CADET COLLEGE FATEH JANG

Entry Test Sample

Class 1ˢᵗ Year
Time: 40 Min

Paper: English
Marks: 50

Q-1 **Fill in the blanks with correct forms of verb:** **(10)**

i.   I have _____a letter.   (Write)

ii.   I shall _____ to bazaar.   (Go)

iii.   He   _____ up early in the morning.   (Get)

iv.   They are _____on the road.   (Walk)

v.   It is _____.   (Rain)

vi.   It has been _____.   (Rain)

vii.   We are _____ by our Principal.   (Tell)

viii.   She had _____ to Pindi.   (Go)

ix.   You will be _____a letter.   (Write)

x.   What has happened, _____a book?   (Read)

Q-2 **(a) Change the following sentences into indirect speech.** **(05)**

i.   He says, "I am ill".

ii.   I shall say, "They are good students".

iii.   She said, "God is one".

iv.   He said, "Not to go to the sun".

v.   She said, "Honesty is the best policy".

(b) **Change into passive voice.** **(05)**

i.   She will eat an apple.

ii.   I wrote a letter.

iii.   We are playing cricket.

iv.   He has eaten the meal.

v.   They are reading books

Q-3 **Explain and make paraphrase of the following stanza.** **(10)**

Brave men who work while others sleep,

Who dare while others fly, they build a nation's pillars deep,

And lift them to the sky.

OR

Use the following worlds in your own sentences.

Efficient, Opinion, Blessing, Delegate, Memory

Q-4 **Write a comprehensive essay of approximately 150 words on ONE of given topic.** **(10)**

i. My last day at school.   ii. Life in a village.

Q-5 **Translate any five of the following sentences into English.** **(10)**

1ـ وہ خط لکھتا ہے۔   2ـ وہ کھانا کھائے گا   3ـ تندرستی ہزار نعمت ہے۔   4ـ صبح سے بارش ہو رہی ہے۔ 5ـ جانے دو۔

6ـ گاڑی پہنچ چکی تھی۔   7ـ وہ میچ کھیل چکے ہیں۔ 8ـ وہ فٹ بال کھیل رہا ہے۔9ـ وہ لاہور جائے گی۔   10ـ گھر میں کوئی نہیں ہے۔

CADET COLLEGE FATEH JANG
Entry Test Sample
Class 1st Year

Time: 40 Min

Paper: Chemistry

Marks: 50

Q-1   Select the correct option.   (15)

(i)   The unit of equilibrium Constant is?

(a) Mol dm^{-3} (b) Mol dm^{3} (c) Mol dm^{-2} (d) None of these

(ii)   Which one is the strongest Acid?

(a) CH_3COOH (b) H_2SO_4 (c) HCOOH

(iii)   Acid have _____ taste?

(a) Sour   (b) Bitter   (c) Sweet   (d) None of these

(iv)   Which acid are used for the preservation of food?

(a) Acetic acid   (b) Ascorbic acid   (c) tartaric acid

(v)   Which one is the noble gas in the periodic table?

(a) Fluorine   (b) chlorine   (c) bromine   (d) Neon

(vi)   Which one is the formal of Chloroform?

(a) CH_3Cl (b) CH_2Cl_2 (c) $CHCl_3$ (d) CH_3

(vii)   Which one of the following is the non metal?

(a) Glass   (b) Wood   (c) Nitrogen   (d) Hydrogen

(viii)   Which one is the father of chemistry?

(a) Jabir-bin-Hayan   (b) Arustu   (c) Ibne-Seena   (d) Marie Currie

(ix)   Which one Carry Positive Charge?

(a) Electron   (b) Proton   (c) Neutron   (d) Anion

(x)   Which element has highest electro negativity?

(a) Na   (b) Mg   (c) C   (d) F

(xi)   The study of composition and structure of matter is:

(a) Chemistry   (b) Physics   (c) Biology   (d) Math

(xii)   The study of Hydrocarbon and their derivatives:

(a) Inorganic chemistry   (b) Organic   (c) Physical   (d) None of these

(xiii)   Hydrocarbons are made up of:

(a) C+M   (b) C+O   (c) C+H   (d) N+O

(xiv)   Avogadro's number is represented by:

(a) Amu   (b) N_A (c) K_c (d) K_f

(xv)   Elements are represented by:

(a) Chemical formula   (b) Symbol   (c) Molecular formula   (d) Empirical formula

Q-2   Write down the chemical formula of the following:-   (10)

(a)   Washing Soda   (b)   Table Salt   (c) Methane

(d)   Calcium Carbonate   (e) Hydrogen Iodide

Q-3   Attempt the following short questions: (10)

a)   Define Organic chemistry.

b)   Write down properties of Acids?

c)   Define Reversible reaction with example?

d)   Define Acid rain.

e)   What is the difference between Alkane and Alkene?

Q-4   Answer any three of the following: (5 x3 = 15)

a)   What is Soft and hard water?

b)   Define Ionization energy and write its trends?

c)   What is isotope? Write the isotope of hydrogen?

d)   Define Arrhenius Acid and Base with example?

CADET COLLEGE FATEH JANG

Entry Test Sample

Class 1st Year   **Paper: Physics**

Time: 40 Min   **Marks: 50**

Q-1 Write the correct one.   **(10 x 1 = 10)**

i. The quantity of motion of a body is called_____
    (a) Momentum   (b) work   (c) velocity   (d) inertia

ii. Distance covered in unit time is called_____
    (a) Speed   (b) velocity   (c) acceleration   (d) displacement

iii. The ratio between perpendicular and base is_____
    (a) $\sin\theta$ (b) $\cos\theta$ (c) $\tan\theta$ (d) $\text{Cosec}\theta$

iv. The energy possessed by a body due to its motion is called_____
    (a) P.E   (b) K.E   (c) chemical energy   (d) gravitational energy

v. The unit of torque is_____
    (a) Joule   (b) Watt   (c) Newton   (d) Pascal

vi. A wave move on a slinky with frequency of 4Hz and wavelength of 0.4m. What is the speed of wave?
    (a) $2.6ms^{-1}$ (b) $1.6ms^{-1}$ (c) $3.6ms^{-1}$ (d) $1.2ms^{-1}$

vii. What is the power rating of a lamp connected to a 12V source when it carries 2.5 A.
    (a) 4.8 w   (b) 60 w   (c) 30 w   (d) 14.5 w

viii. Least count of Vernier caliper is_____?
    (a) 0.1cm   (b) 0.01mm   (c) 1cm   (d) 0.01cm

ix. A car is moving at the speed of 60 Kmh^{-1}. Its speed express in ms^{-1} is:
    (a) $17ms^{-1}$ (b) $20ms^{-1}$ (c) $16.6ms^{-1}$ (d) $15.6ms^{-1}$

x. The S.I unit of stress is_____:
    (a) Nm   (b) Nm^{-2} (c) Nm^{-1} (d) N

Q-2 Write short answers to the following questions: **(10 x 2 = 20)**

i) Define Translatory motion? Write its types.

ii) Differentiate between mass and weight?

iii) Define force. Write its unit.

iv) Write down the equivalent resistance of parallel and series combination of resistor?

v) Define head to tail rule for addition of vector?

vi) Differentiate between concave and convex lens.

vii) What is capacitance of capacitor? Write its unit.

viii) Define laws of refraction of light?

ix) Define nuclear fission reaction?

x) Define Electromagnetic waves with examples?

Q-3 Write the answers of any four of the following questions.   **(4 x 5 = 20)**

i. Prove that graphically $2as = V_f^2 - V_i^2$

ii. Prove that mass attached to a spring executes simple harmonic motion?

iii. A current of 6 mA is flowing through a wire for 2 minute. What is the charge flowing through the wire.

iv. Define and Prove F=ma.

v. Explain CRO in detail.

vi. What is electroscope? How can you detect the presence of charge by using electroscope?

CADET COLLEGE FATEH JANG

Entry Test Sample

Class 1st Year　　　　　　　　　　　　　　　　　　　　　**Paper: Math**
Time: 40 Min　　　**(For Pre-Engineering & ICS)**　　　**Marks: 50**

Q-1　Choose the correct answer.　　　　　　　　　　　　　　　　(10)

(i) The method of solving quadratic equation is.

　　a. 1　　　　　　b. 2　　　　　　c. 3　　　　　　d. 4

(ii) If a:b the first term 'a' is called.

　　a. antecedent　　b. consequent c. Both a & b　　d. None

(iii) Median of 59, 68, 81, 78, 51=

　　a. 59　　　　　b. 68　　　　　c. 78　　　　　d. 51

(iv) A circle touching three sides of a triangle is called.

　　a. In Circle　　　b. Locus　　　c. Arc　　　　d. Circle

(v) If 3: 5x: : 2:4 then x=

　　a. $^6/_5$　　　　b. $^3/_5$　　　　c. $^4/_5$　　　　d. $^4/_5$

Note:　Solve any four questions from the following.　　　　　**(4 x10=40)**

Q-2　a)　$2-x^2=7x$ solve by quadratic formula.

　　b)　$x^{2/3} + 54 = 15x^{1/3}$ solve the equation.

Q-3　a)　$(2x-\frac{1}{2})^2 = 9/4$ solve.

　　b)　*Simplify* $\left[\frac{x^{-2}\ y^{-1}\ z^{-4}}{x^4\ y^{-3}\ z^0}\right]^{-3}$

Q-4　a)　Perform the indicated operation and simplify $\frac{15}{2x-3y} - \frac{4}{3y-2x}$

　　b)　Factorize x^3-y^3-x+y

Q.-5　Find the value of a+b+c when $a^2 +b^2+ c^2 = 14$ and $ab +bc+ ca=15$.

Q.-6　a) Find the solution set of equation and check.　$2\sqrt{y} - 3 = 1$
b)　A = {6,7,8} B={7,8,9} C={7,8,11,12} find A∪(B ∪ C)= (A∪B) ∪ C

CADET COLLEGE FATEH JANG

Entry Test Sample

Class 1st Year		Paper: Biology
Time: 40 Min	(For Pre-Medical)	Marks: 50

Q-1   Choose the correct option.   (20)

(i)   Tissues are organized to form?
(a) Organ   (b) Organ system   (c) Both

(ii)   The phenomena in which two different generations alternate each other is called?
(a) Alternation of generation   (b) Generation   (c) None

(iii)   The study of fungi is called?
(a) Mycology   (b) Paraistology   (c) Both

(iv)   The process in which diploid chromosomes number is reduced to haploid is called?
(a) Meiosis   (b) Mitosis   (c) None

(v)   The tube between Kidney and Urinary bladder is called:
(a) Urethra   (b) Renal Tubule   (c) Ureter

(vi)   Which one of the following is Abiotic?
(a) Producer   (b) Herbivores   (c) Oxygen

(vii)   The weight of human kidney is:
(a) 125gm   (b) 120gm   (c) 130gm

(viii) James Watson and Francis Cick proposed the structure of DNA in:
(a) 1963   (b) 1933   (c) 1953

(ix)   The flow of molecules from higher concentration to lower concentration?
(a) Diffusion   (b) Effusion   (c) Both

(x)   The study of animal is called?
(a) Zoology   (b) Botany   (c) Both

(xi)   Most of the Gaseous in a leaf occurs through?
(a) Stomata   (b) General Surface   (c) Lenticels

(xii)   The core temperature of human body remains at about:
(a) 38^0C (b) 35^0C (c) 37^0C

(xiii) Which is responsible for puberty and voice pitch lowering in male?
(a) Estrogen   (b) Testosterone   (c) Progesterone

(xiv)   These are the unit of inheritance?
(a) Alleles   (b) Phenotype   (c) Genotype

(xv)   The type of symbiotic association in which one partner get benefits while other is not benefited nor harmed, is called:
(a) Mutualism   (b) Parasitism   (c) Commensalism

(xvi)   Dengue virus attacks on?
(a) RBCs   (b) WBCs   (c) Platelets

(xvii) Bio is a?
(a) Latin word   (b) Greek word   (c) None

(xviii) Location of gene on chromosome is called?
(a) Locus   (b) Docus   (c) None

(xix)   Conversion of nitrogen gas into nitrate is called?
(a) Nitrogen fixation   (b) oxygen fixation   (c) None

(xx)   The microscopic study of tissues is called:
(a) Cell Biology   (b) Histology   (c) Embryology

Q-2   Attempt any five of the following.   (2×5=10)

i.   Write the names of nitrogenous bases present in DNA and RNA?
ii.   Discuss Biotechnology? Give example.
iii.   Define Homeostasis?
iv.   Write the part of brain?
v.   Differentiate between Cartilage and Bone with example?
vi.   Discuss self pollination?
vii.   What is insulin? Give its function in human body?

Q-3   Answer any two of the following: (10+10 = 20)

1)   Discuss the Watson and Crick model of DNA in detail?
2)   Discuss any five branches of biology?
3)   Draw the labeled diagram of heart?
4)   Write a detailed note on global warming?

CADET COLLEGE FATEH JANG

<u>**Entry Test Sample**</u>

Class 1ˢᵗ Year   **Paper: Computer Science**
Time: 40 Min   **(For ICS)**   **Marks: 50**

Q-1 Choose the correct option.   **(10)**

i. Which of the following statement is used to find the largest value from an array?

    (a) INPUT   (b) READ….DATA   (c) ON-ERROR-GOTO (d) None of these

ii. Dimension statement uses the keyword_____

    (a) DMS   (b) DS   (c) DIM   (d) DM

iii. Which of the following is not valid subscript?

    (a) NUM (100)   (b) A (2)   (c) B (4)   (d) A (-2)

iv. Which of the following is not a logical operation?

    (a) AND   (b) OR   (c) NEITHER   (d) NOT

v. FOR…….NEXT is used to implement

    (a) Iteration   (b) Selection   (c) Sequence   (d) All of these

vi. The technique "divided and conquer" is used to solve:

    (a) Simple Problems (b) Complex Problems   (c) Large Problems   (d) Complex and Large Problems

vii. All of the following in GW-BASIC are Keyword except:

    (a) IF   (b) THEN   (c) ELSE   (d) MARKS

viii. Which of the following Basic command is used to remove file from the disk?

    (a) KILL   (b) DELETE   (c) CLS   (d) END

ix. Which of the following BASIC statement is used to define a function?

    (a) DEF   (b) DEF FN   (c) DEF FUN   (d) FU DEF

x. The circle statement can also be used to draw:

    (a) Line   (b) Box   (c) Ellipse   (d) Pset

Q-2 Attempt any twelve of the following.   **(12x2=24)**

1. What is computer? Write name of any two types of computer.   2. Define flow chart.

3. Write down the use of comma (,) and semi colon (;) in PRINT statement.

4. Differentiate between CLEAR and CLS command.

5. What is ON – GOTO statement?   6. What is meant by DIM statement?

7. Differentiate between 1-D and 2-D array.   8. What is meant by transfer of control?

9. What are Keywords? Give some examples.   10. What is Built-in function? Give example.

11. What are sub-routines?   12. What is IF….THEN statement?

13. What is meant by sequential file?   14. Define Graphics?

15. What is word processing?

Q-3 Answer any two of the following: **(8 + 8 = 16)**

i. Write rules for naming variables in BASIC.

ii. Define debugging? Write types of errors in detail?

iii. Define algorithm? Describe strategy for developing algorithm?

iv. What are operators? Explain Arithmetic operators in detail?