the primacy of French masterartists in Europe
- C) depended on military successes
- D) was the consequence of a war-driven aristocracy
- E) did not agree with the old "chivalry" idea

#### 8. French Renaissance: (*see text 1*)

- A) aimed at a "cultural revolution"
- B) contains no contradictions
- C) is too attached to the medieval past
- D) was a product of the crippling religious crisis
- E) was a phenomenon of the 15th century



**9. Certain medieval ideas, like “good manners” and “courtesy”: (see text 1)**

- A) survived the birth of “modernity”
- B) were seriously undermined by the consequences of war
- C) manifested themselves especially with the spread of graphical models
- D) agreed with the views of Erasmus of Rotterdam
- E) were completely redefined and completed thanks to “selective assimilation”

**10. Which of these aspects was less relevant on the French Renaissance culture? (see text 1)**

- A) The end of the Ancient Regime
- B) The tight relationship with the medieval past
- C) The recovery of the old
- D) The dynamism of Italian models
- E) The effect of Flemish and Rhenanian models

**Text 2**

**Literary genres**

The notion of genre immediately raises several questions : fortunately, some of these vanish once we have formulated them explicitly. The first question is: are we entitled to discuss a genre without having studied (or at least read) all the works which constitute it? But one of the first characteristics of scientific method is that it does not require us to observe every instance of a phenomenon in order to describe it; scientific method proceeds rather by deduction. We actually deal with a relatively limited number of cases, from them we deduce a general hypothesis, and we verify this hypothesis by other cases, correcting (or rejecting) it as need be. Whatever the number of phenomena (of literary works, in this case) studied, we are never justified in extrapolating universal laws from them; it is not the quantity of observations, but the logical coherence of a theory that finally matters.

The level of generality on which a genre is to be located raises a second question. Are there only a few genres (i.e., lyric, epic, dramatic), or many more? Are genres finite in number or infinite? A third problem is a matter of aesthetics. We are told that it is pointless to speak of genres (tragedy, comedy, etc.), for the work of art is essentially unique, valuable because of what is original about it that distinguishes it from all other works, and not because of whatever in it may resemble them. Such a position is not, strictly speaking, false; it is simply inappropriate. We may certainly like a work for one reason or another; this is not what defines it as an object of study. The motive of an intellectual activity need not dictate the form which that activity ultimately assumes. The concept of genre (or species) is borrowed from the natural sciences.

Now there is a qualitative difference as to the meanings of the terms “genre” and “specimen,” depending on whether they are applied to natural beings or to works of the mind. In the former case, the appearance of a new example does not necessarily modify the characteristics of the species; consequently, the properties of the new example are for the most part entirely deducible from the pattern of the species. Being familiar with the species tiger, we can deduce from it the properties of each individual tiger; the birth of a new tiger does not modify the species in its definition. The impact of individual organisms on the evolution of the species is so slow that we can discount it in practice. Similarly in the case of linguistic utterances (though to a lesser degree): an individual sentence does not modify the grammar of the language, and the grammar must permit us to deduce the properties of the sentence.

The same is not the case of the realm of art or of science. Here evolution operates with an altogether different rhythm: every work modifies the sum of possible works, each new example alters the species. We might say that in art we are dealing with a language of which every utterance is agrammatical at the moment of its performance. More exactly, we grant a text the right to figure in the history of literature or of science only to the extent that it produces a change in our previous notion of the one activity or the other. Texts that do not fulfil this condition automatically pass into another category: that of so-called “popular” or “mass” literature in the one case; in the other, that of the academic exercise. To return to our subject, only “popular” literature (detective stories, serialized novels, science fiction etc.) would approach fulfilling the requirements of genre in the sense that would be inapplicable to strictly literary texts.

Such a position obliges us to make our own theoretical assumptions explicit. Dealing with any text belonging to “literature”, we must take into account a double requirement. First, we must be aware that it manifests properties that it shares with all literary texts, or with texts belonging to one of the sub-groups of literature (which we call, precisely, genres). It is inconceivable, nowadays, to defend the thesis that everything in the work is individual, a brand-new product of personal inspiration, a creation with no relation to works of the past. Second, we must understand that a text is not only the product of a pre-existing combinatorial system (constituted by all that has virtual literary properties); it is also a transformation of that system.

We can already say, then, that every literary study must participate in a double movement: from the particular work to literature generally (or genre), and from literature generally (from genre) to the particular work. To grant a temporary privilege to one direction or the other – to difference or to resemblance – is a perfectly legitimate transaction.

Why then raise these outdated problems? Gérard Genette has answered perfectly: “Literary discourse is produced and developed according to structures it can transgress only because it finds them, even today, in the field of its language and style”. For there to be a transgression, the norm must be apparent. Moreover, it is doubtful that contemporary literature is entirely exempt from generic distinctions; it is only that these distinctions no longer correspond to the notions handed down from the literary theories of the past. We are of course not obliged to keep to these notions now; indeed there is a growing necessity to elaborate abstract categories that could be applied to contemporary work. More generally, failing to recognise the existence of genres is equivalent to claiming that a literary work does not have any relationship to already existing works. Genres are precisely those intermediaries by which the work assumes a relation with the universe of literature.

- 11. What does the author mean by “genre”? (see text 2)**
- A) One of the possible subcategories of artwork
  - B) The collection of artistic features of a work
  - C) The combinatorial system of the artistic techniques of a work
  - D) The language and style specifics of a work
  - E) The theoretical foundations of an artistic discipline
- 12. The author is in favour of keeping the notion of literary genre? (see text 2)**
- A) Yes
  - B) No, unless one adopts the categories to contemporary works
  - C) No, except for ancient works
  - D) Yes, but only for scientific works
  - E) No
- 13. The scientific method, used to defined the features of a genre: (see text 2)**
- A) implies a theory’s logical coherence, based on successive corrections of the initial assumption
  - B) implies a general theory’s coherence, based on reading all the works of one genre
  - C) implies the formulation of a general theory, based on the characteristic features of a writer’s works
  - D) is partial, because no general theory may be deduced from particular notions
  - E) implies the formulation of a theory by an inductive process from the universal to the particular
- 14. It is useful to try to define the characteristics of a genre to which a work belongs? (see text 2)**
- A) Yes, because due to the existence of genre characteristics a work can infringe the characteristics themselves
  - B) Yes, because a work does not find structures defined in its own field
  - C) No, because genres manifest themselves in various ways, which cannot be defined with precision
  - D) No, a work is a work precisely because of its specific uniqueness
  - E) Yes, because the features of a genre serve to clarify one author’s style
- 15. What’s the relationship between a single work and its genre? (see text 2)**
- A) If it’s a literary work, it introduces changes in the genre
  - B) It belongs to mass literature, for it modifies the characteristics of the genre
  - C) Doesn’t belong to the history of literature because it modifies the characteristic of the genre
  - D) The modifications to the genre are void
  - E) Its characteristics can be entirely defined with its genre

### Text 3

#### Other life-forms

The origin of life is one of the great unsolved problems of science. Nobody knows how, where or when life originated. About all that is known for certain is that microbial life had established itself on Earth by about three and a half billion years ago. In the absence of hard evidence of what came before, there is plenty of scope for disagreement. Thirty years ago the prevailing view among biologists was that life resulted from a chemical fluke so improbable it would be unlikely to have happened twice in the observable universe. That conservative position was exemplified by Nobel Prize-winning French biologist Jacques Monod, who wrote in 1970: “Man at last knows that he is alone in the unfeeling immensity of the universe, out of which he emerged only by chance.” In recent years, however, the mood has shifted dramatically. In 1995 renowned Belgian biochemist Christian de Duve called life “a cosmic imperative” and declared “it is almost bound to arise” on any Earth-like planet. De Duve’s statement reinforced the belief among astrobiologists that the universe is teeming with life. Dubbed biological determinism by Robert Shapiro of New York University, this theory is sometimes expressed by saying that “life is written into the laws of nature.” How can scientists determine which view is correct? The most direct way is to seek evidence for life on another planet, such as Mars. If life originated from scratch on two planets in a single solar system, it would decisively confirm the hypothesis of biological determinism. Unfortunately, it may be a long time before missions to the Red Planet are sophisticated enough to hunt for Martian life-forms and, if they indeed exist, to study such extraterrestrial biota in detail.

An easier test of biological determinism may be possible, however. No planet is more Earthlike than Earth itself, so if life does emerge readily under terrestrial conditions, then perhaps it formed many times on our home planet. To pursue this tantalizing possibility, scientists have begun searching deserts, lakes and caverns for evidence of “alien” life-forms—organisms that would differ fundamentally from all known living creatures because they arose independently. Scientists have yet to reach a consensus on a strict definition of life, but most would agree that two of its hallmarks are an ability to metabolize (to draw nutrients from the environment, convert those nutrients into energy and excrete waste products)



and an ability to reproduce. The orthodox view of biogenesis holds that if life on Earth originated more than once, one form would have swiftly predominated and eliminated all the others. This extermination might have happened, for example, if one form quickly appropriated all the available resources or “ganged up” on a weaker form of life by swapping successful genes exclusively with its own kind. But this argument is weak. Bacteria and archaea, two very different types of microorganisms that descended from a common ancestor more than three billion years ago, have peacefully coexisted ever since, without one eliminating the other. Moreover, alternative forms of life might not have directly competed with known organisms, either because the aliens occupied extreme environments where familiar microbes could not survive or because the two forms of life required different resources. Even if alternative life does not exist now, it might have flourished in the distant past before dying out for some reason. In that case, scientists might still be able to find markers of their extinct biology in the geologic record. If alternative life had a distinctively different metabolism, say, it might have altered rocks or created mineral deposits in a way that cannot be explained by the activities of known organisms. Biomarkers in the form of distinctive organic molecules that could not have been created by familiar life might even be hiding in ancient microfossils, such as those found in rocks dating from the Archean era (more than 2.5 billion years ago). A more exciting but also more speculative possibility is that alternative life-forms have survived and are still present in the environment, constituting a kind of shadow biosphere. At first this idea might seem preposterous; if alien organisms thrived right under our noses (or even in our noses), would not scientists have discovered them already? It turns out that the answer is no. The vast majority of organisms are microbes, and it is almost impossible to tell what they are simply by looking at them through a microscope. Microbiologists must analyze the genetic sequences of an organism to determine its location on the tree of life—the phylogenetic grouping of all known creatures—and researchers have classified only a tiny fraction of all observed microbes.

**16. We speak of life: (see text 3)**

- A) in presence of metabolism and reproduction
- B) when there is a minimum sensibility
- C) if the brain is sufficiently developed
- D) in presence of a growth process
- E) when water is used

**17. An alien life-form is: (see text 3)**

- A) a life-form originating by a different evolution
- B) an organism coming from other planets
- C) any unknown microorganism
- D) an organism that lives in an atmosphere with no oxygen
- E) an anaerobic form of life

**18. The studies on the most ancient geological strata: (see text 3)**

- A) might contain different metabolic traces
- B) have already provided secure evidence
- C) can never be considered decisive
- D) do not distinguish alternative forms of life
- E) highlight only known bio-markers

**19. According to biological determinism, life: (see text 3)**

- A) arises by a natural evolution
- B) follows from exceptional circumstances
- C) requires an Earth-like environment
- D) is only present in the solar system
- E) has extra-galactic origins

**20. Alien life-forms might exist: (see text 3)**

- A) in environments that are not suitable to known forms
- B) in the urban environment
- C) in the rainforest
- D) in colonies of unknown microorganisms
- E) in temperate zones

21. Amilcare, Basilio and Concetto work in a school, as a janitor, teacher and secretary (not necessarily in this order). Amilcare is Concetto's son, and is shorter than the teacher. The janitor is the tallest of the three, and has no children.

Which of the following statements is compatible with the above?

- A) Amilcare is the secretary, Basilio is the janitor, Concetto the teacher
- B) No matching is possible
- C) Concetto is the secretary, Basilio is the janitor, Amilcare the teacher
- D) Amilcare is the secretary, Basilio is the teacher
- E) Basilio is the secretary, Amilcare is the janitor, Concetto the teacher

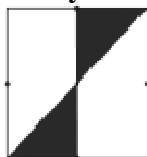
22. Aldo, Bruno, Carlo, Donato and Eugenio during an excursion spend the night in a hotel where they booked three singles and one double room.

Nobody wants to share the room with Eugenio because he snores heavily. Aldo is willing to share the double only with Carlo or Bruno. Bruno says he could share the double only with Donato.

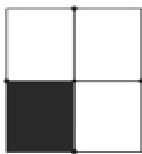
Then, necessarily:

- A) in the double will stay Aldo or Donato
- B) Aldo and Bruno will share the double
- C) Eugenio, Carlo and Donato will occupy the three singles
- D) Eugenio, Aldo and Bruno will occupy the three singles
- E) one between Aldo and Bruno, will definitely stay in the double room

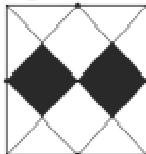
23. The three squares below have the same side. The thick points on the edges of the squares represent the midpoints. For each square consider the overall area of the black parts. What can we say about the black areas in the three squares?



Square 1



Square 2



Square 3

- A) The three areas are equal
- B) The black area of square 1 is bigger than the other two
- C) The black area of square 3 is bigger than the other two
- D) The black area of square 1 is equal to the black area of square 2, and either is bigger than the one of square 3
- E) The black area of square 2 is bigger than the other two

24. My wardrobe contains 5 different pairs of shoes. Without looking, I get out some shoes (without putting them back). Which is the minimum number of shoes I have to get out to be sure of having a matching pair?

- A) 6 shoes
- B) 5 shoes
- C) 4 shoes
- D) 9 shoes
- E) 3 shoes



25. This year Tancredi tried to learn French, English and German. We know that:
- if he learnt German, then he also learnt French and English
  - if he learnt French, then he also learnt one between English and German
  - if he learnt English, then he also learnt German but not French
- How many languages did Tancredi learn?
- A) None
  - B) One
  - C) Two
  - D) Three
  - E) We cannot say
26. The offer of a shop goes like this:  
*For every 200 euros spent, we give a voucher of 20 euros, to be spent with the next purchase*  
Tancredi sees the offer and considers what the real discount is. Which is correct?
- A) The maximum discount of the offer is less than 10%
  - B) The maximum discount of the offer is 20%
  - C) The maximum discount of the offer is 10%
  - D) The maximum discount of the offer is more than 10%
  - E) The maximum discount of the offer is less than 2%
27. The cousins Tancredi and Nina are a bit awkward. Tancredi lies Mondays, Tuesdays, Wednesdays and tell the truth on the other days. Nina instead lies Thursdays, Fridays and Saturdays, but tells the truth on the remaining days. One day X, Tancredi says:  
*Yesterday was one of the days when Nina tells the truth*  
Which day is X?
- A) Thursday
  - B) Monday
  - C) Tuesday
  - D) Wednesday
  - E) Friday
28. The new living room of the countess Viendalmare has a square floor, whose side is eleven meters long. The countess wants to tile with square black and white tiles of one meter of side. The pattern she commissioned to her architect has all white tiles except for those of the border and on the two diagonals, which are black. How many black tiles must the architect order?
- A) 57
  - B) 66
  - C) 62
  - D) 61
  - E) 58
29. Someone stole grandma's pie and she knows at least one of her nephews, Pim, Pom and Pam, was involved. She knows that if Pim is guilty and Pom innocent, then Pam is guilty. What can we say?
- A) At least one of Pom and Pam is guilty
  - B) At least one of Pim and Pom is guilty
  - C) At least one of Pim and Pam is guilty
  - D) At least two nephew are guilty
  - E) Only one is guilty

30. On planet Illogico there are only 1 cent coins, 7 cent coins and 8 cent coins. What is the minimum number of coins needed to pay precisely 60 cents?
- A) 8 coins
  - B) 7 coins
  - C) 9 coins
  - D) 11 coins
  - E) 12 coins
31. The owner of an earring factory wants to make a present to the his 100 women employees, to celebrate March 8. Since 10% of them wears only one earring and the remaining women are equally split between no earrings and two earrings, how many earrings should he prepare?
- A) 100
  - B) 90
  - C) 180
  - D) 200
  - E) 45
32. I meet two people from the town of riders (who always tell the truth) and of robbers (who always lie).  
 The first one says: *We are both rich*  
 The second says: *We are both robbers*  
 Necessarily, then:
- A) the first one is a rider, the second is rich
  - B) the second one is a robber, the first one isn't rich
  - C) the first one is a robber, the second is rich
  - D) the first one is a robber, the second is a rider
  - E) the first one is a rider, the second isn't rich

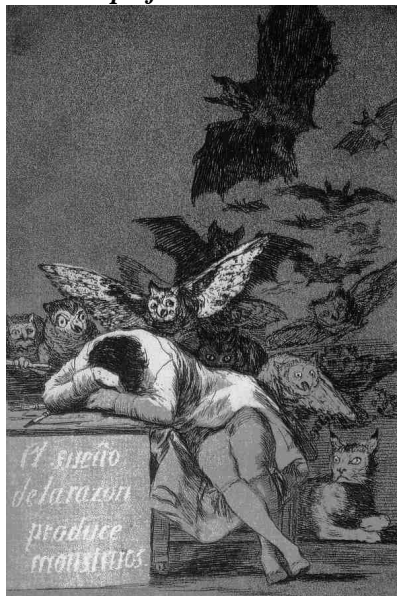
### Test di Storia

33. Which statement about Pablo Picasso's painting *Guernica* reflects the truth?
- A) It was at the MoMA at New York up to the beginning of the 80s
  - B) It was painted following the bombings of World War I
  - C) It should have been made for the Universal Exposition of 1942 in Rome
  - D) It was commissioned by Francisco Franco
  - E) It was painted by Pablo Picasso in the 70s





34. The *Sleep of Reason Produces Monsters*, below, is a painting by:



- A) Francisco Goya
- B) Salvador Dalí
- C) El Greco
- D) Joan Miró
- E) Frida Kahlo

35. The term “grotesque decoration” comes from:

- A) the decorations of the Domus Aurea
- B) the decorations of the Etruscan tombs
- C) the decorations of the cave of Altamira
- D) the mosaic decorations with farsical subjects
- E) the decorations with water garden theme

36. Which work of art did Michelangelo begin last?

- A) Last Judgement
- B) The statue of David
- C) Doni Tondo
- D) Vault of the Sistine Chapel in Rome
- E) The Pietà in Rome

37. Which element is not part of the Roman temple?

- A) Opisthodomos
- B) Cornice
- C) Tympanum
- D) Podium
- E) Pronaos

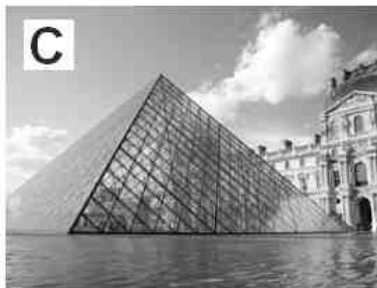
**38. What is meant by the architectonic term “clerestory” referred to places of worship?**

- A) The windowed level that gives light to the major nave
- B) The element preceding the entrance
- C) The system of the radial chapels
- D) The system of the two frontal towers
- E) The system of the vaults

**39. Which among the following works in Rome is not made by Donato Bramante?**

- A) Villa Farnesina
- B) Belvedere yard
- C) Temple of San Pietro in Montorio
- D) Santa Maria della Pace cloister
- E) Saint Peter’s Basilica

**40. Put in chronological order the constructions shown in the photos:**



- A) b-a-e-c-d
- B) a-c-b-d-e
- C) b-c-a-e-d
- D) a-b-e-d-c
- E) b-a-c-e-d



41. The sculpture below is by:



- A) Alberto Giacometti
- B) Marino Marini
- C) Arturo Martini
- D) Francesco Messina
- E) Giacomo Manzù

42. Put in chronological order the following events:

- a) Cape Horn was reached for the first time by a European crew
  - b) Vasco da Gama reaches the Indies sailing past the Cape of Good Hope
  - c) Europeans ships for the first time circumnavigate the earth
  - d) James Cook discovers Australia
  - e) The Danish explorer Vitus Bering sails through the strait that will bear his name
- A) b-c-a-e-d
  - B) a-c-b-d-e
  - C) c-b-a-d-e
  - D) b-e-c-a-d
  - E) c-e-a-b-d

43. Ignacio de Loyola was:

- A) the founder of the Society of Jesus (Jesuits)
- B) the victor of the battle of Cyprus
- C) Pope Adrian VI before his election
- D) a navigator who discovered new lands
- E) the inventor of the sextant

44. In 1982 the war of Falkland- Malvinas Islands saw against each other:

- A) The UK and Argentina
- B) Argentina and Chile
- C) Ecuador and Colombia
- D) Ecuador and Chile
- E) Argentina and Uruguay

45. The empire of Alexander the Great, at the time of his death:

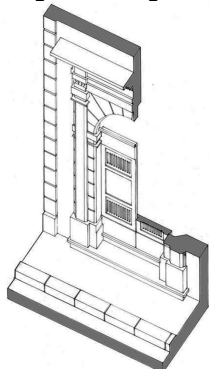
- A) was divided into four parts
- B) dissolved into a myriad of small states
- C) was ruled by Harpalus, his treasurer
- D) was incorporated into Egypt
- E) was incorporated into the Persian empire

- 46. Which of the following events comes after the beginning of the modern age?**
- A) Cromwell's revolution
  - B) Marco Polo's travel to China
  - C) Constantinople's fall
  - D) Granada's fall
  - E) The discovery of America
- 47. In which century did the Protestant Reform begin?**
- A) 16th century
  - B) 15th century
  - C) 17th century
  - D) 18th century
  - E) 14th century
- 48. In history, what does the term "Luddites" refer to?**
- A) The opposition to the introduction of machines in factories
  - B) The exclusion of Catholics from the English political life
  - C) The slave trade on African coasts
  - D) The spread of the plague by soldiers passing through a region
  - E) The fencing of pastures for cattle and sheep
- 49. How did one indicate the willingness of the United States not to tolerate any European intervention in America and at the same time not to interfere in disputes between the European powers?**
- A) Monroe Doctrine
  - B) New Deal
  - C) Declaratory Act
  - D) Bill of Rights
  - E) Tenth Amendment
- 50. In 1979, who invaded Afghanistan to depose president Hafizullah Amin and replace him with Babrak Karmal?**
- A) The U.R.S.S.
  - B) The U.S.A.
  - C) Iraq
  - D) N.A.T.O.
  - E) Iran
- 51. Which of the following artists is considered a champion of Surrealism?**
- A) Salvador Dalì
  - B) Fernando Botero
  - C) Lucio Fontana
  - D) Mimmo Paladino
  - E) Keith Haring



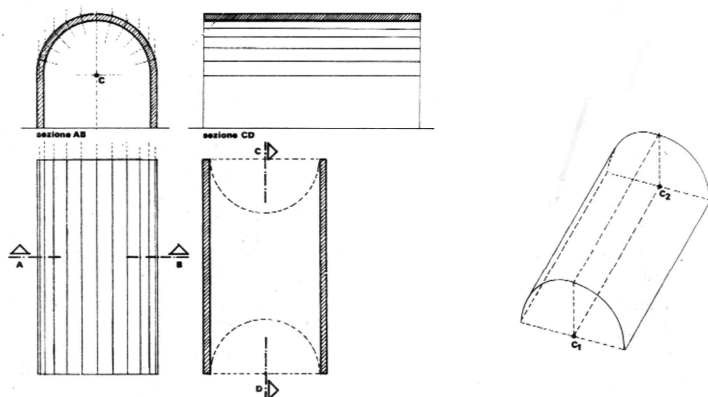
**Test di Disegno e Rappresentazione**

52. The portal depicted in the image is represented in:



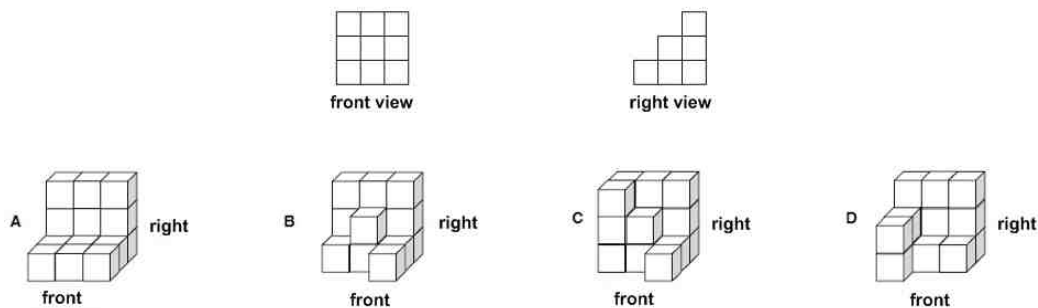
- A) axonometric sectional view
- B) orthographic projection
- C) oblique perspective
- D) exploded view
- E) perspective vertical plane

53. The image depicts schematically:



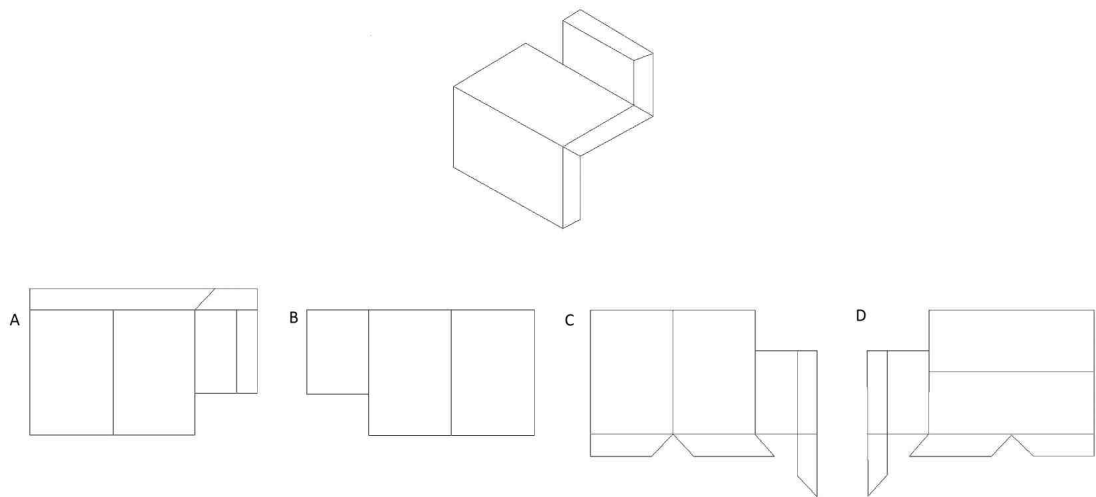
- A) Orthographic projection and axonometry of a barrel vault
- B) Orthographic projection and axonometry of a groin vault
- C) Orthographic projection and axonometry of a sail vault
- D) Perspective and axonometry of a barrel vault
- E) Orthographic projection and axonometry of a cloister vault

54. Given the front and right views of a solid, what is its correct three-dimensional representation?



- A) Representation B
- B) Representation A
- C) Representation C
- D) Representation D
- E) None of the other

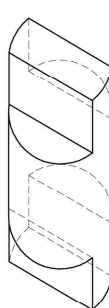
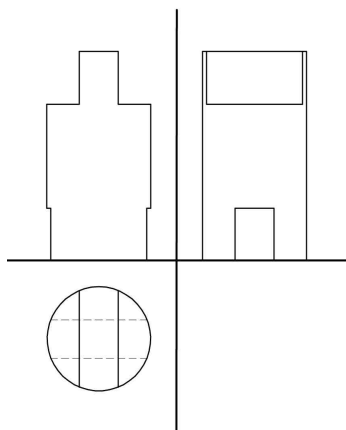
55. What is the development of the object in the picture?



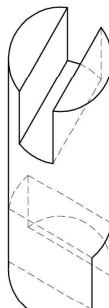
- A) Development C
- B) Development B
- C) Development A
- D) Development D
- E) None of those proposed



56. Among the military assonometry plans view in figure, which one is coherent with the orthographic projections?



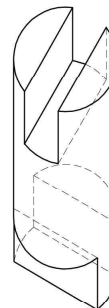
1



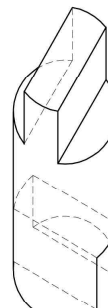
2



3



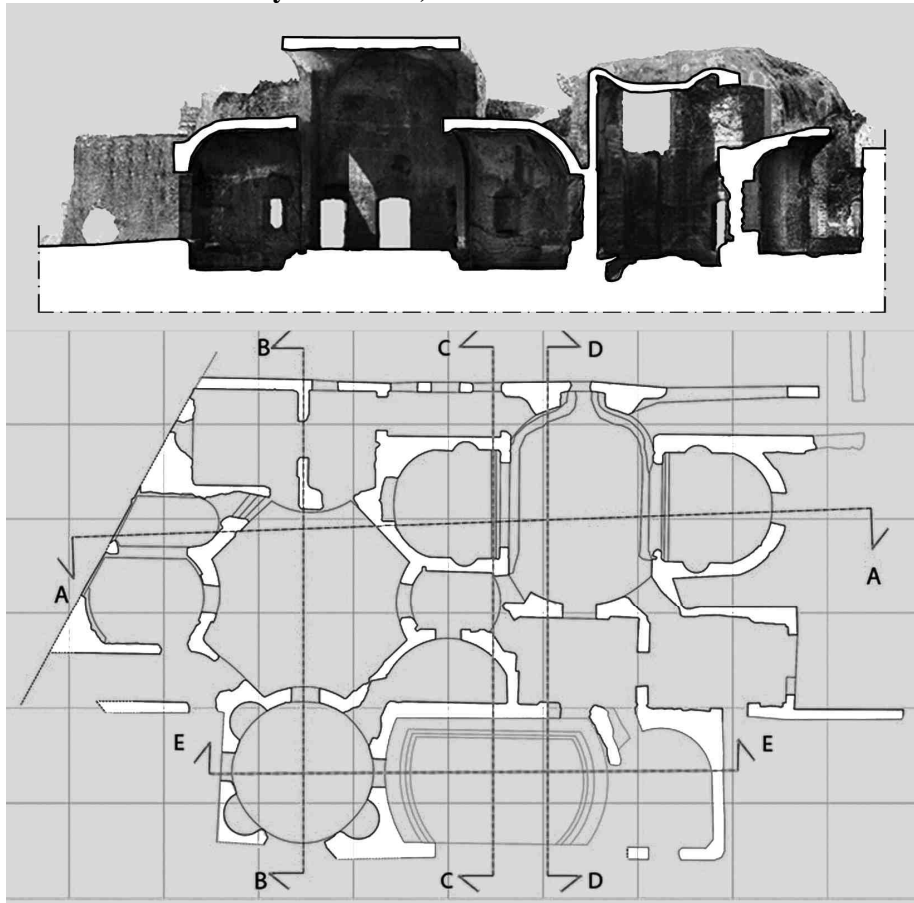
4



5

- A) 5
- B) 3
- C) 2
- D) 4
- E) 1

57. Among the sections obtained with the cutting planes indicated in plan view, identify the one represented in the image. (In the section the projections are taken along the direction and the orientation indicated by the arrows)

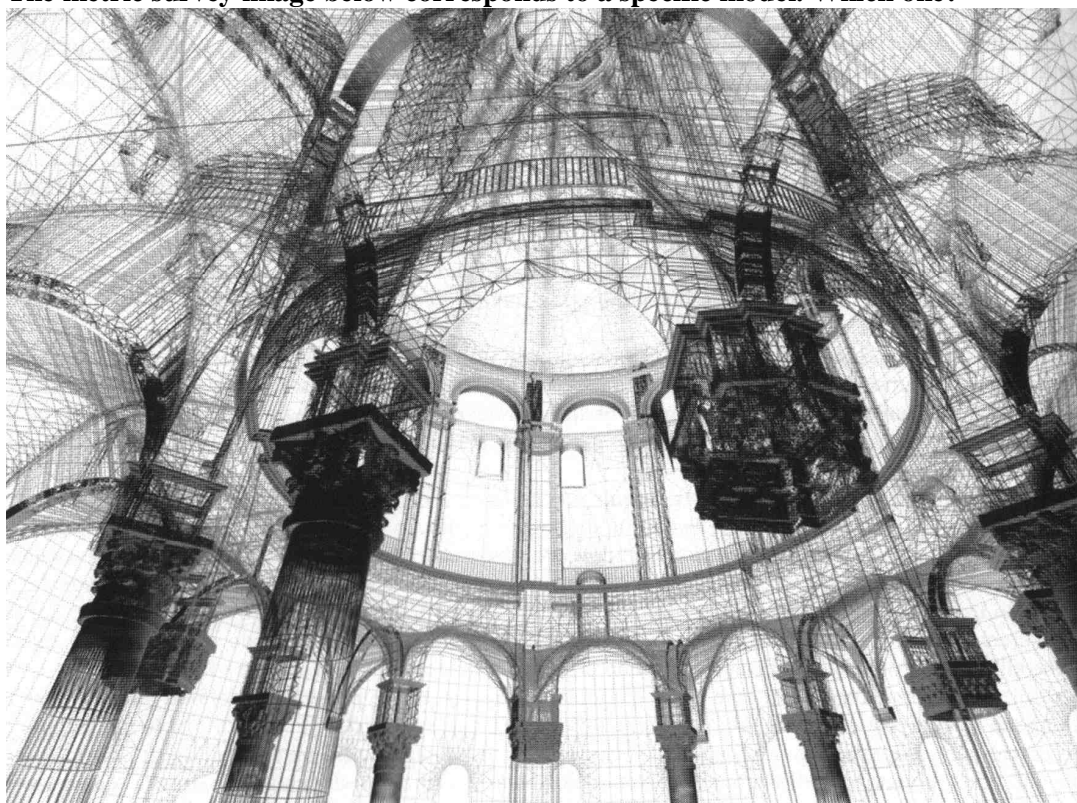


- A) Section AA
- B) Section BB
- C) Section CC
- D) Section DD
- E) Section EE



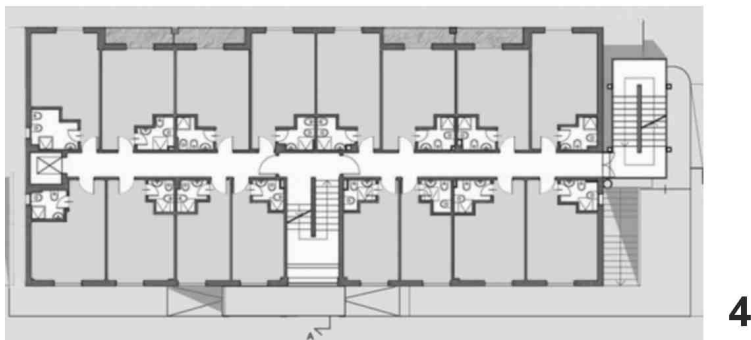
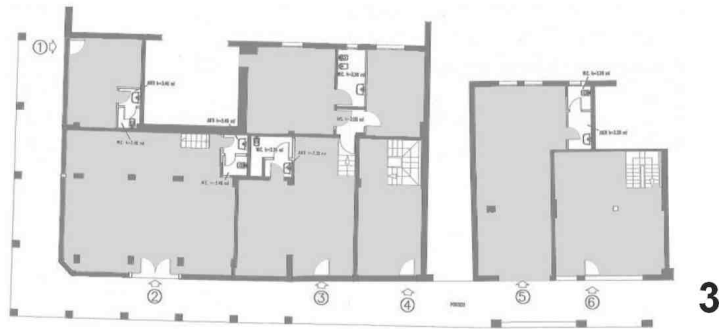
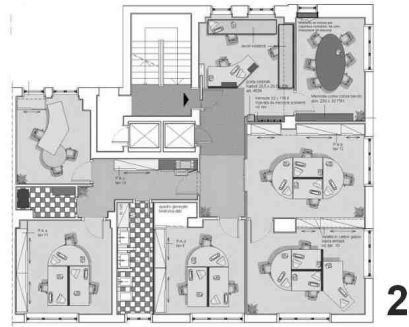
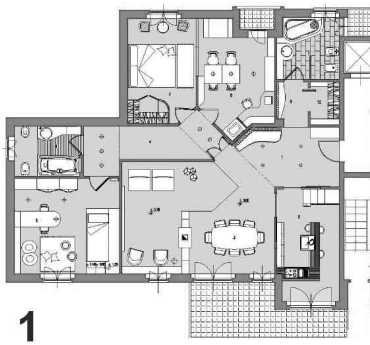


58. The metric survey image below corresponds to a specific model. Which one?



- A) A perspective wireframe digital model
- B) An axonometric digital model
- C) A plastic model
- D) A wooden model
- E) A point cloud digital model

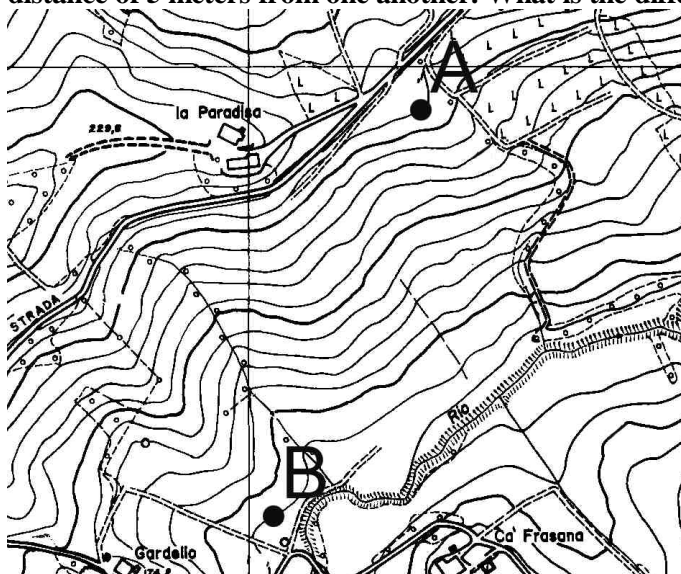
59. Match the plants in the figure with their use.



- A) 1-Home, 2-Offices, 3-Commercial spaces, 4-Hotel
- B) 1-Commercial spaces, 2-Offices, 3-Hotel, 4-Home
- C) 1-Home, 2-Hotel, 3-Commercial spaces, 4-Offices
- D) 1-Hotel, 2-Commercial spaces, 3-Offices, 4-Home
- E) 1-Home, 2-Commercial spaces, 3-Offices, 4-Hotel

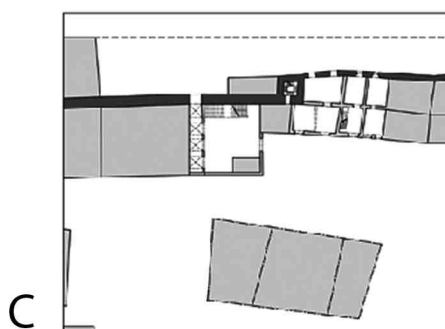
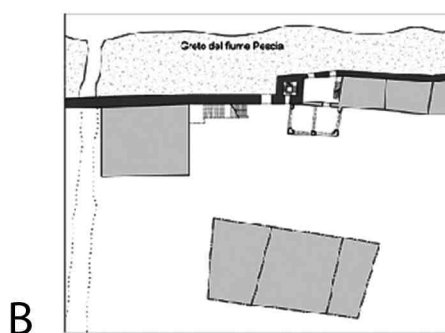
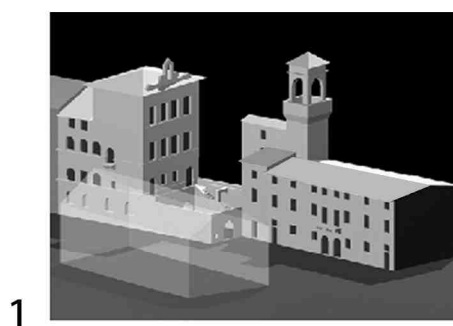
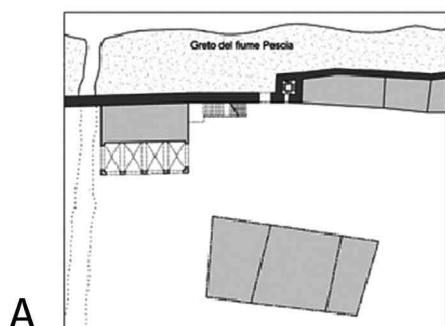


60. Consider the layout of the Territorial Regional Chart (scale 1:5000) in which contour lines have a distance of 5 meters from one another. What is the difference in height between points A and B?



- A) 60 m
- B) 48 m
- C) 50 m
- D) 120 m
- E) 24 m

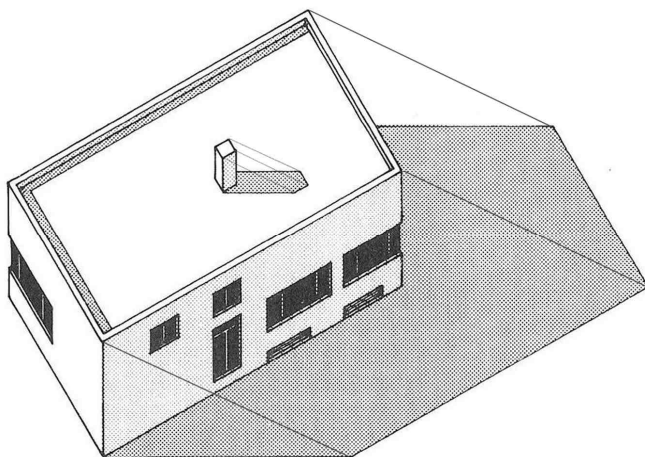
61. Find the right match of plan and axonometric view.



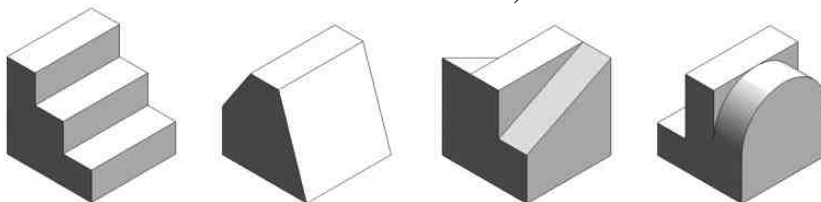
- A) A-2, B-3, C-1
- B) A-2, B-1, C-3
- C) A-3, B-2, C-1
- D) A-1, B-2, C-3
- E) No matching possibile



62. Consider the building represented in monometric axonometric. Which is the right direction of the light projecting the shadow in figure?

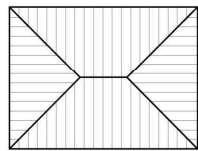


- A) From left to right, with angle between light and ground  $< 45^\circ$
  - B) From right to left, with angle between light and ground  $> 45^\circ$
  - C) From left to right, with angle between light and ground  $> 45^\circ$
  - D) From bottom to top, with angle between light and ground  $< 45^\circ$
  - E) From bottom to top, with angle between light and ground  $> 45^\circ$
63. Given a plane  $\alpha$  and a line  $r$  perpendicular to  $\alpha$ , we know that:
- A)  $r$  is orthogonal to every line lying on  $\alpha$
  - B)  $r$  is perpendicular only to two lines lying on  $\alpha$
  - C)  $r$  is perpendicular only to one line lying on  $\alpha$
  - D)  $r$  is not perpendicular to any line lying on  $\alpha$
  - E)  $r$  intersects every line lying on  $\alpha$
64. If these solid bodies have the same base area, which other feature do they have in common?

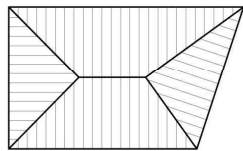


- A) Top view
- B) None
- C) Same frontal view
- D) Same profile view
- E) Three equal views

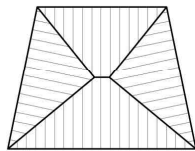
65. Consider the following roof top views, characterized by horizontal eaves lines. Determine the only one where NOT EVERY roof pitch have the same slope.



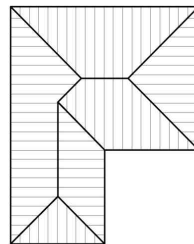
1



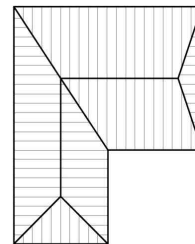
2



3



4

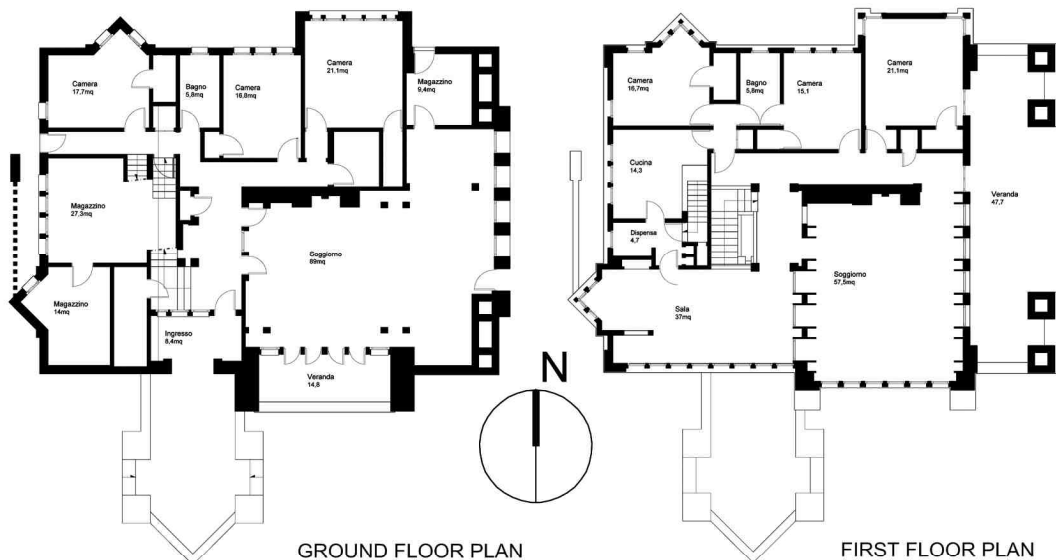


5

- A) 5
- B) 2
- C) 3
- D) 1
- E) 4

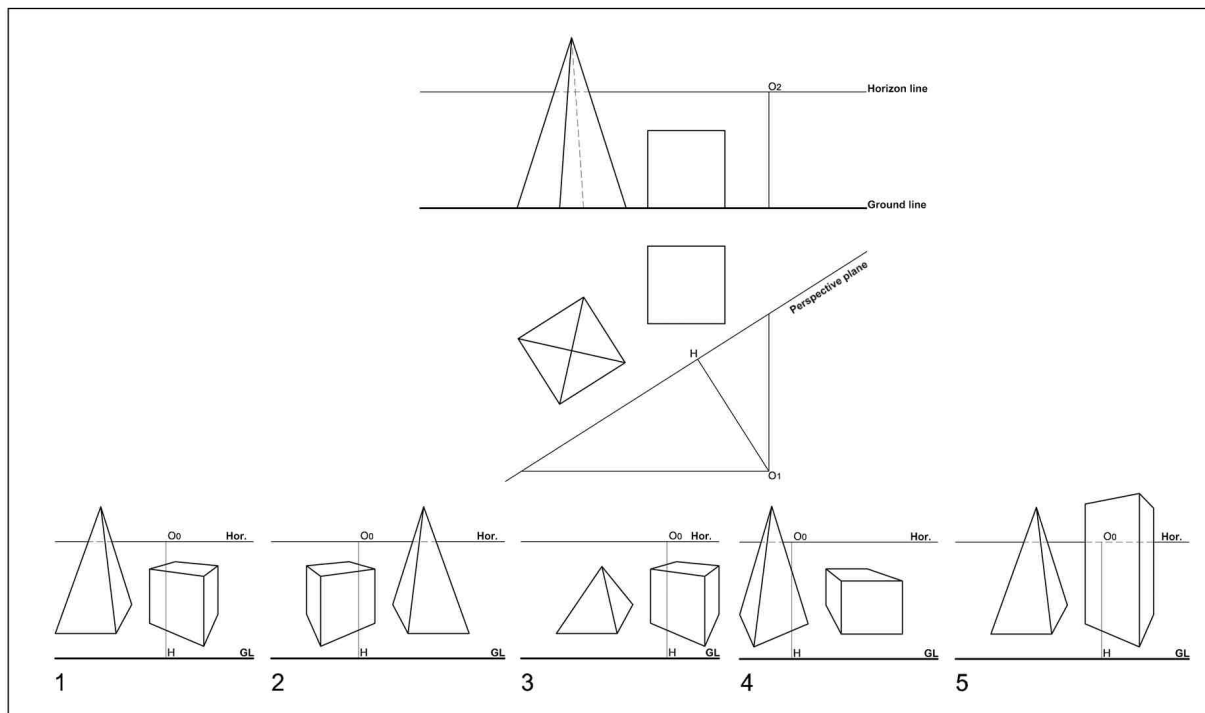


66. Consider the plants of a building and their orientation. Associate to each elevation view shown below the correct orientation with respect to the cardinal points.



- A) 1-South; 2-Ovest; 3-North; 4-East
- B) 1-East; 2-South; 3-Ovest; 4-North
- C) 1-North; 2-East; 3-South; 4-Ovest
- D) 1-Ovest; 2-North; 3-East; 4-South
- E) 1-South; 2-East; 3-North; 4-Ovest

67. Of the perspective views shown below, which one is coherent with the orthographic projection?



- A) 1
- B) 4
- C) 2
- D) 3
- E) 5

### Test di Fisica e Matematica

68. The hourly average pay of 60 workers is 8 euros. Some of them received 7,5 euros per hour while the others are paid 10 euros an hour. How many get 7,5 euros per hour?

- A) 48
- B) 50
- C) 46
- D) 42
- E) 44

69. A shop owner divides 40 kg of coffee equally into  $s$  bags. If the number of bags is increased by 5 how many kilos less will there be in each bag?

- A)  $200/(s^2 + 5s)$
- B)  $100/(5s^2 + s)$
- C)  $200/(s^2 + 10s)$
- D)  $400/(s^2 + s)$
- E)  $250/(s^2 - 5s)$





70. To water a field one third of a tank is necessary. If after finishing the tank contains 6000 liters of water, how many liters were used?
- A) 3000
  - B) 4000
  - C) 3500
  - D) 2000
  - E) 2500
71. The quantity  $\sqrt{3-2+x}$  is defined only for real values  $x$  satisfying one of the following conditions. Which one?
- A)  $-5 \leq x \leq +1$
  - B)  $-2 \leq x \leq +2$
  - C) for each  $x$
  - D)  $-5 \leq x \leq +3$
  - E)  $x \neq 2$
72. The square root of 0,4 equals:
- A)  $\sqrt{10}/5$
  - B) 0,2
  - C) 0,16
  - D) 0,002
  - E)  $\sqrt{10}/4$
73. The number  $[(5002)^2 - (4998)^2]$  equals:
- A) 40000
  - B) 38600
  - C) 40016
  - D) 42000
  - E) 42064
74. On the Cartesian plane denote by  $H$  the orthogonal projection of the origin  $O=(0,0)$  on the segment  $AB$  with endpoints  $A=(2,0)$  and  $B=(0,1)$ . What is the distance between  $O$  and  $H$ ?
- A)  $2\sqrt{5}/5$
  - B)  $\sqrt{5}/3$
  - C)  $5\sqrt{2}/3$
  - D)  $3\sqrt{5}/2$
  - E)  $\sqrt{5}/5$

75. The number

$$\sqrt{\left(\frac{3\sqrt{5}}{5}\right)^{-2} - \left(\frac{3}{2}\right)^{-2}}$$

equals one of the following. Which one?

- A)  $1/3$
- B)  $1/4$
- C)  $\sqrt{5}/3$
- D)  $\sqrt{5}/2$
- E)  $1/2$

76. If the slope of the line joining the point  $A$  of Cartesian coordinates  $(a, 2)$ , with the point  $B$ , of Cartesian coordinates  $(4, b)$ , equals 3, what is the relationship between  $a$  and  $b$ ?

- A)  $b = 14 - 3a$
- B)  $b = 12 + 3a$
- C)  $b = 12 - 3a$
- D)  $b = 14 - 2a$
- E)  $b = 12 - 2a$

77. The sum of the perimeters of a square and an equilateral triangle is 29 cm, and the length of the side of the square exceeds the triangle's one by 2 cm. How many square centimeters is the area of the triangle?

- A)  $9\sqrt{3}/4$
- B)  $11\sqrt{3}/4$
- C)  $13\sqrt{3}/4$
- D)  $4\sqrt{3}$
- E)  $\sqrt{5}/3$

78. A solid of a given material has a uniform density of 2 g/cm<sup>3</sup> and the volume  $V_0$  at 20°C. The volume  $V$  of the solid varies with the temperature  $T$  according to

$$V - V_0 = V_0 \times 0,002 \times (T - 20^\circ)$$

If the mass is 10g, what is the volume at  $T = 40^\circ\text{C}$ ?

- A) 5,2 cm<sup>3</sup>
- B) 5,04 cm<sup>3</sup>
- C) 5,02 cm<sup>3</sup>
- D) 5,002 cm<sup>3</sup>
- E) 5,5 cm<sup>3</sup>

79. Two forces of equal intensity  $F$  are applied at a point and form an angle of  $30^\circ$ . How intense should a third force applied at the same point be to obtained an equilibrium condition?

- A)  $F\sqrt{3}$
- B)  $F\sqrt{2}$
- C)  $2F\sqrt{3}$
- D)  $2F$
- E)  $3F/2$

80. A straight uniform bar with endpoints  $A$  and  $B$  is 6 meters long. It is placed vertically, and hinged at  $A$  to a fixed point. A horizontal force of 5N (Newton) is applied halfway. How intense



**should an opposite force be, if we apply it at a point P 2 meters away from A in order to obtain an equilibrium condition?**

- A) 7,5 N
- B) 5,5 N
- C) 8 N
- D) 5 N
- E) 6,5 N

\*\*\*\*\* FINE DELLE DOMANDE \*\*\*\*\*

**In tutti i quesiti proposti la soluzione è la risposta alla lettera A)**