

x

x, x, x
3

4
 $\lim_{x \rightarrow 0} \frac{\sin x}{x} = 1 \quad \lim_{x \rightarrow \infty} \left(1 + \frac{1}{x}\right)^x = e$

2

1

N

X

2

3

1

1

2

3

4

2

1

2

3

4

二、一元函数微分学

1

1

2

3

4

5

2

1

2

3

4

5

n

6

1

1

Rolle

Lagrange

2

L'Hospital

3

4

- 5
- 6
- 2
- 1
- 2
- 3
- 4
- 5
- 6

$$\frac{0}{0} - 0$$

三、一元函数积分学

- 1
- 1
- 2
- 3
- 4
- 5
- 2
- 1
- 2
- 3
- 4
- 5

1

1

2

3

Newton Leibniz

4

5

2

1

2

3

4

5

6

7

四、多元函数微分学

1

1

2

3

4

5

2

1

2

3

4

5

6

$$F(x, y, z) = 0$$

$$z = z(x, y)$$

7

五、排列与组合

1

1

2

3

2

1

2

3

六、概率论初步

1

1

2

3

4

5

6

7

2

1

2

3

4

5

6

测试形式及试卷结构

100

50

15

30

32

15

8

共计 50 道单项选择题，要求从所给出的四个备选项中选出一个符合题目要求的选项，并将正确的答案填入题目后面的括号内。

1 $y = \ln(2^x - 1)$.
 A , B 0, C [1, 2] D [0,

2 $f(x) = \frac{1-x}{x}, g(x) = \frac{1}{x}, f(g(x))$.
 A $x-1$ B $1-x$ C $\frac{1}{x-1}$ D $\frac{1}{x}$

3 $\lim_n \frac{1^2 + 2^2 + 3^2 + \dots + n^2}{n^2}$.
 A $\frac{1}{2}$ B 1 C 0 D

4 $\lim_{x \rightarrow 3} \frac{x^2 - 5x + 6}{x^2 - 9}$.
 A $\frac{1}{6}$ B $\frac{2}{7}$ C $\frac{1}{3}$ D $\frac{2}{3}$

5 $\lim_x \frac{\sin x}{x-1}$.
 A 1 B 0 C 1 D

6 $x \rightarrow 0 \ln(1-x) \sim x$.
 A B
 C D

7 $\lim_{x \rightarrow 1} \frac{\sin(x-1)}{x-1}$.
 A 1 B 0 C 1 D

8 $\lim_{x \rightarrow 0} (1-2x)^{\frac{1}{x}}$.

- A e^2 B e C \sqrt{e} D e^2

9 $f(x) = \frac{x-3}{\sqrt{x-2}}$.

- A $(2, \quad)$ B $(2,3) (3, \quad)$ C $(\quad, 2)$ D $[2,3] [3, \quad)$

10 $f(x) = x - x_0$ $f(x) = x - x_0$.

- A B C D

11 $y = f(x) - x - 1$ $f(1) = 3$ $\lim_{h \rightarrow 0} \frac{f(1+h) - f(1)}{h}$.

- A 1 B 1 C 3 D 4

12 $f(x) = \sqrt{x} - xe^x$ $f(1)$.

- A $1 - e$ B $\frac{1}{2} - e$ C $\frac{1}{2} - 2e$ D $1 - 2e$

13 $f(x) = \cos(e^{2x})$ $f(0)$.

- A $2\sin 1$ B $2\cos 1$ C $2\sin 1$ D $2\cos 1$

14 $y = \frac{x}{1-x^2} dy$.

- A $\frac{x^2}{(1-x^2)^2}$ B $\frac{x^2}{(1-x^2)^2} dx$ C $\frac{1-x^2}{(1-x^2)^2}$ D $\frac{1-x^2}{(1-x^2)^2} dx$

15 $f(x) = \ln(1-x)$ $f'(x)$.

- A $\frac{1}{(1-x)^2}$ B $\frac{x}{(1-x)^2}$ C $\frac{1}{(1-x)^2}$ D $\frac{x}{(1-x)^2}$

16 $x = y - e^y$ y .

- A $\frac{x}{e^y - 1}$ B $\frac{1}{e^y - 1}$ C $\frac{x}{e^y - 1}$ D $\frac{1}{e^y - 1}$

17 $y = 2x^2$ $(1,2)$.

- A $y = 2x - 2$ B $y = 2x - 2$ C $y = 4x - 2$ D $y = 4x - 2$

- 18 $\lim_{x \rightarrow 1} \frac{\ln x}{x-1}$.
 A 0 B 1 C $\frac{1}{2}$ D
- 19 $\lim_{x \rightarrow 0} \left(\frac{1}{2} \arctan x\right)$.
 A 0 B C 1 D
- 20 $y = x \sin x$ $[0, 2]$.
 A B C D
- 21 $y = x^2 e^{-x}$.
 A $(\quad, 0)$ B $(0, 2)$ C $(2, \quad)$ D (\quad, \quad)
- 22 $f(x_0) = 0, f'(x_0) = 0,$ $y = f(x)$ $x = x_0$.
 A B
 C

- A $\frac{1}{2}$ B $\frac{3}{2}$ C $\frac{5}{3}$ D $\frac{8}{3}$
- 35 $\int x^3 \cos x dx$.
- A 1 B 1 C 0 D $\frac{3}{3}$
- 36 $\int_0^4 \frac{x^2}{\sqrt{2x-1}} dx$.
- A $\frac{1}{2}$ B $\frac{19}{2}$ C $\frac{22}{3}$ D $\frac{3}{2}$
- 37 $\int_0^1 xe^x dx$.
- A 1 B 1 C $\frac{1}{2}e$ D $e-1$
- 38 $\int_0^1 \frac{x}{(1-x)^2} dx$.
- A 1 B $\frac{1}{2}$ C $\frac{1}{2}$ D
- 39 $\int_y^x \frac{1}{x} dy$ $\int_y^x x dx$.
- A $\frac{1}{2} \ln 2$ B $\frac{3}{2} \ln 2$ C $\frac{1}{3} \ln 2$ D $\frac{8}{3}$
- 40 $\int_y^x \sin x dx$ $\int_x^{\frac{x}{2}} x dx$ $\int_x^x x dx$.
- A $\frac{3^2}{4}$ B 2 C $\frac{^2}{4}$ D $\frac{^2}{2}$
- 41 $\lim_{\substack{x \rightarrow 0 \\ y \rightarrow 0}} (x-y) \sin \frac{1}{x}$.
- A 0 B 1 C 1 D
- 42 $\int_z \ln(x^2 - y^2 - 1) dz$.
- A $x^2 - y^2 - 1$ B $1 - x^2 - y^2 - 2$ C $x^2 - y^2 - 2$ D $x^2 - y^2 - 1$

- 43 $z = e^{\frac{y^2}{x}}$ $\frac{z}{x} \Big|_{(1,1)}$.
 A $2e$ B e C e D $2e$
- 44 $z = x^2 + 3xy + y^2$ $dz \Big|_{(1,2)}$.
 A $2dx + dy$ B $3dx + 6dy$ C $8dx + 7dy$ D $6dx + 8dy$
- 45 $x^2 + y^2 + z^2 + 4z = 0$ $z = z(x, y)$ $\frac{z}{x} =$.
 A $\frac{y}{2 - z}$ B $\frac{xz}{2 - z}$ C $\frac{xy}{2 - z}$ D $\frac{x}{2 - z}$
- 46 $z = x^3 + y^3$ $\frac{z^2}{x + y}$.
 A $6x + 6y$ B 0 C $6x$ D $6y$
- 47 $f(x, y) = x^3 + y^3 + 3x^2 + 3y^2 + 9x$.
 A $(1, -1)$ B $(1, 0)$ C $(2, 0)$ D $(1, 2)$
- 48 $A \cap B$ $p(AB) = 0$.
 A A, B B AB
 C $p(A \cap B) = p(A) + p(B)$ D $p(A) = 0, p(B) = 0$
- 49 20×3 .
 A $\frac{27}{95}$ B $\frac{3}{190}$ C $\frac{1}{18}$ D $\frac{1}{9}$
- 50 X

X	0	1	2	3	4
P	0.1	0.3	0.2	0.1	0.3

 $E(X)$.
 A 1 B 0 C 2 D 2.2

高等数学辅导（一）参考答案

1 B	2 A	3 A	4 A	5 B	6 B
7 C	8 A	9 A	10 A	11 C	12 C
13 C	14 D	15 A	16 D	17 D	18 B
19 C	20 A	21 B	22 C	23 C	24 A
25 A	26 B	27 C	28 A	29 C	30 D
31 B	32 D	33 C	34 D	35 D	36 C
37 B	38 D	39 B	40 C	41 A	42 A
43 B	44 C	45 D	46 B	47 A	48 C
49 C	50 D				

共计 50 道单项选择题, 要求从所给出的四个备选项中选出一个符合题目要求的选项, 并将正确的答案填入题目后面的括号内。

1

A $\ln x^2 = 2 \ln x$

B $e^{\frac{1}{2} \ln x} = \frac{1}{\sqrt{x}}$

C $(\sqrt{x})^2 = \sqrt{x^2}$

D $x = \sin(\arcsin x)$

2 $f(x) = x^3 - x^2 - 1$, $f(f(1)) =$

A 1

B 3

C 0

D 1

3 $\lim_{n \rightarrow \infty} \frac{n^3 - n - 1}{5n^3 - n^2 - n}$

A $\frac{1}{5}$

B 0

C $\frac{1}{5}$

D

4 $\lim_{x \rightarrow 1} \frac{x^3 - 1}{x^2 - x - 2}$

A $\frac{1}{2}$

B 1

C $\frac{3}{2}$

D 0

5 $x \rightarrow 0$

A e^{-x}

B $\sin \frac{1}{x}$

C $\ln(2 - x)$

D $1 - \cos x$

6 $\lim_{x \rightarrow \infty} \frac{1}{2x^2 - x - 1} \cos x$

A $\frac{1}{2}$

B 0

C $\frac{1}{2}$

D

7 $\lim_{x \rightarrow 1} \frac{\sin(x - 1)}{x^2 - 1}$

- 8 $\lim_{x \rightarrow 0} \frac{\sqrt{1-x} - 1}{x}$.
 A 0 B $\frac{1}{2}$ C 1 D $\frac{1}{2}$
- 9 $\lim_{x \rightarrow 0} 1 + \frac{1}{x^{\frac{x}{2}}}$.
 A e B $2e$ C $\frac{1}{3}e$ D $\frac{1}{2}e$
- 10 $y = \frac{x^2 - 1}{x - 2}$.
 A $x - 2$ B $x - 1$ C $x - 2$ D $x - 1$
- 11 $f(x) = \begin{cases} x - 1, & x > 0 \\ x, & x \leq 0 \end{cases}$ $f(x)$.
 A $x > 0$ B $x < 0$ C $\lim_{x \rightarrow 0} f(x) = 0$ D $\lim_{x \rightarrow 0} f(x) = 1$
- 12 $f(x) = \frac{1}{\ln(x - 2)}$.
 A $(2, \quad)$ B $(2,3) \cup (3, \quad)$
 C $(\quad, 2)$ D $[2,3] \cup [3, \quad)$
- 13 x_0 .
 A B
 C D
- 14 $f(x) = \begin{cases} 2e^{2x} - x - 0 & x > 0 \\ 2 - ax - x - 0 & x < 0 \end{cases}$ a .
 A 1 B 1 C 2 D 4

- 15 $f(x) = (1 - x^3)\arccot x$, $f(0) = ?$.
 A 0 B 1 C 1 D 2
- 16 $f(4x) = \ln x$, $f(x) = ?$.
 A $\frac{4}{x}$ B $\frac{1}{x}$ C $\frac{1}{4x}$ D $\frac{1}{2x}$
- 17 $y = \sin \ln x^5$, $dy = ?$.
 A $\frac{1}{x^5} \cos \ln x^5 dx$ B $\frac{5}{x} \cos \ln x dx$
 C $\frac{5}{x} \sin \ln x^5 dx$ D $\frac{5}{x} \cos \ln x^5 dx$
- 18 $y = xe^x$, $y' = ?$.
 A $(x - 3)^2 e^x$ B $x - 3e^x$ C $(x - 3)e^x$ D $(2x - 3)e^x$
- 19 $x^3 - y^3 = 3xy - 1$, $y|_{x=0} = ?$.
 A $\frac{1}{2}$ B 0 C $\frac{1}{2}$ D 1
- 20 $x = 1 - t^2$, $\frac{dy}{dx} = ?$.
 $y = \cos t$.
 A $\frac{\sin t}{t}$ B $\frac{\sin t}{2t}$ C D $\frac{\sin t}{2t}$
- 21 $f(x) = (x - 3)(x - 4)(x - 5)$, $f'(x) = 0$.
 A B C D
- 22 $\lim_{x \rightarrow 0} \frac{\tan x - x}{x - \sin x} = ?$.
 A $\frac{1}{3}$ B 0 C 1 D 2
- 23 $\lim_{x \rightarrow 0} \frac{e^x - e^{-x}}{\sin ax} = 1 - a$.

$$32 \quad \int \frac{1}{x^2(1-x^2)} dx$$

A $\frac{1}{x} \arctan x + C$

B $x \arctan x + C$

C

D $x \arctan x - C$

$$33 \quad \int 2xe^{x^2} dx$$

A $x - xe^{x^2} + C$

B $xe^{x^2} + C$

C $e^{x^2} + C$

D $x - e^{x^2} + C$

$$34 \quad \lim_{x \rightarrow 0} \frac{\int_0^x (1 - \cos t) dt}{x^3}$$

A $\frac{1}{6}$

B $\frac{1}{3}$

C $\frac{1}{2}$

D 1

$$35 \quad \frac{d}{dx} \int_a^b \arcsin x dx$$

A $\arcsin x$

B $\arcsin b - \arcsin a$

C $\frac{1}{\sqrt{1-x^2}}$

D 0

36

A $\int_1^1 \sin x dx$

B $\int_1^1 x^{2009} dx$

C $\int_1^1 e^x dx$

D $\int_1^1 (x \tan x) dx$

$$37 \quad \int_1^1 \sqrt{1-x^2} dx$$

A $\frac{1}{2}$

B 1

C $\frac{2}{3}$

D 0

$$38 \quad \int_0^{\frac{\pi}{2}} x \sin x dx$$

A $\frac{1}{2}$

B $\frac{1}{2}$

C

D 1

$$39 \quad \int_0^1 e^{-ax} dx (a > 0)$$

A a

B $\frac{1}{a}$

C 0

D

40 $y = \ln x$, $y = 1, y = 2$.
 A $e^2 - e$ B $e^2 - e$ C $e^2 - 2e$ D $e^2 - 2e$

41 $y = x^2$, $u^x, x = 2, x = x$.
 A $\frac{1}{6}$ B $\frac{1}{5}$ C D

42 $\lim_{\substack{x \rightarrow 0 \\ y \rightarrow 1}} \frac{e^x - y}{2x^2 - y^2}$.
 A 0 B $\frac{1}{5}$ C $\frac{3}{5}$ D 1

43 $z = ye^x \cos y$, $\frac{z}{y}$.
 A $ye^x \cos y$ B $ye^x \cos y - \sin y$
 C $e^x \cos y - e^x y \sin x$ D $e^x \cos y - e^x \sin x$

44 $\int_C e^{xy} dz \Big|_{(2,1)}$.
 A $e^2 dx - 2e^2 dy$ B $e^2 dx - e^2 dy$
 C $2e^2 dx - 2e^2 dy$ D $2e^2 dx - e^2 dy$

45 $x^2 - z^2 - y^2 e^z$, $z = z(x, y)$, $\frac{z}{y} =$.
 A $\frac{xz}{e^z - xy}$ B $\frac{2e^z}{2z - y^2 e^z}$ C $\frac{xy}{e^z - xy}$ D $\frac{2ye^z}{2z - y^2 e^z}$

46 $z = x^2 - 3y$, $\frac{z}{x - y}$.
 A $2x - 3y$ B $2x$ C $2x - 3$ D $3y$

- 47 $y = \frac{1}{x^2}$, .
- A $\frac{\sqrt{3}}{2}$ B $3\sqrt{3}$ C $\frac{\sqrt{3}}{3}$ D $\frac{3\sqrt{3}}{2}$
- 48 $A \cap B = p(A \cap B)$.
- A $p(A) \cap p(B)$ B $p(A) \cup p(B) \cup p(AB)$
- C $p(A) \cup p(AB)$ D $p(A) \cup p(\bar{B}) \cup p(\bar{A}\bar{B})$
- 49 $\frac{1}{5}, \frac{1}{3}, \frac{1}{4}$.
- A $\frac{3}{4}$ B $\frac{3}{5}$ C $\frac{2}{3}$ D $\frac{1}{2}$
- 50 $X \sim D(X=2)$ $D(X+3) =$.
- A 2 B 1 C 2 D 3

高等数学辅导（二）参考答案

- | | | | | | |
|------|------|------|------|------|------|
| 1 B | 2 B | 3 A | 4 B | 5 D | 6 A |
| 7 B | 8 D | 9 D | 10 A | 11 B | 12 B |
| 13 B | 14 D | 15 C | 16 B | 17 D | 18 C |
| 19 D | 20 B | 21 B | 22 D | 23 D | 24 C |
| 25 A | 26 C | 27 D | 28 B | 29 B | 30 B |
| 31 C | 32 A | 33 C | 34 A | 35 D | 36 D |
| 37 B | 38 D | 39 B | 40 A | 41 A | 42 D |
| 43 C | 44 A | 45 D | 46 B | 47 A | 48 C |
| 49 B | 50 C | | | | |

共计 50 道单项选择题, 要求从所给出的四个备选项中选出一个符合题目要求的选项, 并将正确的答案填入题目后面的括号内。

1 $f(x)$ $0,1$ $g(x) = f(x - \frac{1}{4}) - f(x + \frac{1}{4})$.

A $\frac{1}{4}, \frac{1}{4}$ B $\frac{1}{4}, \frac{1}{2}$ C $\frac{1}{4}, \frac{3}{4}$ D $\frac{1}{4}, \frac{5}{4}$

2 .

A $\ln x^2 = 2 \ln x$ B $e^{\frac{1}{2} \ln x} = \frac{1}{\sqrt{x}}$

C $(\sqrt{x})^2 = \sqrt{x^2}$ D $x = \sin(\arcsin x)$

3 $\lim_n \frac{\sqrt{n^2 - 3n}}{2n - 1}$.

A $\frac{1}{2}$ B C 0 D

4 $\lim_{x \rightarrow 1} f(x) = f(x) = x^3 - \frac{2x^2 - 1}{x - 1} = 2 \lim_{x \rightarrow 1} f(x) = \lim_{x \rightarrow 1} f(x)$.

A $\frac{5}{2}$ B $\frac{3}{2}$ C 0 D $\frac{1}{2}$

5 $x \rightarrow 0$ x .

A $\frac{\sin x}{\sqrt{x}}$ B $x^2(x - 1)$ C $\ln(1 - x)$ D $\frac{1}{\sin x}$

6 x $f(x) = \frac{1}{x}$ $\lim_x 2xf(x)$.

A 0 B 1 C 2 D

A $y = e^{-y} \sin(x - y)$ B $y = \frac{e^y}{\sin(x - y)} - 1$

C $y = \frac{\sin(x - y)}{e^y - \sin(x - y)}$ D $y = 0$

17 $\lim_{x \rightarrow 0} \frac{x - \sin x}{x^3} =$.

A 0 B $\frac{1}{6}$ C $\frac{1}{3}$ D 1

18 $\lim_{x \rightarrow 0} \left(\frac{1}{1 - x} - \frac{3}{1 - x^3} \right) =$.

A 1 B $\frac{1}{2}$ C 0 D

19 $x = x_0, f(x) = 0$ $x = x_0, f(x) = 0$ $x_0 = f(x)$.

A B C D

20 $y = 3x^4 - 8x^3 + 6x^2 - 5$.

A (, 0) B (0, 2) C (2,) D (,)

21 $y = 2x^2 - ax + 3$ $x = 1$ $a =$.

A 4 B 2 C $\frac{1}{3}$ D 1

22 $y = x^3$.

A (1,1) B (0,0) C (1,1) D (2,8)

23 $y = e^{-x}$ (,) .

A B C D

24 $y = \frac{1}{1 - x}$.

A $x = 0$ B $x = 1$ C $y = 1$ D $y = -1$

- 25 $y = x^2 - x - 2$ M $x = 3$ M .
 A (0,1) B (0,2) C (1,0) D (1,2)

- 26 $F(x) = \int f(x) dx$.
 A $F(x)dx = f(x) C$ B $F(x)dx = f(x) C$
 C $f(x)dx = F(x) C$ D $f(x)dx = F(x) C$

- 27 $\int \frac{\cos 2x}{\cos x \sin x} dx$.
 A $\sin x \cos x C$ B $2 \cos x \sin x C$
 C $\cos x \sin x C$ D $\sin x \cos x C$

- 28 $\int e^{3x} dx$.
 A $e^{3x} C$ B $\frac{1}{3}e^{3x} C$ C $3e^{3x} C$ D $\frac{1}{3}e^x C$

- 29 $\int \ln(x+1) dx$.
 A $x \ln(x-1) - x \ln(x+1) C$ B $x \ln(x-1) - x C$
 C $x \ln(x-1) - \ln(x-1) C$ D $x \ln(x-1) C$

- 30 $F(x) = \int_0^{x^2} e^{-t} dt$ $F(x)$.
 A 0 B xe^{-x^2} C $2xe^{-x^2}$ D $2x^2e^{-x^2}$

- 31 $\lim_{x \rightarrow 0} \frac{\int_0^x \sin t dt}{x^2}$.
 A 0 B $\frac{1}{2}$ C 1 D

- 32 $\int_1^1 f(x) dx$.
 A $f(x) = \frac{1}{x^2}$

C $f(x) = \frac{1}{(x-1)^2}$

D $f(x) = \frac{b-1}{\sqrt{1-x^2}} f(x) dx$

33

$f(b)$

3

$\int_a^b f(x) dx$

A

C 3

D 5

34

$\int_0^x e^x dx = \int_0^1 f(x) dx$

e^{-1}

B $2e^{-1}$

C $3e^{-1}$

D $3e^{-1}$

$\int_0^1 e^{\sin x} \cos x dx$

A $2e - 1$

B e

C $e - 1$

D $e - 1$

36

- 41 $f(x, y) = x^y = f\left(\frac{y}{x}, xy\right)$.
- A $\left(\frac{y}{x}\right)^{xy}$ B $\left(\frac{y}{x}\right)^{x \cdot y}$ C $(xy)^{\frac{y}{x}}$ D $(x \cdot y)^{xy}$
- 42 $z = f(x, y) = \tan(xy)$ $\frac{z}{x}$.
- A $\frac{y}{\cos^2(xy)}$ B $\frac{x}{\cos^2(xy)}$
- C $\frac{y}{\cos^2(xy)}$ D $\frac{x}{\cos^2(xy)}$
- 43 $z = \ln(x + y^2)$ $dz \Big|_{\substack{x=1 \\ y=0}}$.
- A $dx + dy$ B $dx - dy$ C dx D dy
- 44 $x^2 + y^2 + e^z = 0$ $z = z(x, y)$ $\frac{z}{x} =$.
- A $\frac{2x}{e^z}$ B 1 C $e^{-(x+y+z)}$ D $\frac{2y}{e^z}$
- 45 $z = (x + y)^3$ $\frac{\partial^2 z}{\partial x \partial y}$.
- A $3(x + y)$ B $3(x + y)^2$ C $6(x + y)$ D $6(x + y)^2$
- 46 $(1, 0)$ $f(x, y) = x^3 + y^3 + 3x^2 + 3y^2 + 9x$.
- A B C D
- 47 $x^2 + y^2 = 4$ $(x = 0, y = 0)$
- A 4 B $4 \cdot 2$ C 4 D 6
- 48 $P(AB)$.
- A $P(A) + P(B)$ B $P(A)P(B)$ C 1 D 0

48

0.8 0.5.

A 0.6 B 0.8 C 0.9 D 0.7

50 X

X	-2	-1	0	1	2
P	0.1	0.3	0.2	0.1	0.3

$E(X)$

A 0.2 B 1 C 1.2 D 2

高等数学辅导（三）参考答案

- | | | | | | |
|------|------|------|------|------|------|
| 1 C | 2 B | 3 A | 4 A | 5 C | 6 C |
| 7 B | 8 D | 9 B | 10 B | 11 B | 12 C |
| 13 A | 14 B | 15 D | 16 C | 17 B | 18 A |
| 19 D | 20 A | 21 A | 22 B | 23 B | 24 B |
| 25 C | 26 C | 27 D | 28 B | 29 A | 30 C |
| 31 B | 32 D | 33 B | 34 A | 35 B | 36 C |
| 37 B | 38 D | 39 A | 40 B | 41 A | 42 C |
| 43 C | 44 A | 45 C | 46 B | 47 C | 48 D |
| 49 C | 50 A | | | | |