

# ENGLEZA

## TEST GRILĂ LA LIMBA ENGLEZĂ CONCURS DE ADMITERE ÎN ȘCOALA DE MAIȘTRI MILITARI ȘI SUBOFIȚERI A FORȚELOR AERIENE “TRAIAN VUIA” SESIUNEA 2012

### PARTEA I: CITIT

Avatar is a 2009 American epic science fiction film written and directed by James Cameron, and starring Sam Worthington, Zoe Saldana, Stephen Lang, Michelle Rodriguez, Joel David Moore, Giovanni Ribisi and Sigourney Weaver. The film is set in the mid-22nd century, when humans are mining a precious mineral called unobtainium on Pandora, a lush habitable moon of a gas giant in the Alpha Centauri star system.

Development of Avatar began in 1994, when Cameron wrote an 80-page treatment for the film. Filming was supposed to take place after the completion of Cameron's 1997 film Titanic, for a planned release in 1999, but according to Cameron, the necessary technology was not yet available to achieve his vision of the film. Work on the language of the film's extraterrestrial beings began in summer 2005, and Cameron began developing the screenplay and fictional universe in early 2006. Avatar was officially budgeted at \$237 million. Other estimates put the cost between \$280 million and \$310 million for production and at \$150 million for promotion. Avatar premiered in London on December 10, 2009, and was internationally released on December 16 and in the United States and Canada on December 10, 2009, to positive critical reviews and commercial success. The film broke several box office records during its release and became the highest-grossing film of all time in North America and worldwide, surpassing Titanic, which had held the records for the previous twelve years. It also became the first film to gross more than \$2 billion.

1. Who is the director of Avatar?
  - a. Sam Worthington
  - b. Alpha Centauri
  - c. James Cameron
  - d. Sigourney Weaver
  
2. When was Avatar first developed?
  - a. 1994
  - b. 1997
  - c. 2005
  - d. 2009
  
3. How was Avatar officially budgeted?
  - a. 150 million
  - b. 237 million
  - c. 280 million
  - d. 310 million
  
4. When was Avatar internationally released ?

- a. December 16, 2009
  - b. December 10, 2009
  - c. December 18, 2009
  - d. December 25, 2009
5. What famous movie did Avatar surpass?
    - a. Gladiator
    - b. Titanic
    - c. The Bodyguard
    - d. The Godfather

Michael Joseph Jackson (b, 1958 – d,2009) was an American recording artist, entertainer, and businessman. Often referred to as the King of Pop, or by his initials MJ, Jackson is recognized as the most successful entertainer of all time by Guinness World Records. The seventh child of the Jackson family, he debuted on the professional music scene along with his brothers as a member of The Jackson 5 in 1964, and began his solo career in 1971.

In the early 1980s, Jackson became a dominant figure in popular music. The music videos for his songs, including those of "Beat It", "Billie Jean", and "Thriller", were credited with breaking down racial barriers and transforming the medium into an art form and promotional tool.

Jackson's 1982 album Thriller is the best-selling album of all time. His other records, including Off the Wall (1979), Bad (1987), Dangerous (1991), and HIStory (1995), also rank among the world's best-selling. Jackson is one of the few artists to have been inducted into the Rock and Roll Hall of Fame twice. He was also inducted into the Dance Hall of Fame as the first and only dancer from pop and rock music. Some of his other achievements include multiple Guinness World Records; 13 Grammy Awards as well as the Grammy Legend Award and the Grammy Lifetime Achievement Award; 26 American Music Awards, more than any other artist, including the "Artist of the Century" and "Artist of the 1980s"; 13 number-one singles in the United States in his solo career, more than any other male artist in the Hot 100 era.

6. When was Michael Joseph Jackson born?
  - a. 1964
  - b. 1971
  - c. 1958
  - d. 2009
7. He debuted as a member of .....
  - a. King of Pop
  - b. The Jackson 5
  - c. Billie Jean
  - d. Thriller
8. When did he begin his solo career ?
  - a. 1964
  - b. 1980
  - c. 1958
  - d. 1971
9. Which is his best-selling album of all time?

- a. Bad
- b. Dangerous
- c. Thriller
- d. Off the Wall

10. How many American Music Awards did he win?

- a. 26
- b. 13
- c. 21
- d. 100

11. What was Michael Jackson often referred to?

- a. Billie Jean
- b. Bad
- c. Dangerous
- d. King of Pop

The Summer Olympic Games or the Games of the Olympiad are an international multi-sport event, occurring every four years, organized by the International Olympic Committee. Medals are awarded in each event, with gold medals for first place, silver for second and bronze for third, a tradition that started in 1904. The Winter Olympics were also created due to the success of the Summer Olympics.

The Olympics have increased from a 42-event competition with fewer than 250 male athletes to a 300-event sporting celebration with over 10,000 competitors from 205 nations. Organizers for the 2008 Summer Olympics in Beijing expected approximately 10,500 athletes to take part in the 302 events on the program for the games.

The United States has hosted four Summer Olympic Games, more than any other nation. The United Kingdom is hosting its third Summer Olympic Games in its capital, London, making London the first city to host the Summer Olympic Games three times. Australia, France, Germany and Greece have all hosted the Summer Olympic Games twice. Other countries that have hosted the Summer Olympics are Belgium, China, Canada, Finland, Italy, Japan, Mexico, Netherlands, South Korea, Spain, the Soviet Union and Sweden. In the 2016, Rio de Janeiro will host the first Summer Games in South America.

12. What medal does the second place win?

- a. Gold
- b. Silver
- c. Copper
- d. Bronze

13. How often do the Games of the Olympiad occur?

- a. yearly
- b. every ten years
- c. every five years
- d. every four years

14. How many athletes did the 2008 Summer Olympics organizers expect?

- a. 250
- b. 10,500
- c. 300
- d. 5000

15. Who will host the Summer Games in South America?
- a. Rio de Janeiro
  - b. Buenos Aires
  - c. Beijing
  - d. London

**PARTEA A II-A: GRAMATICĂ ȘI VOCABULAR**

16. I ..... from school in 1991.

- a. graduate
- b. have graduated
- c. graduated
- d. can graduate

17. I saw a lot of ..... on the floor.

- a. mouse
- b. mouses
- c. mices
- d. mice

18. She reads very much. She is ..... in English.

- a. interesting
- b. interest
- c. interested
- d. entrusted

19. If I ..... you, I would play the piano.

- a. am
- b. were
- c. was
- d. is

20. When I was in the military school I had to wear ..... uniform.

- a. the
- b. a
- c. an
- d. some

21. Mark ..... tennis now.

- a. play
- b. is playing
- c. played
- d. plays

22. I lost my wallet while I ..... to Paris.

- a. travelled

- b. am travelling
  - c. was travelling
  - d. travelling
23. They have lots of animals species on the farm, including .....
- a. oxs
  - b. oxes
  - c. oxen
  - d. oxises
24. Things were going from bad to .....
- a. bad
  - b. badder
  - c. more bad
  - d. worse
25. If I had money, I ..... a car.
- a. will buy
  - b. would have bought
  - c. would buy
  - d. had bought
26. Tom is a lazy boy. He never ..... his bed in the morning.
- a. do
  - b. makes
  - c. does
  - d. make
27. I need to ..... some money from you.
- a. pay
  - b. lend
  - c. borrow
  - d. receive
28. NCO ..... for non-commissioned officer.
- a. means
  - b. makes
  - c. represents
  - d. stands
29. She bought half a dozen peaches. She bought .....
- a. twelve
  - b. six
  - c. twenty-four
  - d. ten

30. His wife is dead and now he is a .....
- a. bachelor
  - b. widow
  - c. widower
  - d. man
31. Mary ..... her sister.
- a. remembers me
  - b. remembers me of
  - c. reminds me
  - d. reminds me of
32. If today is Thursday, then what`s the day after tomorrow?
- a. Tuesday
  - b. Friday
  - c. Saturday
  - d. Wednesday
33. Can this camera ..... good photos?
- a. make
  - b. do
  - c. take
  - d. achieve
34. The ink left a ..... on the white table-cloth.
- a. colour
  - b. fault
  - c. stain
  - d. colourful
35. My family and I went swimming in a ..... next to a campsite.
- a. beach
  - b. ridge
  - c. forest
  - d. lake

### **PARTEA A III-A: SCRIS**

36. Choose the correct conclusion to a formal letter:
- a. I`m looking forward to hear from you soon
  - b. Looking forward to hearing from you soon
  - c. Looking forward to see you soon
  - d. I`m seeing you soon

37. Which is the correct salutation of a formal letter when you do not know the name of the person you are writing to?
- Best wishes,
  - Dear friend,
  - Dear Sir/Madam,
  - Dear Jane,
38. Choose the most appropriate line to formulate an informal request:
- Will you show me the way to the supermarket?
  - Would you be so kind as to guide me to the supermarket?
  - How can I get to the supermarket?
  - Excuse me, could you tell me how to get to the supermarket?
39. Which is the correct order?
- More details about this job I would like to know.
  - I would like to know more details about this job.
  - I would like know more details to about this job.
  - This job I would like to know more details.
40. Choose the most appropriate line to cancel reservation formally:
- Cancel, please, my reservation!
  - Please, cancel my reservation!
  - I would like to cancel my reservation!
  - I want to cancel my reservation!
41. Choose an ending for an informal letter:
- Yours faithfully,
  - Yours sincerely,
  - Love, John
  - Respectfully yours,
42. Which sentence can you find in a formal letter:
- Love and hugs,
  - Sorry, I've taken so long to write to you,
  - How are you?
  - I am writing to apply for the job of .....
43. Choose the correct sentence:
- I can't come to the party.
  - I can`nt come to the party.
  - I cannot come to the party.

d. I cant come to the party.

44. Which is the right beginning for a formal letter:

- a. Nice to hear from you .....
- b. What a surprise to receive a letter from you .....
- c. We would like to inform you that .....
- d. Best wishes,

45. Choose the most appropriate line to make a formal invitation:

- a. Let`s go for a walk!
- b. Can you go for a walk with me?
- c. Would you like to go for a walk?
- d. Do you feel like going for a walk?

### GRILĂ DE CORECTARE

1.	c
2.	a
3.	b
4.	a
5.	b
6.	c
7.	b
8.	d
9.	c
10.	a
11.	d
12.	b
13.	d
14.	b
15.	a
16.	c
17.	d
18.	c
19.	b
20.	b
21.	b
22.	c
23.	c

24.	d
25.	c
26.	b
27.	c
28.	d
29.	b
30.	c
31.	d
32.	c
33.	c
34.	c
35.	d
36.	b
37.	c
38.	c
39.	b
40.	c
41.	c
42.	d
43.	a
44.	c
45.	c



# MATEMATICA - FIZICA

## TEST GRILĂ

### DE EVALUARE A CUNOȘTIȚELOR LA MATEMATICĂ-FIZICĂ

#### FILIERA DIRECTĂ – MAIȘTRI MILITARI

1. Soluția inecuației  $-4x^2 + x + 3 < 0$  aparține domeniului:

- a)  $x \in (-\infty, +1)$                       b)  $x \in \left(-\frac{3}{4}, +1\right)$   
c)  $x \in \left(-\infty, -\frac{3}{4}\right) \cup (1, +\infty)$                       d)  $x \in (1, +\infty)$

2. Soluția ecuației  $64^x - 32 = 0, x \in R$  este:

- a)  $\frac{8}{6}$                       b)  $\frac{11}{6}$                       c)  $\frac{7}{6}$                       d)  $\frac{5}{6}$

3. Primii patru termeni ai șirului cu termenul general dat de relația  $(1-n)\sqrt{n}$ , unde  $n \in N^*$  cu  $n > 0$  sunt:

- a)  $0; -\sqrt{8}; -\sqrt{3}; -\sqrt{4};$                       b)  $1; -\sqrt{8}; -2\sqrt{3}; -3\sqrt{8};$   
c)  $0; -\sqrt{2}; -2\sqrt{3}; -6$                       d)  $0; \sqrt{8}; 2\sqrt{3}; 3\sqrt{8};$

4. Suma primilor 40 de termeni ai unei progresii aritmetice cu  $a_1 = -3; a_{61} = 117$  este:

- a) 1440;                      b) 3450;                      c) 1520;                      d) 3477.

5. Soluția ecuației  $\frac{x!}{(x-4)!} = \frac{12 \cdot x!}{(x-2)!}$  este:

- a) 18;      b) 8;      c) 12;      d) 6.

6. Partea reală a numărului complex  $\frac{1+3i}{2+5i}$  este :

- a)  $\frac{17}{29}$       b)  $\frac{19}{29}$       c)  $\frac{27}{29}$       d)  $\frac{23}{29}$

7. Se consideră matricele:  $A = \begin{pmatrix} 1 & 1 & 1 \\ 1 & 2 & -1 \\ 3 & 1 & -1 \end{pmatrix}$  și  $B = \begin{pmatrix} 3 & 0 & -3 \\ 0 & 3 & 0 \\ 0 & 0 & 3 \end{pmatrix}$ . Determinantul matricei AB este:

- a) -216 ;      b) 216 ; c) -27 ; d) 27 .

8. Fie punctele A(7,15) și B(9,17). Să se calculeze coordonatele mijlocului M al segmentului [AB].

- a) M(24,32);    b) M(16,24);    c) M(8,16);    d) M(32,40).

9. Să se calculeze valoarea expresiei:  $E = \cos \frac{3\pi}{4}$ .

- a)  $E = \frac{\sqrt{2}}{4}$ ;    b)  $E = \frac{\sqrt{2}}{2}$ ;    c)  $E = \frac{\sqrt{3}}{2}$ ;    d)  $E = \frac{-\sqrt{2}}{2}$ .

10. Care dintre mărimile de mai jos este scalar?

- a) masa;      b) viteza;      c) greutatea;      d) accelerația.

11. Ținând cont că notațiile sunt cele utilizate din manualul de fizică, energia cinetică se poate exprima:

- a)  $\frac{mv}{2}$       b)  $F \cdot v$       c)  $\frac{G \cdot v}{2m}$       d)  $\frac{mv^2}{2}$

12. Un corp parcurge prima jumătate din drumul său cu viteza  $v_1=60$  km/h și a doua jumătate cu viteza  $v_2=40$  km/h. Viteza medie realizată pe distanța respectivă este:

- a) 40 km/h      b) 48 km/h      c) 36 km/h      d) 16 km/h

13. Energia potențială elastică înmagazinată într-un resort de constantă elastică  $K=200$  N/m, de care e atârnat un corp de masă  $m=10$  kg este:

- a) 5J      b) 20J      c) 15J      d) 25J

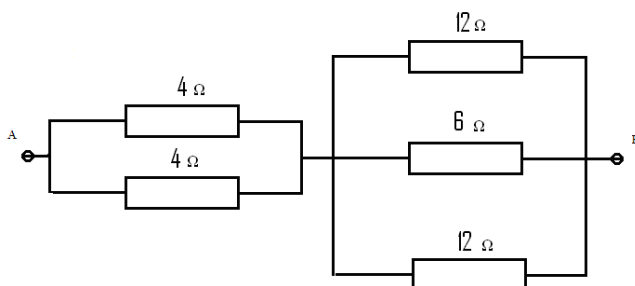
14. Dacă notațiile sunt cele utilizate în manualele de fizică, unitatea de măsură în S.I. a mărimii fizice descrise de relația  $P = UI$  este:

- a) A      b) V      c) W      d) kWh

15. Energia electrică disipată prin efect Joule pe un consumator are expresia:

- a)  $W_e = \frac{U^2}{R} t$       b)  $W_e = \frac{U \cdot I}{t}$       c)  $W_e = \frac{I^2 \cdot t}{R}$       d)  $W_e = \frac{U}{Q}$

16. Rezistența echivalentă a circuitului este:



- a)  $4 \Omega$       b)  $5 \Omega$       c)  $1 \Omega$       d)  $2 \Omega$

17. Se dau 10 surse electrice identice conectate în paralel. Fiecare sursă are t.e.m.  $E$  și rezistența interioară  $r$ . Bateria astfel alcătuită se leagă la un rezistor care are rezistența  $R=0,9r$ . Raportul dintre intensitatea curentului electric de scurtcircuit (la conectarea directă a bornelor bateriei) și intensitatea curentului electric prin rezistor este egal cu:

- a) 1      b) 5      c) 10      d) 2

18. Un bec de putere  $P=30W$ , la bornele căruia, în timpul funcționării, tensiunea este  $U=60V$ , are rezistența la  $0^{\circ}C$ ,  $R_0=37,5\Omega$ . Considerând cunoscut coeficientul de variație termică al rezistivității filamentului  $\alpha=10^{-3}grad^{-1}$ , temperatura filamentului este:

- a)  $2000^{\circ}C$       b)  $2200^{\circ}C$       c)  $2100^{\circ}C$       d)  $1800^{\circ}C$

## GRILA DE CORECTARE

NUMĂR ITEM	RĂSPUNS
1.	<b>c</b>
2.	<b>d</b>
3.	<b>c</b>
4.	<b>a</b>
5.	<b>d</b>
6.	<b>a</b>
7.	<b>a</b>
8.	<b>c</b>
9.	<b>d</b>
10.	<b>a</b>
11.	<b>d</b>
12.	<b>b</b>
13.	<b>d</b>
14.	<b>c</b>
15.	<b>a</b>
16.	<b>b</b>
17.	<b>c</b>
18.	<b>b</b>