# LUCRARE SCRISĂ LA LIMBA STRĂINĂ – ENGLEZĂ

#### A. Partea I: CITIT

(Citirea cu atenție)

Choose the correct answer a, b, c, or d.

The Christ the King statue (Portuguese: *Cristo Rei*) is a Catholic monument and holy place dedicated to the Sacred Heart of Jesus Christ overlooking the city of Lisbon in the central part of Portugal. It was inspired by the Christ the Redeemer statue in Rio de Janeiro (Brazil), after the Cardinal Patriarch of Lisbon visited that monument. The project was inaugurated on 17 May 1959, at a time when Portugal was being ruled by the authoritarian President of the Council of Ministers António de Oliveira Salazar (permission to build the monument was ultimately given by Salazar). The giant statue in cement was erected to express gratitude because the Portuguese were spared the effects of World War II.

#### 1. The article informs us that ...

a	Christ the King was Catholic.
b	the statue of <i>Cristo Rei</i> looks above the city of Lisbon.
c	Cristo Rei represents both a statue and a religious place of worship.
d	Christ the King was situated in the central part of Lisbon.

#### 2. We learn from the article that ...

a	the statue was created after the one in Rio de Janeiro.
b	the permission to build the statue was granted by Cardinal Patriarch of Lisbon.
c	the monument was built during World War II.
d	António de Oliveira Salazar visited the monument.

#### 3. The statue was put up...

a	to raise the effects of World War II.
b	to show appreciation.
c	to spare the Portuguese.
d	to have a giant cement monument.

The word papyrus refers to a thin paper-like material made from the pith of the papyrus plant, *Cyperus papyrus*. It can also refer to a document written on sheets of papyrus joined together side by side and rolled up into a scroll, an early form of a book. The plural for such documents is papyri.

Papyrus is first known to have been used in ancient Egypt (at least as far back as the First Dynasty), as the *Cyperus papyrus* plant was a wetland plant that was once abundant in Southern Sudan along with the Nile Delta of Egypt. Papyrus was also used throughout the Mediterranean region and in Kingdom of Kush. Ancient Egyptians are thought to have used papyrus as a writing material, as well as employing it commonly in the construction of other artifacts such as reed boats, mats, rope, sandals, and baskets.

# 4. We learn from this passage that ...

a	papyrus describes a paper-like side.
b	papyrus is a fabric created from a plant.
c	Cyperus papyrus is the name given to a thin material.
d	the term papyrus comes from the Mediterranean region and Kingdom of Kush.

#### 5. Based on the text we find out that ...

a	Egyptians employed people to construct papyri.
b	Mediterranean people invented papyri in Kingdom of Kush.
c	papyrus was only abundant in Southern Sudan.
d	papyrus was used for the first time by Egyptians.

Fado is a music genre, which can be traced to the 1820s in Portugal, but probably with much earlier origins. The only reliable information on the history of Fado was orally transmitted and goes back to the 1820s and 1830s at best.

Although the origins are difficult to trace, today Fado is commonly regarded as simply a form of song that can be about anything, but must follow a certain traditional structure. In popular belief, Fado is a form of music characterized by sad tunes and lyrics, often about the sea or the life of the poor, and infused with a sentiment of resignation, fatefulness and melancholia. This is loosely captured by the Portuguese word *saudade*, or "longing", symbolizing a feeling of loss (a permanent, irreparable loss and its consequent lifelong damage). This is similar to the character of the music genre Morna from Cape Verde, which may be historically linked to Fado in its earlier form but has retained its rhythmic heritage.

6. Fado is generally used to designate....

a	a style of music.
b	a trace in Portugal.
c	a reliable info.
d	Portuguese origins.

#### 7. Fado has ...

a	lyrics about people's heritage.
b	a sea-based characteristic.
c	a traditional construction.
d	a song about poor life at sea.

# 8. The Portuguese word *saudade* means...

a	permanent.
b	another music genre.
c	rhythmic heritage.
d	longing and loss.

The United States Capitol dome is situated above the United States Capitol which reaches upwards to 288 feet (88 m) in height and 96 feet (29 m) in diameter. The dome was designed by Thomas U. Walter, the fourth Architect of the Capitol, and constructed between 1855 and 1866 at a cost of \$1,047,291 (equivalent to \$220 million in 2013). The dome is not stone, but cast iron carefully painted to appear to be made of the same stone as the main capitol building. It is actually two domes, one inside the other, and the total weight is 14.1 million pounds (6,400 t).

The origin of the first dome began with the Capitol design contest sponsored by Secretary of State Thomas Jefferson, at the behest of President George Washington, in 1792. The winner of the contest, Doctor William Thornton, inserted a dome in his original design for the building. Thornton drew upon the Roman Pantheon for inspiration with the neoclassical dome and associated portico.

# 9. The United States Capitol ...

1	
a	has a length of 96 feet (29 m).
b	has a height of 288 feet (88 m).
c	is placed under the US Capitol dome.
d	was built by Thomas Jefferson.

#### 10. The dome was built from...

a	iron.
b	stone.
c	painted stone.
d	the same stone as the main capitol.

# 11. What was added to Doctor William Thornton's original design?

a	a dome
b	a new building
c	a Roman Pantheon
d	a capital design

Malta, officially known as the Republic of Malta is a Southern European island country consisting of an archipelago in the Mediterranean Sea. It lies 80 km south of Italy, 284 km east of Tunisia, and 333 km north of Libya. The country covers just over 316 km² with a population of just fewer than 450,000, making it one of the world's smallest and most densely populated countries. The capital of Malta is Valletta, which is the smallest national capital in the European Union. Malta has two official languages: Maltese and English.

Malta's location has historically given it great strategic importance as a naval base, and a succession of powers, including the Phoenicians, Carthaginians, Romans, Moors, Normans, Sicilians, Spanish, Knights of St. John, French and British, have ruled the islands. The country became a republic in 1974, and although no longer a Commonwealth realm, remains a current member state of the Commonwealth of Nations. Malta was admitted to the United Nations in 1964 and to the European Union in 2004; in 2008, it became part of the Eurozone.

# 12. Republic of Malta is a country situated...

a	south of Italy, Tunisia and Libya.
b	in a Southern European peninsula.
С	in the Mediterranean Sea.
d	close to European islands.

# 13. What is the country surface?

a	284 km <sup>2</sup>
b	$80 \text{ km}^2$
c	$333 \text{ km}^2$
d	316 km <sup>2</sup>

# 14. The country is one of the....countries in the world.

a	most unpopulated	
b	smallest and most densely inhabited	
С	richest	
d	British	

# 15. When did the country become independent?

a	1974
b	1964
c	2004
d	2008

# B. Partea a II – a: ELEMENTE DE GRAMATICĂ ȘI VOCABULAR

(Gramatică)

# Choose one correct answer a, b, c or d:

16. ... idea was to visit the exhibition?

a	Who
b	Whose
c	Which
d	What

17. She gave me a ... belt on my birthday!

a	leather wonderful blue
b	leather blue wonderful
c	blue leather wonderful
d	wonderful blue leather

18. I won't know the results for .... days.

a	a couple of
b	a little
С	a great couples of
d	much more

19. He said he... at eight o'clock, but it's already a quarter to nine.

a	will have come	
b	will be come	
c	would come	
d	will coming	

20. After I ... finished working, I switched off the machine.

a	had
b	have
c	having
d	to have

21. I ... not agree with the Prime Minister's policy!

a	am
b	do
c	can`t
d	to have

22. She said that they ... leave at once.

a	shall
b	will
c	need
d	should

23. I really don't like the idea. Neither... I.

a	do
b	don`t
c	nor
d	like

24. I know nothing about televisions, so when mine broke down, I took it to the shop to...

a	having had it repaired.
b	have repaired it.
c	have it repaired.
d	have had it repaired.

25. He is appearing in ... Court next week.

a	a
b	one
c	the
d	-

26. Two ... were fired, because they were always turning up late.

a	employees
b	employers
С	applicants
d	applications

27. Many 18-year-olds are tired of being... on their parents.

a	independent
b	depending
С	dependent
d	dependant

28. The children can get to school five minutes earlier if they take a short... through the garden.

a	pass
b	link
С	path
d	cut

29. Unfortunately the library provides no ... for photocopying.

a	reason
b	facilities
c	desires
d	amenities

30. The flight attendant shall be serving coffee immediately after ...

a	take-off.
b	airlift.
c	airborne.
d	descent.

31. They bought the children an ice cream to...for their disappointment.

a	compensate
b	recover
С	do
d	settle

32. He has no...of winning.

8	ı	bad luck
ł	)	case
(	2	chance
(	1	guilt

33. The accused man was able to ...that he had not been at the scene of the crime.

a	dare
b	signify
c	risk
d	prove

34. He went on a long holiday to recover...his illness.

a	of
b	from
c	by
d	in

35. I couldn't find...information about the trip.

a	an
b	any
c	many
d	no

# B. Partea a III-a: SCRIS

36. Which is the correct word order?

a	Music fans mourned the death of the popular pop British singer Amy Winehouse.
b	Music fans mourned the death of the British pop popular singer Amy Winehouse.
c	Music fans mourned the death of the popular British pop singer Amy Winehouse.
d	Music fans mourned the death of the singer popular British pop Amy Winehouse.

# 37. What text type is it?

Growing pressure on people in their 50s and 60s to stay in paid work is set to divert grandparents from helping their working daughters and sons with childcare, according to a report today from the Joseph Rowtree Foundation.

 T				
a	formal note			
b	story			
c	memorandum			
d	article			

38. In what type of letter would you find the following sentence?

Because I know you do a great deal to help the members of my section, I feel I can turn to you with a matter that has caused us much personal frustration and even more wasted time.

a	of complaint and a second seco
b	of invitation
С	of apology
d	of congratulation

39. Your organization produces a high-quality service, and I can contribute to this with my leadership skills and my ability to work under pressure. This line appears in a letter...

•	cristip skills that my ability to work under pressure. This thie appeals in a least				
	a	of requesting advice.			
	b	of giving information.			
	c	of giving advice.			
	d	of application.			

# 40. Which sentence is **incorrect**?

a	Have you seen Hitchcock's new movie trailer?		
b	Have you seen the Hitchcock's new movie trailer?		
c	Have you seen the new movie of Hitchcock's?		
d	Have you seen Hitchcock's movie trailer?		

41. What is the proper ending of an informal letter?

a	Best regards,	
b	I look forward to speaking with you personally!	
c	Bye for now!	
d	If you have an interest in my background, I would be pleased to hear from you.	

# 42. Choose the right connector:

I need an office to myself...I can get some work done.

a	so
b	to
c	for
d	although

# 43. Which is the right linking word?

I phoned...I need to speak to you.

a	because
b	so as
c	due to
d	so that

# 44. Choose the right conjunction.

I came here...you could give me an explanation.

a	as if
b	until
С	so that
d	while

45. Which is the correct way to decline an **informal** invitation?

a	I'm afraid I would not be able to come.		
b	I would really like to, but I'm engaged in another meeting tonight.		
С	I am terribly sorry, but unfortunately I have other plans.		
d	Thanks, but I can't.		

# BAREM DE EVALUARE ȘI APRECIERE A TESTULUI GRILĂ LA ENGLEZĂ

1	c	16	b	31	a
2	a	17	d	32	c
3	b	18	a	33	d
4	b	19	c	34	b
5	d	20	a	35	b
6	a	21	b	36	c
7	c	22	d	37	d
8	d	23	a	38	a
9	b	24	c	39	d
10	a	25	d	40	b
11	a	26	a	41	С
12	С	27	c	42	a
13	d	28	d	43	a
14	b	29	b	44	c
15	a	30	a	45	d

# LUCRARE SCRISĂ LA MATEMATICĂ

- 1. Valoarea parametrului  $m \in \mathbb{R}$  pentru care ecuația  $mx^2 2mx + m + 2 = 0$  admite rădăcini reale distincte, este:
  - a) m = 2; b)  $m \in \{1; 4\}$ ; c)  $m \in (-1; +\infty)$ ; d)  $m \in (-\infty; 0)$ ; e) m = 5.
- 2. Progresia aritmetică  $(a_n)_{n\geq 1}$  de rație r este caracterizată de relațiile:  $a_2-a_6+a_4=-7$  și  $a_8-a_7=2a_4$ . Atunci  $a_1$  și r sunt:
  - **a)**  $a_1 = 3, r = 2$ ; **b)**  $a_1 = 4, r = 1$ ; **c)**  $a_1 = 2, r = 5$ ; **d)**  $a_1 = -5, r = 2$ ; **e)**  $a_1 = -2, r = 2$ .
- 3. Parametrul  $m \in \mathbb{R}$  pentru care ecuațiile  $2x^2 (3m+2)x + 12 = 0$  și  $4x^2 (9m-2)x + 36 = 0$  au o rădăcină comună, este:
  - **a)** m = 3; **b)** m = 2; **c)** m = 1; **d)** m = 0; **e)** m = -3.
- 4. Dacă  $\sin \alpha = \frac{3}{5}$  și  $0 < \alpha < \frac{\pi}{2}$ , atunci valoarea expresiei  $\frac{ctg\alpha + tg\alpha}{ctg\alpha tg\alpha}$  este:
  - a)  $\frac{23}{7}$ ; b)  $\frac{1}{7}$ ; c)  $\frac{25}{17}$ ; d)  $\frac{25}{3}$ ; e)  $\frac{25}{7}$ .
- 5. Produsul soluțiilor ecuației  $27^x 13 \cdot 9^x + 13 \cdot 3^{x+1} 27 = 0$  este:
  - **a)** 3; **b)** 1; **c)** 7; **d)** 4; **e)** 0.
- 6. Dacă  $\frac{x-5}{3+i} + \frac{y+7}{7-i} = 5$  unde  $x, y \in \mathbb{R}$  și  $i^2 = -1$ , atunci:
  - **a)** x = 20, y = 8; **b)** x = 10, y = 18; **c)** x = -10, y = 18; **d)** x = 1, y = 8; **e)** x = -2, y = 7.
- 7. Dacă  $\log_2 5 = a$  și  $\log_2 3 = b$  atunci  $\log_{15} 12$  este:
  - **a)**  $\frac{2a+b}{5a+b}$ ; **b)**  $\frac{a+b}{a-b}$ ; **c)**  $\frac{2a-b}{a+b}$ ; **d)**  $\frac{a-b}{a+b}$ ; **e)**  $\frac{2+b}{a+b}$ .
- 8. Termenul din dezvoltarea  $\left(\frac{\sqrt[3]{a}}{b} + \frac{b}{\sqrt[4]{a}}\right)^{22}$  care îl conține pe  $\frac{1}{a^2}$  este:
  - **a)**  $T_{15}$ ; **b)**  $T_{14}$ ; **c)**  $T_{16}$ ; **d)**  $T_{17}$ ; **e)**  $T_{18}$ .
- 9. Se consideră dreapta variabilă  $(d_{\lambda}): x y + 1 + \lambda(2x y) = 0$ . Determinați parametrul  $\lambda \in \mathbf{R}$  astfel încât dreapta  $(d_{\lambda})$  este perpendiculară pe dreapta (d): 3x + 2y 2 = 0.
  - **a)**  $\lambda = \frac{1}{3}$ ; **b)**  $\lambda = -\frac{1}{4}$ ; **c)**  $\lambda = \frac{1}{2}$ ; **d)**  $\lambda = \frac{1}{6}$ ; **e)**  $\lambda = -\frac{1}{3}$ .
- 10. Dacă  $M = \sum_{a \in A} a^2$ , unde  $A = \left\{ a \in \mathbf{R} \mid \text{ matricea} \begin{pmatrix} 0 & a & -a \\ -3 & -4 & -3a \\ -a & a & 0 \end{pmatrix} \text{ nu este inversabilă} \right\}$ , atunci:
  - **a)**  $M = \frac{2}{7}$ ; **b)**  $M = \frac{1}{9}$ ; **c)**  $M = \frac{2}{9}$ ; **d)**  $M = \frac{49}{9}$ ; **e)**  $M = \frac{9}{13}$ .
- 11. Fie matricea  $A = \begin{pmatrix} 2 & 4 \\ 5 & 8 \end{pmatrix}$ . Atunci matricea  $A 9I_2 4A^{-1}$  este:
  - **a)**  $O_2$ ; **b)**  $I_2$ ; **c)** A; **d)**  $A + I_2$ ; **e)**  $A I_2$ .
- 12. Să se determine parametrii  $a,b \in \mathbb{R}$  pentru care funcția  $f : \mathbb{R} \{1\} \to \mathbb{R}$ ,  $f(x) = \frac{ax^2 + b}{x 1}$  are tangenta la grafic în punctul de abscisă  $x_0 = 2$  dreapta de ecuație (d) : y = -2x + 13.

**a)** 
$$a = 2, b = 1$$
; **b)**  $a = \frac{1}{4}, b = 2$ ; **c)**  $a = \frac{7}{4}, b = 1$ ; **d)**  $a = \frac{3}{4}, b = 4$ ; **e)**  $a = \frac{7}{4}, b = 2$ .

13. Valoarea limitei  $\lim_{x\to 0} \frac{1-\cos x}{x(\sqrt{1+x}-1)}$  este:

**a)** 0; **b)** 
$$\frac{1}{\sqrt[3]{3}}$$
; **c)** 1; **d)**  $\frac{1}{4}$ ; **e)**  $\frac{1}{2}$ .

14. Se consideră funcția  $f: \mathbf{R} \to \mathbf{R}, \ f(x) = \sqrt{1 + x^2} - ax, a \in \mathbf{R}$ . Atunci valoarea integralei  $\int_0^1 x \cdot f(x) \, dx \text{ este:}$ 

**a)** 
$$\frac{1}{3}(2\sqrt{2}-5)-\frac{a}{4}$$
; **b)**  $\frac{1}{3}(\sqrt{2}+1)-\frac{a}{2}$ ; **c)**  $\frac{1}{3}(2\sqrt{2}-1)-\frac{a}{3}$ ; **d)**  $\frac{1}{3}(2\sqrt{2}-7)-\frac{a}{3}$ ; **e)**  $\frac{\sqrt{2}}{3}-\frac{a}{2}$ .

15. Aria domeniului mărginit de graficul funcției  $f: \left[0, \frac{\pi}{4}\right] \to \mathbf{R}, f(x) = \frac{1}{\cos^2 x}$  și dreptele x = 0,

$$y = 0$$
 și  $x = \frac{\pi}{4}$  este:

a) 
$$1 + \ln 2$$
; b)  $\frac{2}{3}$ ; c)  $2 \ln 2$ ; d)1; e) 2.

# BAREM DE EVALUARE ȘI APRECIERE A TESTULUI GRILĂ LA MATEMATICĂ

1	d
2	d
3	a
4	e
2 3 4 5 6	e
6	b
7	e
8	d
9	b
10	d
11	b
12	e
13	С
14	С
15	d