PEMERINTAH PROVINSI LAMPUNG
DINAS PENDIDIKAN DAN KEBUDAYAAN
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ASESMEN SUMATIF AKHIR SEMESTER GENAP
TAHUN PELAJARAN 2025/2026

Mata Pelajaran : Matematika Tingkat Lanjut
Kelas : XII
Hari/Tanggal : Rabu / 4 Maret 2026
Waktu : 11.15 s.d 12.30

1. $\int (3x^2 + 4x - 5)\, dx = ...$
   A. $x^3 + 2x^2 - 5x + C$
   B. $x^3 + 2x^2 - 5 + C$
   C. $3x^3 + 4x^2 - 5x + C$
   D. $x^3 + 4x^2 - 5x + C$
   E. $x^3 + 2x^2 + 5x + C$

2. $\int (6x^3 - 2x + 7)\, dx = ...$
   A. $(3/2)x^4 - x^2 + 7x + C$
   B. $(3/2)x^4 - x^2 + C$
   C. $6x^4 - x^2 + 7x + C$
   D. $(3/2)x^4 - 2x^2 + 7 + C$
   E. $(3/2)x^4 - x + 7x + C$

3. $\int (8x^4 - 3x^2 + 1)\, dx = ...$
   A. $(8/5)x^5 - x^3 + x + C$
   B. $(8/5)x^5 - x^2 + x + C$
   C. $8x^5 - x^3 + x + C$
   D. $(8/5)x^5 - x^3 + C$
   E. $(8/5)x^4 - x^3 + x + C$

4. $\int (5x^5 - 10x^2)\, dx = ...$
   A. $(5/6)x^6 - (10/3)x^3 + C$
   B. $(5/6)x^6 - 10x^3 + C$
   C. $5x^6 - (10/3)x^3 + C$
   D. $(5/6)x^6 - (10/2)x^3 + C$
   E. $(5/6)x^5 - (10/3)x^3 + C$

5. $\int (7x - 9)\, dx = ...$
   A. $(7/2)x^2 - 9x + C$
   B. $7x^2 - 9x + C$
   C. $(7/2)x^2 - 9 + C$
   D. $(7/2)x^2 - (9/2)x + C$
   E. $7x^2 - 9 + C$

6. $\int (12x^3 + 6x^2 - 4x)\, dx = ...$
   A. $3x^4 + 2x^3 - 2x^2 + C$
   B. $12x^4 + 6x^3 - 4x^2 + C$
   C. $3x^4 + 2x^3 - 4x^2 + C$
   D. $3x^4 + 6x^3 - 2x^2 + C$
   E. $4x^4 + 2x^3 - 2x^2 + C$

7. $\int (9x^2 - 16)\, dx = ...$
   A. $3x^3 - 16x + C$
   B. $9x^3 - 16x + C$
   C. $3x^3 - 8x + C$
   D. $3x^3 - 16 + C$
   E. $x^3 - 16x + C$

8. $\int (4x^5 + 2x^3 - x)\, dx = ...$
   A. $(2/3)x^6 + (1/2)x^4 - (1/2)x^2 + C$
   B. $(4/6)x^6 + (2/4)x^4 - (1/2)x^2 + C$
   C. $(2/3)x^6 + (1/2)x^4 - x^2 + C$
   D. $(2/3)x^5 + (1/2)x^4 - (1/2)x^2 + C$
   E. $(2/3)x^6 + (1/2)x^3 - (1/2)x^2 + C$

9. $\int (15x^4 - 5x^3 + 2)\, dx = ...$
   A. $3x^5 - (5/4)x^4 + 2x + C$
   B. $15x^5 - (5/4)x^4 + 2x + C$
   C. $3x^5 - (5/4)x^3 + 2x + C$
   D. $3x^5 - (5/4)x^4 + C$
   E. $(3/5)x^5 - (5/4)x^4 + 2x + C$

10. $\int (2x^6 - 3x^2 + 8)\, dx = ...$
    A. $(2/7)x^7 - x^3 + 8x + C$
    B. $(2/7)x^7 - x^2 + 8x + C$
    C. $2x^7 - x^3 + 8x + C$
    D. $(2/7)x^6 - x^3 + 8x + C$
    E. $(2/7)x^7 - x^3 + C$

11. $\int (10x^3 - 7x + 6)\, dx = ...$
    A. $(5/2)x^4 - (7/2)x^2 + 6x + C$
    B. $(5/2)x^4 - (7/2)x + 6x + C$
    C. $10x^4 - (7/2)x^2 + 6x + C$
    D. $(5/2)x^3 - (7/2)x^2 + 6x + C$
    E. $(5/2)x^4 - (7/2)x^2 + C$

12. $\int (14x^4 - 21x^2)\, dx = ...$
    A. $(14/5)x^5 - 7x^3 + C$
    B. $(14/5)x^5 - 21x^3 + C$
    C. $(14/4)x^5 - 7x^3 + C$
    D. $(14/5)x^4 - 7x^3 + C$
    E. $(14/5)x^5 - 7x^2 + C$

13. $\int (x^7 - 4x^3 + 9)\, dx = ...$
    A. $(1/8)x^8 - x^4 + 9x + C$
    B. $(1/7)x^8 - x^4 + 9x + C$
    C. $(1/8)x^7 - x^4 + 9x + C$
    D. $(1/8)x^8 - 4x^4 + 9x + C$
    E. $(1/8)x^8 - x^3 + 9x + C$

14. $\int (16x^3 + 5x - 11)\, dx = ...$
    A. $4x^4 + (5/2)x^2 - 11x + C$
    B. $16x^4 + (5/2)x^2 - 11x + C$
    C. $4x^3 + (5/2)x^2 - 11x + C$
    D. $4x^4 + (5/2)x - 11x + C$
    E. $4x^4 + (5/2)x^2 + C$

15. $\int (20x^4 - 12x + 3)\, dx = ...$
    A. $4x^5 - 6x^2 + 3x + C$
    B. $20x^5 - 6x^2 + 3x + C$
    C. $4x^5 - 12x^2 + 3x + C$
    D. $4x^5 - 6x^2 + C$
    E. $(4/5)x^5 - 6x^2 + 3x + C$

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16. $\int (2x+3)^5\,dx =$
- A. $(2x+3)^6/6 + C$
- B. $(2x+3)^6/12 + C$
- C. $(2x+3)^{10} + C$
- D. $(2x+3)^4/8 + C$
- E. $6(2x+3)^5 + C$

17. $\int 4x(x^2+1)^3\,dx =$
- A. $(x^2+1)^4/4 + C$
- B. $(x^2+1)^4/2 + C$
- C. $(x^2+1)^3/3 + C$
- D. $4(x^2+1)^4 + C$
- E. $(x^2+1)^5/5 + C$

18. $\int 3x^2(x^3-5)^4\,dx =$
- A. $(x^3-5)^5/5 + C$
- B. $(x^3-5)^5/15 + C$
- C. $(x^3-5)^4/4 + C$
- D. $3(x^3-5)^5 + C$
- E. $(x^3-5)^6/6 + C$

19. $\int (5x-1)^7\,dx =$
- A. $(5x-1)^8/8 + C$
- B. $(5x-1)^8/40 + C$
- C. $(5x-1)^7/7 + C$
- D. $(5x-1)^9/9 + C$
- E. $8(5x-1)^7 + C$

20. $\int 6x(3x^2+2)^2\,dx =$
- A. $(3x^2+2)^3/3 + C$
- B. $(3x^2+2)^3/6 + C$
- C. $(3x^2+2)^2/2 + C$
- D. $6(3x^2+2)^3 + C$
- E. $(3x^2+2)^4/4 + C$

21. $\int 2x(x^2+4)^5\,dx =$
- A. $(x^2+4)^6/6 + C$
- B. $(x^2+4)^6/12 + C$
- C. $(x^2+4)^5/5 + C$
- D. $2(x^2+4)^6 + C$
- E. $(x^2+4)^7/7 + C$

22. $\int 7x^6(x^7+1)^3\,dx =$
- A. $(x^7+1)^4/4 + C$
- B. $(x^7+1)^4/28 + C$
- C. $(x^7+1)^3/3 + C$
- D. $7(x^7+1)^4 + C$
- E. $(x^7+1)^5/5 + C$

23. $\int 8x(4x^2-3)^2\,dx =$
- A. $(4x^2-3)^3/3 + C$
- B. $(4x^2-3)^3/6 + C$
- C. $(4x^2-3)^2/2 + C$
- D. $8(4x^2-3)^3 + C$
- E. $(4x^2-3)^4/4 + C$

24. $\int 5x^4(x^5+2)^6\,dx =$
- A. $(x^5+2)^7/7 + C$
- B. $(x^5+2)^7/35 + C$
- C. $(x^5+2)^6/6 + C$
- D. $5(x^5+2)^7 + C$
- E. $(x^5+2)^8/8 + C$

25. $\int 9x^2(3x^3-1)^4\,dx =$
- A. $(3x^3-1)^5/5 + C$
- B. $(3x^3-1)^5/15 + C$
- C. $(3x^3-1)^4/4 + C$
- D. $9(3x^3-1)^5 + C$
- E. $(3x^3-1)^6/6 + C$

26. $\int 4x(2x^2+5)^3\,dx =$
- A. $(2x^2+5)^4/4 + C$
- B. $(2x^2+5)^4/8 + C$
- C. $(2x^2+5)^3/3 + C$
- D. $4(2x^2+5)^4 + C$
- E. $(2x^2+5)^5/5 + C$

27. $\int 6x^5(x^6-4)^2\,dx =$
- A. $(x^6-4)^3/3 + C$
- B. $(x^6-4)^3/18 + C$
- C. $(x^6-4)^2/2 + C$
- D. $6(x^6-4)^3 + C$
- E. $(x^6-4)^4/4 + C$

28. $\int 3x(x^2-7)^5\,dx =$
- A. $(x^2-7)^6/6 + C$
- B. $(x^2-7)^6/12 + C$
- C. $(x^2-7)^5/5 + C$
- D. $3(x^2-7)^6 + C$
- E. $(x^2-7)^7/7 + C$

29. $\int 2x^3(x^4+1)^4\,dx =$
- A. $(x^4+1)^5/5 + C$
- B. $(x^4+1)^5/10 + C$
- C. $(x^4+1)^4/4 + C$
- D. $2(x^4+1)^5 + C$
- E. $(x^4+1)^6/6 + C$

30. $\int 10x^9(x^{10}-3)^2\,dx =$
- A. $(x^{10}-3)^3/3 + C$
- B. $(x^{10}-3)^3/30 + C$
- C. $(x^{10}-3)^2/2 + C$
- D. $10(x^{10}-3)^3 + C$
- E. $(x^{10}-3)^4/4 + C$

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