

This exam contains 4 pages (including this cover page) and 11 questions.  
Total of points is 104.

Tabla de puntaje (uso del profesor)

Question	Points	Score
1	2	
2	20	
3	2	
4	2	
5	3	
6	3	
7	2	
8	10	
9	20	
10	20	
11	20	
Total:	104	

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- (2 points) ¿Cuál es la diferencia entre el aprendizaje humano y el aprendizaje de máquina?  
Explique con sus palabras los límites de la inteligencia artificial.
- (20 points) Consider the function  $f(x) = 3x^3 + 2x^2 + x + 1$ .
  - (10 points) Calculate  $f'(x)$ .
  - (10 points) Calculate  $f''(x)$ .
- (2 points) One of these things is not like the others; one of these things is not the same.  
Which one is different?
  - John
  - Paul

- C. George  
D. Ringo  
E. Socrates
4. (2 points) One of these things is not like the others; one of these things is not the same. Which one is different? A. John B. Paul C. George D. Ringo E. Socrates
5. (3 points) Mark box if true.
- ☐  $2+2=4$   
☐  $\frac{d}{dx}(x^2 + 1) = 2x + 1$   
☐ The Moon is made of cheese.
6. (3 points) Mark box if true.
- ☐  $2+2=4$   
☐  $\frac{d}{dx}(x^2 + 1) = 2x + 1$   
☐ The Moon is made of cheese.
7. (2 points) Element with  $Z = 92$  is:
- |      |       |
|------|-------|
| 1) H | 5) Ba |
| 2) O | 6) Pb |
| 3) F | 7) U  |
| 4) S | 8) Pu |

8. (10 points) In no more than one paragraph, explain why the earth is round.

9. (20 points) Explain blah, blah...

10. (20 points) Explain blah, blah...

11. (20 points) Explain blah, blah...

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