

УТВЕРЖДАЮ  
 Декан ФМО Усманов С.Ф.



28.09. 2018 г.

⋮

( )

b38030141\_18\_0 .plx  
 38.03.01 - , 580100 -  
 " "

5

179,7

:

1


72

72

35,7

|             |                |      |      |      |
|-------------|----------------|------|------|------|
| ( < > < > ) | <b>1 (1.1)</b> |      |      |      |
|             | 18,3           |      |      |      |
|             |                |      |      |      |
|             | 36             | 36   | 36   | 36   |
|             | 36             | 36   | 36   | 36   |
|             | 0,3            | 0,3  | 0,3  | 0,3  |
|             | 72             | 72   | 72   | 72   |
|             | 72,3           | 72,3 | 72,3 | 72,3 |
|             | 72             | 72   | 72   | 72   |
|             | 35,7           | 35,7 | 35,7 | 35,7 |
|             | 180            | 180  | 180  | 180  |

( ):

... , ... 

( ):

... , ... 


3+:

( ) (

12.11.2015 . 1327)

38.03.01

38.03.01 - ,580100 - " 25.06.2018 " 11.

26 09 2018 . 2  
: 2018-2022 . .  


---

---

\_14\_ \_09\_ 2019 .



2019-2020

\_9\_ \_09\_ 2019 . \_2\_



---

---

\_\_\_\_\_ 2020 .



2020-2021

\_4\_ \_09\_ 2020 . \_1\_



---

---

\_\_\_\_\_ 2021 .

2021-2022

\_\_\_\_\_ 2021 .

---

---

\_\_\_\_\_ 2022 .

2022-2023

\_\_\_\_\_ 2022 .



|            |                 |
|------------|-----------------|
| 3.1.1      | ;               |
| <b>3.2</b> | :               |
| 3.2.1      | ,<br>« - » « ». |
| <b>3.3</b> | :               |
| 3.3.1      |                 |

| 4. ( ) |               |   |     |   |                    |   |  |
|--------|---------------|---|-----|---|--------------------|---|--|
|        | /             | / |     | - | .                  |   |  |
|        | <b>1.1.</b>   |   |     |   |                    |   |  |
| 1.1    | / /           | 1 | 2   |   | 1.1 2.3<br>2.8 2.1 | 0 |  |
| 1.2    | / /           | 1 | 2   |   | 2.1 2.5<br>3.4     | 0 |  |
| 1.3    | / /           | 1 | 4   |   | 2.2 2.8            | 0 |  |
| 1.4    | , / /         | 1 | 2   |   | 1.2 1.3<br>2.8 3.4 | 0 |  |
| 1.5    | / /           | 1 | 2   |   | 2.1 2.4<br>3.1     | 0 |  |
| 1.6    | : , ,<br>/ /  | 1 | 4   |   | 2.3 2.4<br>3.1     | 0 |  |
| 1.7    | / /           | 1 | 2   |   | 1.1 2.3<br>2.1 3.1 | 0 |  |
| 1.8    | 2- ,3-<br>/ / | 1 | 2   |   | 2.1 2.7<br>3.1     | 0 |  |
| 1.9    | / /           | 1 | 2   |   | 2.4 2.5<br>3.4     | 0 |  |
| 1.10   | / /           | 1 | 2   |   | 1.2 1.3            | 0 |  |
| 1.11   | / /           | 1 | 2   |   | 2.5 2.8            | 0 |  |
| 1.12   | / /           | 1 | 6   |   | 2.3                | 0 |  |
| 1.13   | / /           | 1 | 0,3 |   |                    | 0 |  |
|        | <b>2.2.</b>   |   |     |   |                    |   |  |
| 2.1    | / /           | 1 | 2   |   | 1.1 1.3<br>2.2     | 0 |  |
| 2.2    | / /           | 1 | 2   |   | 1.3 2.5<br>2.1     | 0 |  |
| 2.3    | , ,<br>/ /    | 1 | 4   |   | 2.1 2.3<br>3.1     | 0 |  |
| 2.4    | / /           | 1 | 2   |   | 1.1 2.3            | 0 |  |
| 2.5    | / /           | 1 | 2   |   | 2.1 2.5            | 0 |  |
| 2.6    | / /           | 1 | 2   |   | 2.3 2.1<br>3.1     | 0 |  |

|             |                   |   |   |  |                    |   |  |
|-------------|-------------------|---|---|--|--------------------|---|--|
| 2.7         | / /               | 1 | 2 |  | 1.2 2.6            | 0 |  |
| 2.8         | . / /             | 1 | 2 |  | 2.5 2.1<br>3.1     | 0 |  |
| 2.9         | / /               | 1 | 4 |  | 2.3 2.1<br>3.1     | 0 |  |
| 2.10        | / /               | 1 | 2 |  | 1.1 1.3<br>2.1     | 0 |  |
| 2.11        | . / /             | 1 | 2 |  | 2.1 3.1            | 0 |  |
| 2.12        | / /               | 1 | 6 |  | 2.7 2.1<br>3.1     | 0 |  |
| <b>3.3.</b> |                   |   |   |  |                    |   |  |
| 3.1         | . / /             | 1 | 2 |  | 1.1                | 0 |  |
| 3.2         | . / /             | 1 | 2 |  | 2.1 2.7            | 0 |  |
| 3.3         | / /               | 1 | 4 |  | 2.1                | 0 |  |
| 3.4         | . / /             | 1 | 2 |  | 1.1 2.6            | 0 |  |
| 3.5         | . / /             | 1 | 2 |  | 2.1 2.2            | 0 |  |
| 3.6         | . / /             | 1 | 4 |  | 2.6 2.1<br>3.1     | 0 |  |
| <b>4.4.</b> |                   |   |   |  |                    |   |  |
| 4.1         | . / /             | 1 | 2 |  | 1.2 2.3<br>2.6 3.2 | 1 |  |
| 4.2         | . / /             | 1 | 2 |  | 2.3 2.5<br>3.3     | 0 |  |
| 4.3         | . / /             | 1 | 4 |  | 2.6 2.5<br>2.7 3.2 | 0 |  |
| 4.4         | . / /             | 1 | 2 |  | 1.2 2.7<br>3.2     | 0 |  |
| 4.5         | . / /             | 1 | 2 |  | 2.4 3.2            | 0 |  |
| 4.6         | ( ,<br>)<br>. / / | 1 | 4 |  | 2.7 2.6<br>2.4 3.3 | 0 |  |
| 4.7         | / /               | 1 | 2 |  | 1.2                | 1 |  |
| 4.8         | . / /             | 1 | 2 |  | 2.4 3.3            | 0 |  |
| 4.9         | . / /             | 1 | 4 |  | 2.4 3.2            | 0 |  |
| 4.10        | . / /             | 1 | 2 |  | 1.1 2.4<br>3.3     | 1 |  |

|           |                |   |      |  |                    |   |  |
|-----------|----------------|---|------|--|--------------------|---|--|
| 4.11      | / /            | 1 | 2    |  | 2.4 2.1<br>3.3 3.2 | 0 |  |
| 4.12      | . / /          | 1 | 4    |  | 2.4 2.3<br>3.3     | 0 |  |
| <b>5.</b> |                |   |      |  |                    |   |  |
| 5.1       | . / /          | 1 | 2    |  | 1.2 2.7<br>3.2     | 1 |  |
| 5.2       | / /            | 1 | 2    |  | 2.1 3.2            | 0 |  |
| 5.3       | . / /          | 1 | 4    |  | 2.4 3.2            | 0 |  |
| 5.4       | . / /          | 1 | 2    |  | 1.2 2.7<br>3.2     | 0 |  |
| 5.5       | . / /          | 1 | 2    |  | 2.4 2.1<br>3.2     | 0 |  |
| 5.6       | / /            | 1 | 4    |  | 2.7 3.2            | 0 |  |
| 5.7       | . / /          | 1 | 2    |  | 1.1 3.2            | 0 |  |
| 5.8       | . / /          | 1 | 2    |  | 2.1 2.8<br>3.3 3.2 | 0 |  |
| 5.9       | . / /          | 1 | 4    |  | 2.7 2.6<br>3.2     | 0 |  |
| 5.10      | / /            | 1 | 2    |  | 1.2 3.2            | 0 |  |
| 5.11      | / /            | 1 | 2    |  | 2.7 3.2            | 0 |  |
| 5.12      | . , , ,<br>/ / | 1 | 4    |  | 1.3 2.3<br>2.7 3.2 | 0 |  |
| 5.13      | / /            | 1 | 35,7 |  |                    | 0 |  |

|             |  |  |  |  |  |  |  |
|-------------|--|--|--|--|--|--|--|
| <b>5.</b>   |  |  |  |  |  |  |  |
| <b>5.1.</b> |  |  |  |  |  |  |  |
| 1.          |  |  |  |  |  |  |  |
| 2.          |  |  |  |  |  |  |  |
| 3.          |  |  |  |  |  |  |  |
| 4.          |  |  |  |  |  |  |  |
| 5.          |  |  |  |  |  |  |  |
| 6.          |  |  |  |  |  |  |  |
| 7.          |  |  |  |  |  |  |  |
| 8.          |  |  |  |  |  |  |  |
| 9.          |  |  |  |  |  |  |  |
| 10.         |  |  |  |  |  |  |  |
| 11.         |  |  |  |  |  |  |  |
| 12.         |  |  |  |  |  |  |  |
| 13.         |  |  |  |  |  |  |  |
| 14.         |  |  |  |  |  |  |  |
| 15.         |  |  |  |  |  |  |  |
| 16.         |  |  |  |  |  |  |  |
| 17.         |  |  |  |  |  |  |  |
| 18.         |  |  |  |  |  |  |  |
| 19.         |  |  |  |  |  |  |  |
| 20.         |  |  |  |  |  |  |  |
| 21.         |  |  |  |  |  |  |  |

22.  
 23.  
 24.  
 25. ,  
 26.  
 27. ,  
 28. , ,  
 29.  
 30.  
 31. ,  
 32.

1.

**5.2.** ( )

**5.3.**

1. - 5-10 , 2.1, 2.4., 2.5, 3.2.  
 2. - 2.  
 3. - 3.  
 4. - 4.  
 5.

« »

1)  
 2)  
 3)  
 4)  
 5)  
 6)  
 7)  
 8)  
 9)  
 10)  
 11)  
 12)  
 13)  
 14)  
 15)  
 16)  
 17)  
 18)  
 19)  
 20)  
 21)  
 22)  
 23)  
 24)  
 25)  
 26)  
 27)  
 28) :  
 29)  
 30)

**5.4.**

1)  
 2)  
 3)  
 4)  
 5)

1) : 100%.  
 1 5-10  
 1 (100/n)%, n -  
 2) 5 1 20%.



|    |     |    |      |   |      |
|----|-----|----|------|---|------|
| 3) | 10  | .  | 100% | . | 1    |
| 4) | 10% | 10 | .    | 1 | 10%. |
| 5) | .   | .  | .    | . | .    |

**6. - ( )**

**6.1.**

**6.1.1.**

|     |         |   |          |
|-----|---------|---|----------|
|     | ,       |   | ,        |
| 1.1 | ..      | : | : 2010 , |
| 1.2 | ..      | : | : 2012   |
| 1.3 | .. , .. | : | : 1999   |

**6.1.2.**

|     |                               |   |                |
|-----|-------------------------------|---|----------------|
|     | ,                             |   | ,              |
| 2.1 | ..                            | : | : 2007 ,       |
| 2.2 | ..                            |   | : « » 2010     |
| 2.3 |                               |   | : 2008         |
| 2.4 | .                             |   | : 2007         |
| 2.5 | ..                            | : | : 2009         |
| 2.6 | ..                            | : | : 2007         |
| 2.7 | .. ,                          | : | : 2004         |
| 2.8 | .. ,,<br>.. ,,<br>.. ,,<br>.. | : | : - 2002 .. .. |

**6.1.3.**

|     |       |   |        |
|-----|-------|---|--------|
|     | ,     |   | ,      |
| 3.1 | .. ,, | : | : 2002 |
| 3.2 | .. ,, | : | : 2012 |
| 3.3 | .. ,, | : | : 2010 |
| 3.4 | .. ,, | : | : 2015 |

**6.2. - " "**

|   |             |                            |
|---|-------------|----------------------------|
| 1 | - IPRbooks  | http://www.iprbookshop.ru. |
| 2 |             | www.benran.ru              |
| 3 | eLIBRARY.RU | www.elibrary.ru            |
| 4 | « »         | www.window.edu.ru/windo w/ |

**6.3.**

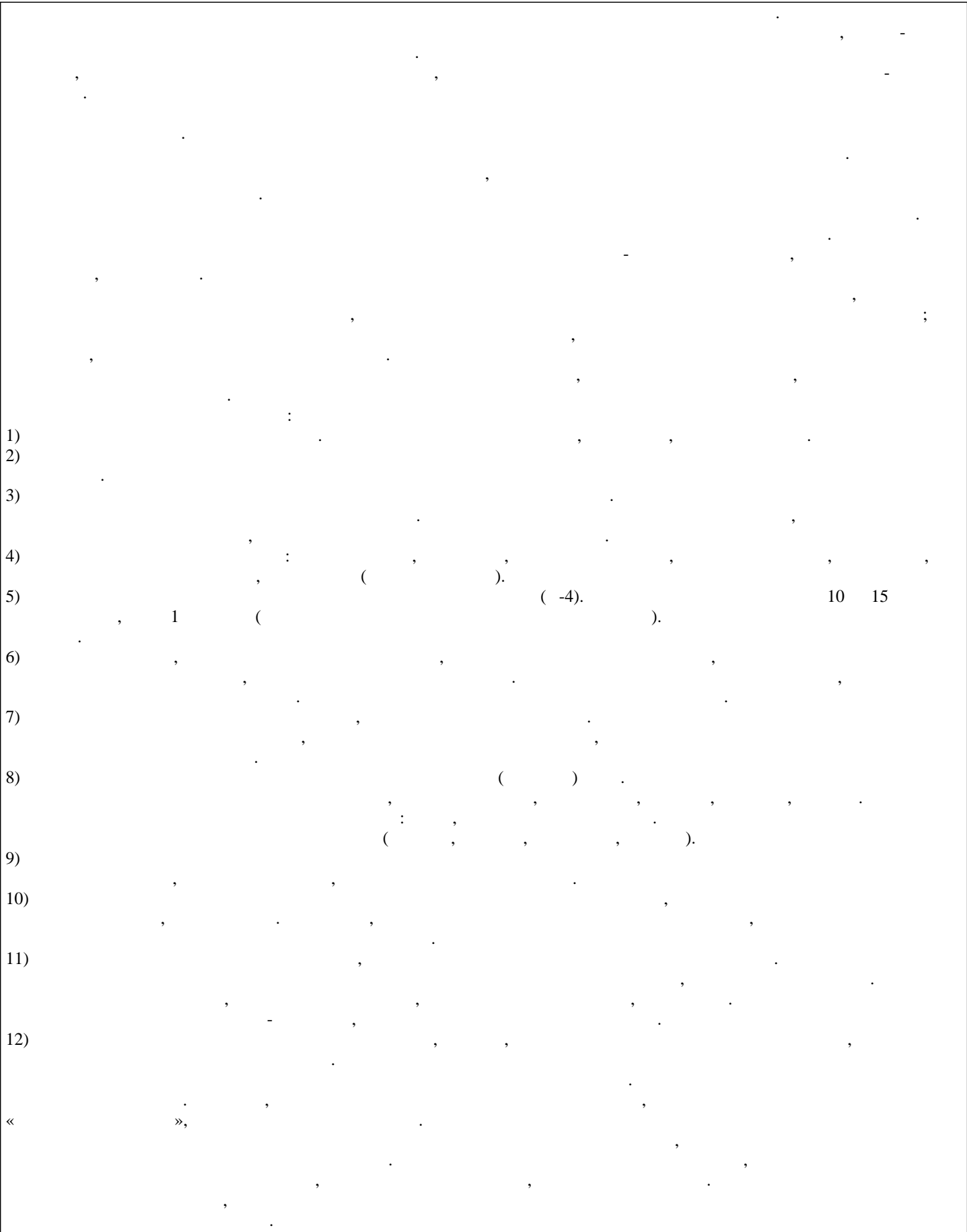
**6.3.1 -**

|         |           |
|---------|-----------|
| 6.3.1.1 | - , .     |
| 6.3.1.2 | - , , , , |

|              |   |             |
|--------------|---|-------------|
| 6.3.1.3      | Microsoft Office: Microsoft Word, Microsoft Excel, Power Point, |             |
| <b>6.3.2</b> |   |             |
| 6.3.2.1      | 1.http://www.iprbookshop.ru.-                                   | IPRbooks    |
| 6.3.2.2      | 2.www.benran.ru -   |             |
| 6.3.2.3      | 3.www.elibrary.ru -   | eLIBRARY.RU |
| 6.3.2.4      | 4.www.window.edu.ru/window/ -                                   | « »         |

|           |    |     |
|-----------|----|-----|
| <b>7.</b> |    | ( ) |
| 7.1       | 50 |     |
| 7.2       |    |     |
| 7.3       |    |     |
| 7.4       |    |     |
| 7.5       |    |     |
| 7.6       |    |     |
| 7.7       |    |     |
| 7.8       |    |     |
| 7.9       |    |     |
| 7.10      |    |     |

|                 |  |     |
|-----------------|--|-----|
| <b>8.</b>       |  | ( ) |
| ( 1)            |  |     |
| 60,             |  |     |
| 4-8             |  |     |
| 8,              |  |     |
| : 1.8, 2.8, 3.8 |  |     |
| 2               |  |     |
| 25              |  |     |



1)

2)

3)

4)

5)

6)

7)

8)

9)

10)

11)

12)

«

»,

10 15

( -4).

( )

( )

( )