

FRONTIER SCOUTS
CADET COLLEGE WARSAK PESHAWAR
ENTRY TEST FOR CLASS – XI (2025)
PAPER: ENGLISH/URDU

Time Allowed: 50 mins

Total Marks: 50

Name: _____

Roll No: _____

اُردو

س1: طلباء کے لیے لائبریری کی اہمیت کے عنوان پر ایک مضمون تحریر کریں۔ (15)

س2: والدہ کی خدمت میں اپنی تعلیمی سرگرمیوں پر مشتمل خط تحریر کریں۔ (10)

ENGLISH

Q3; Write a comprehensive essay at anyone of the following given topics. (15)

- i. My Aim in Life?
- ii. The Impact of Technology on Society.
- iii. The Person I Admire.

Q4; Write a letter to your friend congratulating him on his success in exams. (10)

FRONTIER SCOUTS
CADET COLLEGE WARSAK PESHAWAR
ENTRY TEST FOR CLASS – XI (2025)
PAPER: BIOLOGY

Name: _____

FIC: _____

Time Allowed: 30 mins

Total Marks: 50

Roll No: _____

FIC: _____

Q-I; Fill the correct answer from the following.

1. Which pigment in red blood cells carries oxygen?
☐ Chlorophyll ☐ Hemoglobin ☐ Myoglobin ☐ Melanin
2. In plants, gaseous exchange occurs through:
☐ Lenticels ☐ Stomata ☐ Cuticle ☐ Both A and B
3. Which structure prevents food from entering the trachea?
☐ Epiglottis ☐ Larynx ☐ Pharynx ☐ Diaphragm
4. Homeostasis refers to:
☐ Maintenance of external environment ☐ Maintenance of internal environment
☐ Movement of body parts ☐ Growth of organisms
5. Which organ is primarily responsible for osmoregulation in humans?
☐ Liver ☐ Heart ☐ Kidney ☐ Spleen
6. The functional unit of the kidney is:
☐ Neuron ☐ Nephron ☐ Alveolus ☐ Glomerulus
7. The basic unit of the nervous system is:
☐ Nephron ☐ Neuron ☐ Axon ☐ Dendrite
8. Which gland is known as the master gland?
☐ Thyroid ☐ Adrenal ☐ Pituitary ☐ Pancreas
9. Reflex actions are controlled by:
☐ Brain ☐ Spinal cord ☐ Cerebrum ☐ Medulla
10. The human skeleton is divided into axial and:
☐ Peripheral skeleton ☐ Appendicular skeleton
☐ Central skeleton ☐ External skeleton
11. Osteoporosis is a disease related to:
☐ Muscles ☐ Joints ☐ Bones ☐ Ligaments
12. Which process results in the formation of gametes?
☐ Mitosis ☐ Meiosis ☐ Fertilization ☐ Budding
13. In humans, fertilization occurs in the:
☐ Uterus ☐ Ovary ☐ Fallopian tube ☐ Vagina
14. The physical expression of a gene is called:
☐ Genotype ☐ Phenotype ☐ Allele ☐ Trait
15. Who is known as the father of genetics?
☐ Darwin ☐ Mendel ☐ Watson ☐ Crick
16. In a monohybrid cross, the F₂ generation shows a phenotypic ratio of:
☐ 1:1 ☐ 3:1 ☐ 9:3:3:1 ☐ 1:2:1
17. DNA is composed of units called:
☐ Amino acids ☐ Nucleotides ☐ Fatty acids ☐ Monosaccharides
18. Deforestation leads to:
☐ Soil erosion ☐ Increased rainfall ☐ Decreased carbon dioxide ☐ Ozone formation
19. The technique of producing identical organisms is called:
☐ Cloning ☐ Mutation ☐ Hybridization ☐ Fermentation
20. Which enzyme is used to cut DNA at specific sites?
☐ DNA polymerase ☐ Ligase ☐ Restriction enzyme ☐ Helicase
21. The process of introducing foreign DNA into a cell is called:
☐ Transcription ☐ Translation ☐ Transformation ☐ Replication
22. Drugs that relieve pain are called:
☐ Antibiotics ☐ Analgesics ☐ Antiseptics ☐ Antipyretics
23. Which of the following is an antibiotic?
☐ Paracetamol ☐ Aspirin ☐ Penicillin ☐ Ibuprofen
24. Vaccines are used to:
☐ Cure diseases ☐ Relieve pain ☐ Prevent diseases ☐ Reduce inflammation
25. Overuse of antibiotics can lead to:
☐ Increased immunity ☐ Antibiotic resistance
☐ Enhanced digestion ☐ Improved metabolism

FRONTIER SCOUTS
CADET COLLEGE WARSAK PESHAWAR
ENTRY TEST FOR CLASS – XI (2025)
PAPER: CHEMISTRY

Name: _____

FIC: _____

Time Allowed: 30 mins

Total Marks: 50

Roll No: _____

FIC: _____

Q-I; Fill the correct answer from the following.

1. Burning of wood is an example of.
☐ Physical change ☐ Reversible change ☐ Chemical change ☐ Temporary change
2. What happens when more solute is added to a saturated solution at constant temperature?
☐ It dissolves completely ☐ Temperature increases
☐ It settles at the bottom ☐ The solution become unsaturated
3. Which factor increases the solubility of most solid solute in water.
☐ A decreasing temperature ☐ Increasing temperature
☐ Increasing pressure ☐ Stirring slowly
4. What is the main reason that electron revolve around the nucleus and do not fall into it.
☐ Because of their charge ☐ Due to gravitational pull
☐ Because of centripetal force and energy level ☐ Due to nucleus being solid
5. Which of the following best defines a compound?
☐ A substance made of different atoms not chemically combined
☐ A mixture of elements
☐ A pure substance formed by chemical combination of element in fixed ratio by mass
☐ A substance that can be separated physically
6. Which branch of chemistry deals with the study of all the elements and their compounds except of carbon containing compounds.
☐ Organic chemistry ☐ Inorganic chemistry ☐ Physical chemistry ☐ Biochemistry
7. What is the oxidation number of Mn in MnO_4^{-1} .
☐ 4 ☐ 7 ☐ 6 ☐ 8
8. Moving from left to right across a period the atomic size generally.
☐ Increases ☐ Decreases ☐ Remains the same ☐ Double
9. Which group of periodic table is called halogen.
☐ VI A ☐ V A ☐ VII A ☐ VIII A
10. Why atoms form chemical bond?
☐ To increase their mass ☐ To gain protons
☐ To become unstable ☐ To attain stable electronic configuration
11. Which of the following is a molecule formed by a covalent bond?
☐ NaCl ☐ CaO ☐ CCl₄ ☐ MgCl₂
12. Which one of the following is a homogenous mixture.
☐ Sand in water ☐ Oil in water ☐ Salt dissolved in water ☐ Iron & sulphur
13. Which of the following describes an element?
☐ Can be broken down into simple substances ☐ Made of identical atoms
☐ Made by mixing two compounds ☐ Always found is a liquid
14. Which of the following is weak acid.
☐ HF ☐ H₂SO₄ ☐ HCl ☐ HNO₃
15. The reaction $2SO_2 + O_2 \rightleftharpoons 2SO_3$ is.
☐ Reversible ☐ Irreversible ☐ Endothermic ☐ Exothermic
16. The process of converting vegetable oil into ghee is called.
☐ Fermentation ☐ Polymerization ☐ Saponification ☐ Hydrogenation
17. Which of the following is a saturated hydrocarbon.
☐ Ethane ☐ Ethene ☐ Ethyne ☐ Propene
18. The main source of energy for the body is.
☐ Proteins ☐ Fats ☐ Vitamins ☐ Carbohydrates
19. Which gas is the major contributor to acid rain?
☐ O₂ ☐ CO₂ ☐ SO₂ ☐ H₂
20. Which of the following is used as a raw material for urea production?
☐ Ammonia and carbon dioxide ☐ Sulphure and oxygen
☐ Nitrogen and water ☐ Ammonia and nitric acid
21. Which of the following is used for removing temporary hardness of water.
☐ Filtration ☐ Boiling ☐ Chlorination ☐ Distillation
22. NH₄Cl is a salt.
☐ Acidic ☐ Basic ☐ Neutral ☐ Amphoteric
23. Which metal is most reactive among the following.
☐ Al ☐ Cu ☐ Na ☐ Ag
24. Which one is called liquid gold.
☐ Petroleum ☐ Coal ☐ Natural gas ☐ Water
25. The most widely used chemical in industries is.
☐ Ammonia ☐ Sulphuric acid ☐ Sodium chlorid acid ☐ Nitric acid

FRONTIER SCOUTS
CADET COLLEGE WARSAK PESHAWAR
ENTRY TEST FOR CLASS – XI (2025)
PAPER: COMPUTER SCIENCE

FIC: _____

Name: _____

Time Allowed: 30 mins

Roll No: _____

Total Marks: 50

FIC: _____

Q-I; Choose correct answer from the following.

1. How many tabs are there in word 2016 window?
☐ 7 ☐ 8 ☐ 9 ☐ 10
2. Analog computers are used to represent which type of data.
☐ Fixed ☐ Continuous ☐ Block-by-block ☐ none of these
3. Who was the first computer programmer?
☐ Blaise Pascal ☐ Vint Cerf ☐ ada lovelace ☐ Ricard Braithwaite
4. Using a solution that solved a similar problem is called.
☐ Abstraction ☐ Analogy ☐ Brainstorming ☐ none of these
5. Compact disk diameter is how many inches.
☐ 4.70 ☐ 4.80 ☐ 4.75 ☐ 4.85
6. Who invented IC.
☐ Ian Issac ☐ jack kilby ☐ Graham bell ☐ none of these
7. In which year mouse was introduced by douglas engelbart.
☐ 1960 ☐ 1963 ☐ 1966 ☐ 1969
8. Workbook is the excel file that stores which information.
☐ Secret information ☐ Private information ☐ User information ☐ None of these
9. Entry control loop is called?
☐ For loop ☐ While loop ☐ Nested loop ☐ Do while loop
10. Step by step writing of program is called?
☐ Algorithm ☐ pseudocode ☐ flowchart ☐ basic language
11. Which statement is used to move the control to the start of loop body?
☐ Continue ☐ Break ☐ While ☐ For
12. AND gate is used for logical.
☐ Addition ☐ Multiplication ☐ Inverse ☐ none of these
13. K-MAP was developed by Maurice karnaugh in which year.
☐ 1950 ☐ 1951 ☐ 1953 ☐ 1955
14. Which language is used for creating web pages?
☐ C language ☐ Java ☐ HTML ☐ All of these
15. A website is the collection of related web pages hosted on the.
☐ Search engine ☐ web server ☐ Internet ☐ All of these
16. HTML stands for?
☐ Hypertext makeup language ☐ Hypertext made-up language
☐ Hypertext markup language ☐ none of these
17. URL stands for.
☐ Uniform recourse locator ☐ Uniform reserve locator
☐ Unique recourse locator ☐ none of these
18. A search engine is a website that allows people to find information on
☐ Web server ☐ Website ☐ www ☐ none of these
19. HTML tag is
☐ Command ☐ Header file ☐ Body of program ☐ All of these.
20. Printf is a _____ in C programming language:
☐ Keyword ☐ library ☐ function ☐ none of them
21. Which escape sequence is used to print the output on multiple lines?
☐ \c ☐ \t ☐ \n ☐ \r
22. Which of the following is a type of operator?
☐ Assignment operator ☐ Arithmetic operators
☐ Logical operators ☐ All of these
23. Which statement is used to execute one set of instructions if a particular condition is true and another set of instructions if the condition is false?
☐ if ☐ if else ☐ else ☐ loop
24. In If statement, what happens if condition is false?
☐ Program crashes ☐ index out of bound error
☐ Further code executes ☐ compiler asks to change condition
25. In C language every statement is terminated by.
☐ Full stop ☐ Double quotes ☐ Semicolon ☐ Comma

FRONTIER SCOUTS
CADET COLLEGE WARSAK PESHAWAR
ENTRY TEST FOR CLASS – XI (2025)
PAPER: MATHS

FIC: _____

Name: _____

Time Allowed: 30 mins

Roll No: _____

Total Marks: 50

FIC: _____

Q-I; Fill the correct answer from the following.

1. The zeros of the polynomial $x^2 - 9x - 10$ are.
☐ - 1 & - 10 ☐ 1 & 10 ☐ - 1 & 10 ☐ 1 & - 10
2. The L.C.M of $x^2 - 16$ and $(x + 4)^2$.
☐ $x + 4$ ☐ $x - 4$ ☐ $(x + 4)(x - 4)$ ☐ $(x + 4)^2(x - 4)$
3. A pair of values satisfying the equation $2x + y = 10$ is.
☐ (4, 3) ☐ (3, 4) ☐ (3, - 4) ☐ (4, - 3)
4. $(4i - 9)(4i) = \dots\dots\dots$
☐ $- 16 - 36i$ ☐ $- 16 + 36i$ ☐ $16 + 46i$ ☐ $16 - 36i$
5. $\text{Log}_7 \frac{1}{\sqrt{7}} = ?$
☐ -1 ☐ $-\frac{1}{2}$ ☐ $\frac{1}{2}$ ☐ 2
6. $(a + b)^2 - (a - b)^2 =$.
☐ $4ab$ ☐ $2(a^2 + b^2)$ ☐ $a^2 - 4ab + 2b^2$ ☐ None
7. If $z = 5 - 6i$ the conjugate of Z is.
☐ $5 + 6i$ ☐ $- 5 + 6i$ ☐ $- 5 - 6i$ ☐ $5 - 6i$
8. The solution set of $\sqrt{7x+2} - 3 = 2$ is.
☐ $\left\{\frac{23}{7}\right\}$ ☐ $\left\{\frac{-23}{7}\right\}$ ☐ {2} ☐ { }
9. Distance between points A(-5, 1) and B(3,1) is _____.
☐ 1 ☐ - 1 ☐ - 8 ☐ 8
10. Factors of $x^2 + 2x - 24$ are.
☐ $(x + 4)(x - 6)$ ☐ $(x - 4)(x - 6)$ ☐ $(x + 3)(x - 8)$ ☐ None
11. Solution of $12t^2 = t + 1$ is.
☐ 3,4 ☐ $\frac{-1}{3}, \frac{-1}{4}$ ☐ $\frac{1}{3}, \frac{-1}{4}$ ☐ none
12. If $x^2 - \frac{1}{9} = 0$ then the solution set is.
☐ $\frac{1}{3}$ ☐ $\frac{-1}{3}$ ☐ ± 3 ☐ $\pm \frac{1}{3}$
13. The discriminant of $x^2 - x - 1 = 0$ is.
☐ $\sqrt{5}$ ☐ $\pm\sqrt{5}$ ☐ ± 5 ☐ 5
14. $W^{99} =$ _____.
☐ 1 ☐ zero ☐ W ☐ W^2
15. If α, β are roots of $3x^2 - 5x - 2 = 0$ then product of roots is.
☐ $\frac{2}{3}$ ☐ $\frac{-2}{3}$ ☐ $\frac{3}{2}$ ☐ $\frac{-3}{2}$
16. In $(2x+1) = A(x-1) + B(x-2)$ the value of A is.
☐ 1 ☐ 5 ☐ 3 ☐ 0
17. The reciprocal of $\cos\theta$ is.
☐ $\sec\theta$ ☐ $\tan\theta$ ☐ $\text{cosec}\theta$ ☐ $\sin\theta$
18. Median of 12, 15, 30, 20, is _____.
☐ 16 ☐ 17 ☐ 30 ☐ 17.5
19. If $A = \{a,b\}$ $B = \{1,2\}$ then number of binary relations from A to B is.
☐ 4 ☐ 16 ☐ 8 ☐ 12
20. $\frac{\pi}{4}$ radians = _____.
☐ 60^0 ☐ 30^0 ☐ 45^0 ☐ 90^0
21. $1 + \tan^2\theta =$ _____.
☐ 1 ☐ $\text{cosec}^2\theta$ ☐ $\sec^2\theta$ ☐ $\cos^2\theta$
22. Nature of roots of $4x^2 + x + 1 = 0$.
☐ real ☐ equal ☐ imaginary ☐ none
23. A chord is 5cm from the centre of a circle of radius 13cm. The length of chord is.
☐ 6cm ☐ 12cm ☐ 24cm ☐ 30cm
24. Factors of $x^2 - x - 2$ are.
☐ $(x+1)(x+2)$ ☐ $(x-1)(x-2)$ ☐ $(x+1)(x-2)$ ☐ none
25. $\sqrt{75} =$ _____.
☐ $3\sqrt{5}$ ☐ $5\sqrt{3}$ ☐ $\sqrt{15 \times 3}$ ☐ none

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CADET COLLEGE WARSAK PESHAWAR
ENTRY TEST FOR CLASS – XI (2025)
PAPER: PHYSICS

FIC: _____

Name: _____

Time Allowed: 30 mins

Roll No: _____

Total Marks: 50

FIC: _____

Note: Choose the correct option and shade the circle with blue or black ball point.

1. Which of the following is a derived quantity?
☐ Mass ☐ Time ☐ Force ☐ Length
2. The area under the velocity-time graph represents:
☐ Acceleration ☐ Distance ☐ Speed ☐ Force
3. If a body moves with constant velocity, its acceleration is:
☐ Zero ☐ Increasing ☐ Decreasing ☐ Infinite
4. The time taken for one complete oscillation is called:
☐ Frequency ☐ Time Period ☐ Wavelength ☐ Amplitude
5. The SI unit of momentum is:
☐ kg m/s^2 ☐ kg m/s ☐ kg/m^2 ☐ N
6. The force that keeps planets in orbit around the sun is:
☐ Electromagnetic force ☐ Frictional force
☐ Gravitational force ☐ Nuclear force
7. The pressure exerted by a liquid depends on:
☐ The shape of the container ☐ The density of the liquid
☐ The volume of the liquid ☐ The mass of the liquid
8. The unit of frequency is:
☐ hertz ☐ joule ☐ newton ☐ pascal
9. A device used to convert mechanical energy into electrical energy is called:
☐ Transformer ☐ Generator ☐ Motor ☐ Capacitor
10. The transfer of heat through direct molecular contact is called:
☐ Radiation ☐ Convection ☐ Conduction ☐ Evaporation
11. The best reflector of heat is:
☐ Black surface ☐ Rough surface
☐ White or shiny surface ☐ Transparent surface
12. Which process of heat transfer can take place in a vacuum?
☐ Conduction ☐ Convection ☐ Radiation ☐ Evaporation
13. The unit of electrical resistance is:
☐ volt ☐ ampere ☐ ohm ☐ watt
14. The power of a lens is measured in:
☐ joules ☐ watts ☐ diopters ☐ newtons
15. The SI unit of electric charge is:
☐ coulomb ☐ volt ☐ ohm ☐ ampere
16. The main function of a transformer is to:
☐ Convert AC to DC ☐ Change voltage levels
☐ Store electrical energy ☐ Generate electricity
17. Which of the following is the best heat conductor?
☐ Aluminum ☐ Tin ☐ Iron ☐ Copper
18. 310 K in centigrade scale is _____.
☐ 37°C ☐ 310°C ☐ 63°C ☐ 273°C
19. A rock weighs 25.7 N in air and 1.8 N in water. What is the buoyant force of the water?
☐ 4.1 N ☐ 3.9 N ☐ 1.18 N ☐ 0.84 N
20. Which one is more elastic?
☐ Rubber ☐ Wood ☐ Steel ☐ Plastic
21. If the speed of a car decreases by half. The kinetic energy change by a factor _____.
☐ 4 ☐ 2 ☐ $\frac{1}{2}$ ☐ $\frac{1}{4}$
22. The angle at which x and y components of force are equal is _____.
☐ 0° ☐ 30° ☐ 45° ☐ 60°
23. The centripetal acceleration for an object of mass 1 kg moving with 6 m/s in a circle of radius 3 m is.
☐ 18 m/s^2 ☐ 12 m/s^2 ☐ 10 m/s^2 ☐ 2 m/s^2
24. A bird begins to accelerates at a constant 0.3 m/s^2 for 3 s. Its change in velocity is _____.
☐ 0.9 m/s ☐ 1.5 m/s ☐ 1.95 m/s ☐ 2.4 m/s
25. KITAB UL MANAZIR is the name of book written by _____.
☐ Yaqub Kindi ☐ Ibnal Haitham ☐ Al Beruni ☐ None of these