

**FACULTY OF PHARMACY****B. Pharmacy I - Year (Supplementary) Examination, October / November 2014****Subject : Anatomy, Physiology and Health Education****Time : 3 Hours****Max. Marks: 70*****Note: Answer all questions. All questions carry equal marks.***

- 1 (a) (i) Discuss the properties and functions of Nervous tissue. (8)  
 (ii) Write a note on action potential. (6)  
**OR**  
 (b) Explain the structure and functions of the following bones with neat diagrams (14)  
 (A) Femur (B) Tarsals (3) Thoracic (D) Axis
- 2 (a) (i) What is a synapse? Define and explain a reflex arc. (8)  
 (ii) Define blood pressure. What are the factors affecting changes in blood pressure. (6)  
**OR**  
 (b) (i) Explain the division of autonomic nervous system. Discuss its functions. (8)  
 (ii) Discuss the anatomy and physiology of heart. (6)
- 3 (a) (i) Discuss the anatomy and physiology of respiration. (8)  
 (ii) Elaborate on the enzymes involved in digestion. (6)  
**OR**  
 (b) (i) Discuss the mechanisms of hormonal secretion. Explain the anatomy and physiology of adrenal gland. (8)  
 (ii) Explain the terms: (6)  
 (A) Vital capacity (B) Respiratory Volume  
 (C) Anoxia (D) Hypoxia
- 4 (a) (i) Discuss the various parts, structure and functions of the kidney and urinary tract. (8)  
 (ii) Discuss the basic anatomy and physiology of skin. (6)  
**OR**  
 (b) (i) Discuss the physiology of urine formation. (8)  
 (ii) Draw a neat labeled diagram of internal structure of eye and highlight the functions of various parts. (6)
- 5 (a) (i) Discuss various methods of family planning. (8)  
 (ii) Write short notes on : (6)  
 (A) Inflammation and repair (B) Neoplasms  
**OR**  
 (b) (i) Write on nutritional disorders associated with water soluble vitamin deficiency. (6)  
 (ii) Explain the terms: (8)  
 (A) Haemorrhage (B) Embolism  
 (C) Infarction (D) Oedema

**FACULTY OF PHARMACY**

**B. Pharmacy I - Year (Supplementary) Examination, October/November 2014**

**Subject: Basic Computer Applications**

**Time: 3 Hours**

**Max. Marks: 70**

***Note: Answer all questions. All questions carry equal marks.***

- 1 (a) Write about evolution of computers.  
(b) List out the commonly used input and output devices of computer. Write about Magnetic tapes and Magnetic discs.  
**OR**  
(c) Explain different types of storage devices for computers.  
(d) What is the importance and features of operating system?
- 2 (a) What are the different types of operators available in C-Language? Explain them.  
**OR**  
(b) Explain the control statements with examples:  
(i) WHILE – DO (ii) FOR (iii) BREAK AND CONTINUE
- 3 (a) Describe about different tools available in MS-office and explain them.  
(b) Discuss about creating, editing and formatting document in MS-Word.  
**OR**  
(c) Explain charts and graphs with MS-Excel data.  
(d) Explain basics and different tools available in MS-Excel.
- 4 (a) Write about the features and different views of MS-Power Point.  
(b) Write notes on :  
(i) Transitions and Animations  
(ii) Slide design  
**OR**  
(c) What is database? Write about different data types available in MS-Access for entering different types of data.  
(d) Explain about:  
(i) Creating Tables (ii) Table relationships
- 5 (a) Explain the following:  
(i) structure and organization of WWW  
(ii) Types of indexing tools and search strategies  
(iii) Internet  
**OR**  
(b) Write the features of SQL. Compare MS-Access and SQL server.  
(c) Give overview of SQL commands.

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**FACULTY OF PHARMACY****B. Pharmacy I - Year (Supplementary) Examination, October / November 2014****Subject: Pharmaceutics – I  
(General & Dispensing Pharmacy)****Time : 3 Hours****Max. Marks: 70*****Note: Answer all questions. All questions carry equal marks.***

- 1 (a) Discuss about the pharmaceutical Education in India. (7)  
 (b) Write about the pharmacopeias. (7)  
**OR**  
 (c) Do the calculations for preparation of 200ml of a 1 in 10000 solution from the 1 in 400 solution of proflavine hemisulphate. (5)  
 (d) Preparation of 600ml of 60% alcohol from 95% alcohol? (5)  
 (c) 40° OP & 70° UP in percentage V/V ? (4)
- 2 (a) Define the following: (4)  
 (i) Suppositories (ii) Elixirs (iii) Poultices (iv) Gargles  
 (b) Define prescription and describe the parts of prescription in details. (10)  
**OR**  
 (c) Write a note on labeling of dispensing products. (6)  
 (d) Discuss about the organoleptic additives used in formulations. (8)
- 3 (a) Discuss about the general methods of preparation, additives used and uses of the following dosage forms. (14)  
 (i) Emulsions (ii) Suspensions (iii) Lotions  
**OR**  
 (b) Distinguish the following: (3+3+3+3+2)  
 (i) Aromatic waters and spirits (ii) Syrups and Elixirs  
 (iii) Suspensions and Emulsions (iv) Lotions and liniments  
 (v) Gargles and throat paints
- 4 (a) Discuss about the different types of suppository bases with their applications. (10)  
 (b) Dispense the following prescription. (4)  
 Rx  
 Phenobarbitone Sodium – 600 mg  
 Ammonium bromide – 8 g  
 Water upto - 100 ml  
 Label : Two 5ml spoonful to be taken at night  
**OR**  
 (c) Discuss the preparation of the following: (9)  
 (i) Effervescent granules (ii) Cold cream (iii) Non staining Iodine ointment  
 (d) Define Jellies. Discuss about the different types of jellies. (5)
- 5 (a) Discuss the procedure of maceration for extraction of drugs. (7)  
 (b) Write about the medicinal gases and their uses. (7)  
**OR**  
 (c) Explain the procedure of Soxhlet extraction. (7)  
 (d) Write the therapeutic uses of radio pharmaceuticals. (7)

10/11/2014 (A.N) o/c

Code No. 8035

**FACULTY OF PHARMACY**

**B. Pharmacy I – Year (Supplementary) Examination, Oct. / Nov. 2014**

**Subject : Mathematics**

**Time : 3 hours**

**Max. Marks : 70**

**Note: Answer all questions. All questions carry equal marks.**

- 1 a) i) If  $x = 1 + \log_a bc$ ,  $y = 1 + \log_b ca$  and  $z = 1 + \log_c ab$ . Prove that  $xyz = xy + yz + zx$ .
- ii) In a triangle ABC, prove that  $\sin^2 A + \sin^2 B - \sin^2 C = 4 \cos A \cos B \sin C$ .

**OR**

- b) i) If  $\tan \alpha = \frac{1}{3}$  and  $\tan \beta = \frac{1}{7}$  then show that  $\tan(2\alpha + \beta) = 1$ .
- ii) If  $a^x = b^y = c^z$  and  $y^2 = z^x$ . Prove that  $\log_b a = \log_c b$ .
- 2 a) i) Find the derivative of  $\cot x$  using first principle.
- ii) Show that the function is not differentiable at 2 where  $f(x) = \begin{cases} x & 0 \leq x \leq 2 \\ 2 & x \geq 2 \end{cases}$

**OR**

- b) i) Find the maximum and minimum values of the polynomial  $f(x) = x^3 - 6x^2 + 9x + 15$ .
- ii) If  $u = \log \frac{x^2 + y^2}{x + y}$  prove that  $x \frac{\partial u}{\partial x} + y \frac{\partial u}{\partial y} = 1$

- 3 a) i) Evaluate  $\int \frac{1}{3 + 5x - 2x^2} dx$
- ii) Evaluate  $\int e^x \sqrt{1 + e^x} dx$

**OR**

- b) i) Evaluate  $\int \frac{1}{4 + 5 \cos x} dx$
- ii)  $\int \frac{3x + 7}{3x^2 + 14x - 6} dx$

- 4 a) i) Show that  $\begin{vmatrix} bc & b+c & 1 \\ ca & c+a & 1 \\ ab & a+b & 1 \end{vmatrix} = (a-b)(b-c)(c-a)$

- ii) Solve the equations  $3x + 4y + 5z = 18$ ,  $2x - y + 8z = 13$  and  $5x - 2y + 7z = 20$  by matrix inversion method.

**OR**

- b) i) Find the rank of the matrix  $A = \begin{bmatrix} 1 & 0 & -4 \\ 2 & -1 & 3 \end{bmatrix}$

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ii) If  $P = \begin{bmatrix} 0 & 1 \\ 2 & 3 \end{bmatrix}$   $Q = \begin{bmatrix} -1 & 2 \\ 4 & 3 \end{bmatrix}$  and  $R = \begin{bmatrix} 2 & -1 \\ 6 & 5 \end{bmatrix}$

Show that  $P(Q + R) = PQ + PR$ .

- 5 a) i) Find the equation of the circle passing through the points (1, 2), (3, -4) and (5, -6).  
ii) Find the equation of the line having intercepts a and b on the axes such that  $a + b = 5$  and  $ab = 6$ .

OR

- b) i) Find the equation of the line passing through the point (2, -3) and having intercepts whose ratio is 3 : 2.  
ii) Find the centre and radius of the circle  $3x^2 + 3y^2 + 6x - 12y - 1 = 0$ .

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Code No. 8036

**FACULTY OF PHARMACY**

**B. Pharmacy I – Year (Supplementary) Examination, Oct. / Nov. 2014**

**Subject: Biology**

**Time: 3 hours**

**Max. Marks: 70**

**Note: Answer all questions. All questions carry equal marks.**

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|---|-------|--|----|
| 1 | a) i) | Describe internal structure of dicot stem with a neat labeled diagram.     | 7  |
|   | ii)   | Explain different phases and significance of Mitosis.                      | 7  |
|   |       | <b>OR</b>  |    |
|   | b) i) | Define inflorescence? Explain different types of racemose in florescence.  | 7  |
|   | ii)   | Draw the structure of a monocotyledonous seeds and label its parts.        | 7  |
| 2 | a) i) | Describe the vegetative and floral characteristics of Rubiaceae.           | 7  |
|   | ii)   | Write an account of economic importance of solanaceae.                     | 7  |
|   |       | <b>OR</b>  |    |
|   | b) i) | Describe the distinguishing characteristics of leguminaceae family.        | 8  |
|   | ii)   | Write characteristics floral formula and floral diagram of Rubiaceae.      | 6  |
| 3 | a)    | Explain the process of respiration taking place in plants.                 | 14 |
|   |       | <b>OR</b>  |    |
|   | b) i) | Write a note on polyploidy.  | 7  |
|   | ii)   | Explain in brief the process of photo synthesis taking place in plants.    | 7  |
| 4 | a) i) | Discuss the histology of Rabbit liver.                                     | 7  |
|   | ii)   | Draw a neat labeled diagram of arterial system of frog.                    | 7  |
|   |       | <b>OR</b>  |    |
|   | b) i) | Discuss the histology of pancreas of Rabbit.                               |    |
|   | ii)   | Draw a neat labeled diagram of respiratory system of frog.                 | 7  |
| 5 | a)    | Describe the life history of housefly and the diseases spread by housefly. | 14 |
|   |       | <b>OR</b>  |    |
|   | b) i) | Give the life history of <i>Trypanosoma</i> .                              | 8  |
|   | ii)   | Give the morphology and life cycle of <i>Ascaris</i> .                     | 6  |

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**FACULTY OF PHARMACY**

**B. Pharmacy I Year (Main) Examination, June 2014**

**Subject: Anatomy, Physiology and Health Education**

**Time: 3 Hours**

**Max.Marks: 70**

**Note: Answer all questions. All questions carry equal marks.**

- 1 (a) i) Discuss the properties and functions of epithelial tissue. (8)  
ii) Write a note on action potential. (6)  
**OR**  
(b) i) Explain the general principles of membrane permeability. (6)  
ii) What are tissues? Write a note on nervous tissue. (8)
- 2 (a) i) What is a reflex arc? Write a note on physiology of nerve impulse. (8)  
ii) Define blood pressure. What are the various factors which govern blood pressure. (6)  
**OR**  
(b) i) Explain the physiology of nerve impulse. (6)  
ii) Draw the internal structure of the heart and explain the blood circulation pathway. (8)
- 3 (a) i) Discuss the physiology of respiration. (8)  
ii) Explain the mechanisms of hormonal secretion. (6)  
**OR**  
(b) i) Explain the terms: (i) vital capacity (ii) respiratory volume (iii) hypoxia. (6)  
ii) Discuss the gross anatomy of alimentary canal. (8)
- 4 (a) i) Discuss the physiology of urine formation. (8)  
ii) Discuss the basic anatomy and physiology of nose. (6)  
**OR**  
(b) i) Draw a neat labelled diagram of kidney. (5)  
ii) Discuss the anatomy and physiology of taste buds and skin. (9)
- 5 (a) i) Discuss the pathological processes of inflammation and repair. (6)  
ii) Explain various methods of family planning. (8)  
**OR**  
(b) i) Discuss the pathological process involved in infarction and embolism. (6)  
ii) Explain the various nutritional disorders associated with vitamin deficiency. (8)

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**FACULTY OF PHARMACY****B. Pharmacy I Year (Main) Examination, June 2014****Subject: Pharmaceutical Inorganic Chemistry****Time: 3 Hours****Max.Marks: 70****Note: Answer all questions. All questions carry equal marks.**

- 1 (a) i) Write general procedure for qualitative tests for cations. (8)  
 ii) Give the principle and procedure involved in limit test for lead. (6)
- OR**
- (b) i) How do you differentiate between group II and group III cations with chemical reactions. (8)  
 ii) Explain principle and procedure involved in the limit test for heavy metals. (6)
- 2 (a) i) Write the importance of electrolytes and how you prepare ORS. (2+3)  
 ii) Give the preparation, assay and uses of following compounds (3+3+3)  
 1) Sodium phosphate 2) Magnesium hydroxide 3) Potassium citrate
- OR**
- (b) i) Write the significance of acid base regulators. (3)  
 ii) Explain role of electrolytes in body fluids. (3)  
 iii) Give the preparation, assay and uses of ammonium chloride and sodium acetate. (4+4)
- 3 (a) i) Write the role of suspending agents in pharmaceutical products with examples. (5)  
 ii) Define absorbents. Give the preparation, assay limit test and uses for aluminum phosphate and magnesium stearate. (1+8)
- OR**
- (b) i) Define desiccants. Give the preparation, assay, limit test and uses of sodium sulphite and ferric ammonium citrate. (1+4+4)  
 ii) Give a note on solvent and vehicle. (5)
- 4.(a) i) Write a brief note on antidotes. (6)  
 ii) Give the preparation, properties, assay test for purity and uses of copper sulphate and ammonium carbonate. (4+4)
- OR**
- (b) i) Explain significances of nitrous oxide. (2)  
 ii) Write the preparation, properties, assay and uses of following compounds. (4+4+4)  
 1) Potassium antimony tartarate 2) Potassium iodide 3) Zinc sulphate.
- 5 (a) i) What are anti-infective agents, give the preparation, assay and uses of hydrogen peroxide and boric acid. (1+4+4)  
 ii) Write a note on silicone polymers. (5)
- OR**
- (b) i) Define astringents with examples. (2)  
 ii) Write the significance of fluorides in dental products. (4)  
 iii) Give the preparation, assay, test for purity and uses of barium sulphate and calcium phosphate. (4+4)

**FACULTY OF PHARMACY****B. Pharmacy I – Year (Main) Examination, June 2014****Subject : Pharmaceutics - I (General and Dispensing Pharmacy)****Time : 3 hours****Max. Marks : 70****Note: Answer all questions. All questions carry equal marks.**

- 1 a) Write about the registration procedure for a pharmacist. 7  
 b) Write a note on pharmacy as career. 7  
**OR**  
 c) If the adult dose of a drug is 500 mg. Calculate the dose of the drug for children of 6 years age. 6  
 d) Write about the method of allegation in with two examples. 8
- 2 a) Define prescription? Write about the parts of prescription with the diagram of a label. 8  
 b) Write a note on containers and closures for different dispensing products. 6  
**OR**  
 c) Define the following dispensing products  
 i) Irrigations ii) Draughts iii) Collodions iv) Poultices 14  
 v) Elixirs vi) Lozenges vii) Liniments
- 3 a) Write the principle and procedure for the preparation of the following : 14  
 i) Simple syrup I.P. ii) Calamine lotion  
 iii) Liquid paraffin emulsion iv) Paracetamol elixir  
**OR**  
 b) Distinguish between the following : 14  
 i) Aromatic waters Vs Spirits ii) Solutions Vs Mixtures  
 iii) Elixirs Vs Syrups iv) Throat paints Vs Gargles
- 4 a) Write about the different bases of ointments with their advantages and limitations? 10  
 b) Identify the type of incompatibility in the following prescription and add a note on rectification? 4  
 Rx  
 Arachil oil - 20 ml  
 Water upto - 100 ml  
 Make a mixture  
**OR**  
 c) Define displacement value? Calculate the displacement value of a drug at 40% in the total of 1 g. (Prepare 6 suppositories each of 1 g containing 40% of drug). 7  
 d) Write about the preparation of the following : 7  
 i) Effervescent granules ii) Cold cream
- 5 a) Discuss about the percolation process for extraction with suitable examples. 10  
 b) Define the following : 4  
 i) Digestion ii) Decoction iii) Tincture iv) Infusion  
**OR**  
 c) Discuss in detail about the diagnostic uses of radio pharmaceuticals. 14

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**FACULTY OF PHARMACY**  
**B. Pharmacy I - Year (Main) Examination, June 2014**

**Subject : Biology**

**Time : 3 hours**

**Max. Marks : 70**

**Note : Answer all questions. All questions carry equal marks.**

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|---|---|---|
| 1 | a) i) Describe the plant cell organelles and mention their functions.                         | 7 |
|   | ii) Describe the internal structure of stem.  | 7 |
|   | <b>OR</b>   |   |
|   | b) i) Describe leaf modifications.  | 6 |
|   | ii) Describe different types of inflorescence.  | 8 |
| 2 | a) i) Describe the morphological and floral characteristics of solanaceae.                    | 8 |
|   | ii) Give the botanical names, medicinally important plant parts of three apocynaceae members. | 6 |
|   | <b>OR</b>   |   |
|   | b) i) Give the classification and medicinal importance of Rubiaceae.                          | 7 |
|   | ii) Describe the umbel and give a list of important medicinal plants of umbelliterae.         | 7 |
| 3 | a) i) Give an account of DNA replication.   | 7 |
|   | ii) Discuss different types polyploidy.   | 7 |
|   | <b>OR</b>   |   |
|   | b) i) What is mutation? Discuss different types of mutation.                                  | 7 |
|   | ii) Describe glycolysis.  | 7 |
| 4 | a) i) Discuss the differences between animal and plant cell.                                  | 7 |
|   | ii) Describe the circulatory system of Frog.  | 7 |
|   | <b>OR</b>   |   |
|   | b) i) Give an account of animal tissues.  | 8 |
|   | ii) Describe the skeletal muscles.  | 6 |
| 5 | a) i) Describe the life history of <u>Plasmodium</u> .  | 7 |
|   | ii) Describe the life cycle of <u>Trypanosoma</u> .   | 7 |
|   | <b>OR</b>   |   |
|   | b) i) Describe the life history of anaphelos mosquito.  | 7 |
|   | ii) Write about the life history of <u>Leishmania</u> .                                       | 7 |

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**FACULTY OF PHARMACY****B. Pharmacy I - Year (Main) Examination, June 2014****Subject : Mathematics****Time : 3 hours****Max. Marks : 70****Note : Answer all questions. All questions carry equal marks.**

1 a) i) Prove that  $2\log\frac{3}{5} + 3\log\frac{5}{7} + 2\log\frac{7}{3} = \log\frac{5}{7}$ . 7

ii) If  $(3.4)^x = (0.034)^y = 10000$  find the value of  $\frac{1}{x} - \frac{1}{y}$ . 7

**OR**

b) i) If  $\tan A = \frac{1}{2}$  and  $\tan B = \frac{1}{3}$  what is the value of  $A + B$ ? 7

ii) If  $\frac{\log 2^a}{4} = \frac{\log 2^b}{6} = \frac{\log 2^c}{3P}$  and  $a^3 b^2 c = 1$  find the value of  $P$ . 7

2 a) i) Find the derivative of  $\sec x$  using first principle. 7

ii) Find the derivative of  $e^{\sqrt{ax+b}}$ . 7

**OR**

b) i) If  $y = ae^x + be^{-x}$  find  $\frac{dy}{dx}$  and  $\frac{d^2y}{dx^2}$ . 7

ii) Find the derivative of  $\sin^{-1} \sqrt{x}$ . 7

3 a) i) Evaluate  $\int \frac{(1 + \log x)^3}{x} dx$  7

ii)  $\int \frac{1}{(2x+3)\sqrt{x+2}}$  7

**OR**

b) i) Evaluate  $\int \frac{1}{5 + 4\cos x} dx$  7

ii) Evaluate  $\int \frac{2x+1}{x^2 + x + 1} dx$  7

4 a) i)  $A = \begin{bmatrix} 2 & 0 \\ 3 & -5 \end{bmatrix}$  show that  $A^2 + 3A - 10I = 0$  7

ii) Show that  $\begin{vmatrix} 1 & a & a^2 \\ 1 & b & b^2 \\ 1 & c & c^2 \end{vmatrix} = (a-b)(b-c)(c-a)$  7

**OR**

- 2 -

- b) i) Solve using Gauss-Jordan method  $x + y + z = 9$ ,  $2x + 5y + 7z = 52$  and  $2x + y - z = 0$ . 7

- ii) Find the rank of the matrix  $\begin{bmatrix} 1 & 0 & -4 \\ 2 & -1 & 3 \end{bmatrix}$ . 7

- 5 a) i) Find the equation of the circle which passes through (6, 5), (4, 1) and whose centre lies on the line  $4x + 3y - 24 = 0$ . 7

- ii) Find the equation of the line passing through (1, -6) and having intercepts whose product is 1. 7

**OR**

- b) i) Show that the following points lie on a line and find its equation (5, 5), (-5, 1), (10, 7). 7

- ii) Find the circle which passes through (1, 2), (3, -4) and (5, -6). 7

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G.PULLA REDDY COLLEGE OF PHARMACY, HYD

**FACULTY OF PHARMACY**  
**B. Pharmacy I Year (Main) Examination, June 2014**

**Subject: Basic Computer Applications**

**Time: 3 Hours**

**Max.Marks: 70**

**Note: Answer all questions. All questions carry equal marks.**

- 1 (a) List out the commonly used input and output devices of computer. Write about output devices.  
(b) Describe the basic structure of a computer. Explain the functions components of computer.
- OR**
- (c) What is operating system? Explain briefly about the importance of operating systems.  
(d) What is virus? How virus will affect the computer and how can we protect computer from viruses?
- 2 (a) Explain the use of following statements with examples  
1) If – Else                      2) While – Do                      3) Break and continue
- OR**
- (b) Explain with examples 1) Arithmetic operators 2) Expressions.  
(c) Explain data input and output statements in C-Language.
- 3 (a) Describe about the formatting the documents in MS-Word.  
(b) Discuss about tables in MS-Word.
- OR**
- (c) Write about different types of charts available in MS-Excel.  
(d) Write about the important features of MS-Excel.
- 4 (a) Write the features of MS-Power point.  
(b) Discuss about 1) custom animation 2) Views in MS-Power point.
- OR**
- (c) How to create database using MS-Access? Explain with example.  
(d) Explain about 1) Import and exporting 2) Sorting and filtering.
- 5 (a) Explain the following:  
1) Search engine    2) HTML    3) E-Mail    4) Internet browsers.
- OR**
- (b) Write about the features of SQL and the commands.  
(c) Write the different types of indexing tools and search strategies.

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