



# **ARMY BURN HALL COLLEGE FOR BOYS**

## **Entry Test – Class 11th**

### **SUBJECT: BIOLOGY**

**Time allowed: 30 Minutes**

**Maximum Marks: 20**

### **INSTRUCTIONS**

- Write your Roll Number only on the top right corner.
- Do not write your name or any other information.
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### **ATTEMPT ALL QUESTIONS**

#### **SECTION–A (Marks 5)**

**Q. 1 Encircle the correct option.**

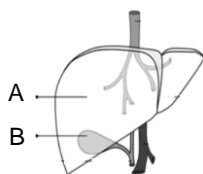
- (1) Emulsification is a process in which fats molecules are broken down into smaller one, by the action of:  
 A. pancreatic juice    B. gastric juice    C. bile juice    D. both A and B
- (2) Aorta supplies blood to all parts of the human body except:  
 A. livers    B. lungs    C. kidneys    D. none of these
- (3) Pick out the liquid that helps to prevent infection when applied on cuts.  
 A. tincture of iodine    B. silver nitrate    C. distilled water    D. all of these
- (4) Bacteria reproduces asexually in unfavourable conditions by:  
 A. budding    B. multiple fission    C. binary fission    D. endospore formation
- (5) Pick out the male hormone:  
 A. testosterone    B. estrogen    C. oxytocin    D. all of these

#### **SECTION–B (Marks 15)**

**Q. 2 Give short answers of the following questions.**

**(5×3 = 15)**

- i. Label part A and B and write down the function of part B.



- ii. A patient visited cardiologist. Doctor diagnosed clogged coronary arteries. Suggest the possible treatment to recover.

iii.



- (a) What process is shown in the above diagram. Define it.
  - (b) Name the agents which facilitate this process.
- iv. Differentiate between diabetes incipidus and diabetes mellitus.
- v. What is single cell protein? What is its significance?



# **ARMY BURN HALL COLLEGE FOR BOYS**

## **Entry Test – Class 11th**

### **SUBJECT: CHEMISTRY**

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Maximum Marks: 20

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### **ATTEMPT ALL QUESTIONS**

#### **SECTION–A (Marks 5)**

#### **Q. 1 Encircle the correct option.**

- (1) Silicon belongs to group IV-A of the periodic table. It has following  $\bar{e}$  in its valence shell.
 

A. 2	B. 3	C. 4	D. 5
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- (2) M shell has following sub-shells:
 

A. 1s	B. 2s 2p	C. 3s 3p 3d	D. 4s 4p 4d 4f
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- (3) The word “But” stands for \_\_\_\_\_ carbon atoms.
 

A. 1	B. 2	C. 3	D. 4
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- (4) “Strato” means:
 

A. turning	B. changing	C. spread out	D. middle
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- (5) What is the  $K_c$  unit of the following reaction?
 
$$N_{2(g)} + O_{2(g)} \rightleftharpoons 2NO_{(g)}$$

A. no unit	B. $\text{mol}.\text{dm}^{-3}$	C. $\text{mol}^{-1}.\text{dm}^{+3}$	D. $\text{mol}^{-2}.\text{dm}^{+6}$
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#### **SECTION–B (Marks 15)**

#### **Q. 2 Attempt all questions. Each question carries three marks.**

**(5×3 = 15)**

- i. Draw all the possible isomers of pentane.
- ii. Define shielding effect. Give its trends in the Modern Periodic Table.
- iii. What is the effect of vapour pressure on boiling point of the liquid?
- iv. Explain the importance of Mesosphere.
- v. Identify the functional group in the following compounds:
 

(a) $CH_3COCH_3$	(b) $CH_3CHO$	(c) $CH_3CH_2COOH$
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# **ARMY BURN HALL COLLEGE FOR BOYS**

## **Entry Test – Class 11th**

### **SUBJECT: PHYSICS**

Time allowed: 30 Minutes

Maximum Marks: 20

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### **ATTEMPT ALL QUESTIONS**

#### **SECTION–A (Marks 5)**

**Q. 1 Encircle the correct option.**

- (1) Uniform velocity with which paratroopers come to ground is called \_\_\_\_ velocity.  
A. horizontal      B. terminal      C. variable      D. orbital
- (2) The work will be zero when angle between force and distance is:  
A. 45      B. 60      C. 90      D. 180
- (3) Critical angle for glass is:  
A. 50°      B. 42°      C. 45°      D. 30°
- (4) Two inputs of NAND gate are A and B. Its output would be 0 when:  
A. A=0, B=1      B. A=1, B=0      C. A=0, B=0      D. A=1, B=1
- (5) When a heavy nucleus splits into two lighter nuclei, the process would:  
A. release nuclear energy      B. absorb nuclear energy  
C. release chemical energy      D. absorb chemical energy

#### **SECTION–B (Marks 15)**

**Q. 2 Attempt all questions. Each question carries three marks. (5×3 = 15)**

- i. How Newton's law of gravitation helps in understanding the motion of satellite?
- ii. A container has 2.5 liters of water at 20° C. How much heat is required to boil the water?
- iii. Why we see the bending of pencil in water?
- iv. A nitrogen nuclide  ${}^7_7\text{N}^{16}$  decays to become an oxygen nuclide by emitting an electron. Show this process with an equation.
- v. Will two separate 50 dB sounds together constitute 100 dB sounds? Explain.



# **ARMY BURN HALL COLLEGE FOR BOYS**

## **Entry Test – Class 11th**

### **SUBJECT: ENGLISH**

**Time allowed: 30 Minutes**

**Maximum Marks: 20**

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### **ATTEMPT ALL QUESTIONS**

#### **SECTION–A (Marks 5)**

**Q. 1 Encircle the correct option.**

- (1) He cut down the trees. The tense is:  
A. Present simple    B. Present perfect    C. Past perfect    D. Future simple
- (2) We managed to have a decent harvest \_\_\_\_ the drought. Choose suitable transitional device from the following:  
A. moreover    B. as a result    C. however    D. despite
- (3) Identify the compound-complex sentence from the sentences given below:  
A. He left in a hurry after he got a phone call but he came back five minutes later.  
B. Aleena likes playing badminton but her brother likes reading books.  
C. He missed the plane because he was late.  
D. I have not met my classmates for a long.
- (4) Which one of the following sentence possesses the Adverb of frequency?  
A. He suddenly turned his car to the right.  
B. My dog likes going for a walk at night.  
C. The singer performed well in the concert.  
D. I usually take a cup of coffee in the morning.
- (5) It is \_\_\_\_ for so many nations to change their form of government so quickly and peacefully. Choose the word with correct spellings to fill in the blank?  
A. unprecedented    B. inprecedented  
C. unprecedanted    D. unprecedented

#### **SECTION–B (Marks 15)**

**Note: Attempt all questions.**

**Q. 2 Change the following paragraph into indirect speech:**

**[4]**

The King said, "Is my son dead?" The messenger said, "No Sir, thank God." The King worriedly said, "Do you mean he is fine?" The messenger replied, "No Sir, he is in great trouble and badly needs your help."

**Q. 3 Change the voice of the following:**

**[3]**

- (a) My father is reciting the Holy Quran.                      (b) He had told me to do it.
- (c) Were new books bought by my friend?

**Q. 4 Translate into English:**

**[3]**

1. ہماری آبادی میں روز بروز اضافہ ہو رہا ہے۔                      2. ڈاکٹر آنے سے پہلے مریض مر چکا تھا۔                      3. سانپ مارڈالا گیا۔

**Q. 5 Write an email to your elder brother telling him about your future plans.**

**[5]**



# **ARMY BURN HALL COLLEGE FOR BOYS**

## **Entry Test – Class 11th**

### **SUBJECT: MATHEMATICS**

**Time allowed: 30 Minutes**

**Maximum Marks: 20**

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#### **ATTEMPT ALL QUESTIONS**

#### **SECTION–A (Marks 5)**

**Q. 1 Encircle the correct option.**

- (1) The distance between the points A(5, 3) and B(– 5, 7) is:  
 A.  $10\sqrt{29}$       B.  $4\sqrt{29}$       C.  $8\sqrt{29}$       D.  $2\sqrt{29}$
- (2) Which one of the following is not a polynomial?  
 A.  $3x + 8$       B.  $x^2 + 2x + \sqrt{2}$       C.  $x^2 + 2x + \sqrt{2}x$       D.  $x^2 + 2x + \sqrt{2}x$
- (3) If  $\alpha, \beta$  are the roots of  $2x^2 - 6x - 4 = 0$ , then what is the value of  $\alpha^2 \beta^3 + \alpha^3 \beta^2$ ?  
 A.  $-12$       B.  $6$       C.  $-6$       D.  $12$
- (4) What is the angle of elevation of sun if 6 m high pole casts a shadow of  $2\sqrt{3}$  m?  
 A.  $30^\circ$       B.  $45^\circ$       C.  $60^\circ$       D.  $90^\circ$
- (5) What is the value of 'p' if 12, p and 3 are in continued proportion?  
 A.  $\pm 4$       B.  $\pm 36$       C.  $\pm 6$       D.  $\pm\sqrt{4}$

#### **SECTION–B (Marks 15)**

**Note: Attempt all questions. Each question carries five marks.**

**(3×5 = 15)**

**Q. 2** Find the values of 'x' and 'y' if  $(1 + i)^3(x + yi) = (4 + 5i)$

**Q. 3** Solve the equation  $5^{1+x} + 5^{1-x} = 26$

**Q. 4** If  $\tan \theta = \frac{4}{3}$  and  $\sin \theta < 0$

- (a) Find the quadrant in which the terminal side of the angle lies?
- (b) Find the values of  $\sec \theta$  and  $\operatorname{cosec} \theta$
- (c) Show that  $1 + \cot^2 \theta = \operatorname{cosec}^2 \theta$
- (d) Show that  $\sec^2 \theta - \tan^2 \theta = 1$