

SAMPLE PAPER

UNIT TEST – 1

CLASS - XI

SUBJECT – ENGLISH

TIME-2hrs.

MM: 50

GENERAL INSTRUCTIONS-

- 1. All questions are compulsory.**
- 2. Strictly adhere to the prescribed word limit.**

SECTION A –READING COMPREHENSION (12marks)

1. Read the following passage carefully.

1. Millions of people in Delhi reside in shanty-towns and informal dwellings often with garbage bag plastic roofs and walls. Others live in the equivalent of tents or worse. However they are not so unlucky as the large number of people who live in the streets. There are many reasons for this malaise.

2. After the partition of India there has been large scale illegal migration from Pakistan and Bangladesh and most of these migrants have settled in the slums of Delhi. One such settlement area in Delhi is Seemapuri. There are many lakhs of such people living in very poor conditions here. Many of them are rag pickers and they find the slums of Delhi a far better place than their own villages in Bangladesh due to extreme poverty there. There were also migrations from Punjab and Kashmir during 80s and 90s due to political upheaval the states had undergone. Secondly, the impoverishment of rural peasantry forces people to move out of villages to seek some subsistence.

3. Poverty and unemployment are other prominent reasons for migration to the city slums. But due to illiteracy the migrants are not able to get good jobs in the city and remain poor. Exploitation under the feudalistic society of rural India is another reason why people are forced to leave their land of birth. Due to the lack of development of infrastructure in the villages there are no job opportunities and it widens the gap between rural and urban India.

4. Delhi is ever expanding and one of the serious problems that Delhi encounters is lack of quality education for the young population of Delhi. For such a largely populated metropolitan city like Delhi there are just about 100 quality schools, most of them are public schools run by private management. Though the government had allotted land to these educational institutions at a very cheap rate with the promise that 25% of admissions should be reserved for poor, not many of the managements fulfil that promise. The fees of these schools are so exorbitant that poor people can never get an opportunity to study in these institutions. The government run MCD schools are in such a pathetic condition that they cannot cater to the educational needs of the millions in the emerging world class city, Delhi.

5. Exploitation follows illiteracy and poverty. Poor people often fall prey to exploitation. Even though the government is spending crores of rupees to alleviate poverty in Delhi, it doesn't often reach the poor and the needy. Not even one-fourth of the total amount spent by the government reaches them. Politicians and middlemen siphon off the funds meant for the poor. It is a national shame that many lakhs of children in Delhi are victims of child labour. They work as domestic labourers or they work in various factories across the city. Children cleaning floors and tables in shanty restaurants, weaving saris and carpets, packing and hauling loads in factories are a common sight in Delhi.

1.1. On the basis of your reading of the passage, answer the following questions by choosing the best option: (1x6 =6)

1.2. Answer the following questions briefly: a) How do the poor live in Delhi? 2

- a) Why is it that the poor in Delhi are denied an opportunity for quality education? 2
 - b) What is the main reason for the ever increasing gap between urban and rural India? 1
 - c) What are the reasons for exploitation in a society? 1

SECTION – B WRITING**(15marks)**

Q2. You are sports captain of St. John Public School, Gurgaon. Write a notice in not more than 50 words for school notice board, informing the students about the inter school match to be played between your school and ABC Public School. Give all necessary details. (5m)

Q3. The use of poly bags is great threat to our survival. Reacting upon the dangerous impact on their use, the government has advocated to ban the use of poly bags. Encouraged with the view write an article for your school magazine on ‘Say ‘No’ to poly bags’. (10m)

SECTION – C GRAMMAR**(8marks)**

Q4. Fill in the blanks with suitable determiners: (3 marks) There was _____ accident near _____ central market this morning _____ car hit _____ scooter and _____ man on _____ scooter was killed.

Q5. The following passage has not been edited. There is one error in each line. write the incorrect word and the correction in your answer sheet against the correct question number. Remember to underline the word you have supplied. The first correction has been done as an example. ($\frac{1}{2} \times 6 = 3$)

	INCORRECT	CORRECT
Nothing, they say, was more constant than change.	e.g. was	is
Science, being a dynamic subject, was regularly witness	(a) _____	_____
to changes, as old theories periodically gets discarded	(b) _____	_____
and new ideas regularly pop up. We are living at very	(c) _____	_____
interesting times. A scientific temper, having lain	(d) _____	_____
quiescent for some years, is get charged with a slew of	(e) _____	_____
new discoveries tumbling in of laboratories around the globe.	(f) _____	_____

SECTION – D LITERATURE (15marks)

Q7. Read the extract given below and answer the questions that follow: (3marks)

All three stood still to smile through their hair
At the uncle with the camera. A sweet face,
My mothers, that was before I was born.

1. Who were the three in the first line?
2. Who was clicking the photograph?
3. Whose ‘sweet face’ has been referred to here?

Q8. Answer the following in about 30 – 40 words: (3x2=6)

1. Why was the author’s grandmother unhappy with the city education?
2. What did the captain tell about the island Ile Amsterdam?
3. How did the sparrow show that they had not come for the bread?

Q9. Answer the following in about 40 – 60 words: (2x3=6)

1. The narrator's uncle Khosrove was considered to be a crazy fellow. Give a few examples of his craziness.
2. Did the boys return the horse because they were conscience – stricken or because they were afraid?

UT-I Sample Paper

CLASS –XI

SUBJECT – MATHEMATICS

TIME: 2Hrs

M.M.50

General Instructions:

- Section A consists of 4 questions of 1 mark each.
- Section B consists of 4 questions of 2 marks each.
- Section C consists of 5 questions of 4 marks each.
- Section D consists of 3 questions of 6 marks each.

SECTION – A

1. Write the set $A = \{1, 4, 9, 16, 25, \dots\}$ in set builder form.
2. Let $A = \{1, 2, 3, 4, 5, 6\}$, $B = \{2, 4, 6, 8\}$. Find $A - B$ and $B - A$.
3. If $\left(\frac{x}{3} + 1, y - \frac{2}{3}\right) = \left(\frac{5}{3}, \frac{1}{3}\right)$, find the values of x and y .
4. If $A = \{1, 2, 3\}$, $B = \{3, 4\}$ and $C = \{1, 3, 5\}$ find $A \times (B \cup C)$.

SECTION – B

1. If $P = \{1, 2\}$, form the set $P \times P \times P$.
2. Let $U = \{1, 2, 3, 4, 5, 6\}$, $A = \{2, 3\}$ and $B = \{3, 4, 5\}$. Find A' , B' , $A' \cap B'$.
3. Determine the domain and range of the following relation:

$$\{(x, y) : y = |X - 1|, x \in Z \text{ and } |x| \leq 3\}$$

4. If $f(x) = x^2$ and $g(x) = (2x+1)$ be real functions, Find $(f-g)(7)$.

SECTION – C

1. The function f is defined by

$$f(x) = \begin{cases} 1 - x, & x < 0 \\ 1 & x = 0 \\ x + 1, & x > 0 \end{cases}$$

Draw the graph of $f(x)$.

2. A college awarded 38 medals in football, 15 in basketball and 20 in cricket. If these medals went to a total of 58 men and only three men got medals in all the three sports, how many received medals in exactly two of the three sports?
3. A survey was conducted of the T.V. programme watched by 120 students of a school hostel. It was learnt that 70 students watched “Discovery channel” and 56 watched “sports channel” and 24 watched both the programmes.
 - i) Find the number of students who did not watch T.V on that day.
 - ii) Find the number of students who did watch sports channel only.
4. Prove the following by using the principle of mathematical induction for all $n \in \mathbb{N}$

$$1.2 + 2.3 + 3.4 + \dots + n.(n+1) = \left[\frac{n(n+1)(n+2)}{3} \right].$$

5. Let A and B be any two sets. Prove that

$$(A \cup B)' = A' \cap B'$$

SECTION – D

1. Using the principle of mathematical induction prove that $41^n - 14^n$ is a multiple of 27.
2. Find the domain and range of the following real functions:
 - i) $f(x) = -|x|$
 - ii) $f(x) = \sqrt{9 - x^2}$
3. Prove that

$$10^{2n-1} + 1 \text{ is divisible by 11, for all } n \in \mathbb{N}.$$

**SAMPLE PAPER
UNIT TEST - I
CLASS - XI
SUBJECT - COMPUTER SCIENCE**

Time : 2 Hrs Max

marks : 50

- Q1.** (a) Write any four features of Python.

2

- (b) What are the two ways to use Python interpreter?

2

- (c) Write any four basic numeric data types used in Python.

2

- (d) Write a program that asks two people for their names; stores the names in variables called

2

Name1 and Name2; says hello to both of them

- (e) What are the rules for naming an identifier?

2

- Q2. (a) What is comment? Which operator is used to write comment in Python?

Give example.

2

- (b) Write any two assignment statement to assign float and string value.

2

- (c) What are different arithmetic operators used in Python?

2

- (d) Write the precedence of operators used in Python.

4

- Q3. (a) Write following arithmetic expressions using operators in Python:

4

(i) $c = \frac{a+b}{2a}$

(ii) $x = a^3 + b^3 + c^3$

(ii) $A = \pi r(r+h)^2$

(iv) $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$

(b) Evaluate the following expression with precedence of operator:
2

$$X = 2 * 3 / 5 + 10 // 3 - 1$$

(c) Explain if...else statement with the help of an example.
3

(d) Write statement in Python to find absolute value of -100.
1

Q4. (a) Write a program to find maximum of 3 numbers using nested if..else statement. 3

(b) Write a program to input values for Principle, rate and Time and calculate compound interest.
3

(c) Write a program to input age of a person and print message “Eligible to Vote” if age is more than 18 otherwise print message “not eligible to Vote”.
2

(d) Write a program to check whether the entered number by user is even or odd. 2

Q5. (a) Find the output :
2

$x, y = 10, 15$

if ($x \geq y$):

$z = x + y$

else:

$z = x - y$

```
z = z ** 2  
print "result =", z
```

- (b) Rewrite the following program after finding and correcting syntactical errors and underlining it.

2

```
a,b = 0  
if (a = b)  
    a +b = c  
print z
```

- (c) What will be the output of the following code:

2

```
A = 3 - 4 + 10  
B = 5 * 6  
C = 7.0/2.0  
D = "Hello" * 3  
print "Value are :", A, B, C, D
```

- (d) Write a program that takes name of student, marks (out of 100) of 3 subjects from user and calculate total marks, percentage and grade as per the following criteria: 4

Percentage	Grade
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≥ 75	A
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≥ 60 and < 75	B
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< 60	C
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UNIT TEST – I
PHYSICAL EDUCATION
CLASS – XI

TIME: 2 HRS **M.M:50**

1. What do you understand by Physical Education? (1)
2. What do you mean by sports journalism? (1)
3. Write down the Olympic Oath. (1)
4. How many rings are there in Olympic Symbol? Mention their colors also. (1)
5. Define Physical fitness? (1)
6. What are the components of positive life style? Describe any three? (3)
7. Describe the objectives of CBSE sports. (3)
8. Why is a healthy lifestyle important? (3)
9. What are the objectives of Physical Education? (3)
10. Write about the importance of wellness? (3)
11. Explain in detail about various Physical education courses available in India. (5)
12. Write a note on :-
(i) Chacha Nehru Award (ii) Olympic Flame (5)
13. What do you mean by IOA and IOC? Write the functions of IOA and IOC (5)
14. What are Ancient and Modern Olympics? Explain in detail. (5)
15. Explain in detail about changing trends in Physical Education. (5)
16. Explain in detail about the Arjuna , Rajiv Gandhi Khel Ratna and Dronacharya award. (5)

Unit Test – I
CLASS - XI
Physics

Time:- 1: 30 hrs.

M.M.: 50

General Instruction:-

- All questions are compulsory.
- Questions 1 to 5 carries 1 mark each
- Questions 6 to 11 carries 2 marks each
- Questions 12 to 17 carries 3 marks each
- Questions 18 to 20 carries 5 marks each

1. Which fundamental force/forces obey inverse square law?
2. Write the dimensional formulae of wavelength and frequency of a wave.
3. Can slope of displacement-time graph be negative ?
4. Can sum of two vector quantities be a scalar ?can it be a numeric ?
5. Draw position-time graph for accelerated motion with positive acceleration.
6. The distance of a galaxy is of the order of 10^{25} m. calculate the order of magnitude of time taken by light to reach us from the galaxy.
7. Find a unit vector parallel to the vector $(3\mathbf{i} + 7\mathbf{j} + 4\mathbf{k})$
8. Establish a relation between angular velocity and time period.
9. Check the correctness of the relation $v^2 - u^2 = 2as$ by method of dimensions. The symbol have their own meaning.
10. Derive the equation of motion $v = u + at$.
11. By the method of dimensions , find the value of acceleration of 8m/s^2 into Km/h^2 .
12. A car cover one half of its journey with a speed of 40 Km/h and other half with a speed of 60 Km/h . what is the average speed during the whole journey ?
13. Find the distance travelled by the uniformly accelerated object moving in one dimension in n th second.

14. Describe the parallax method to measure the distance of a planet from the earth.
15. State triangle law of vector addition. Find analytically the magnitude and direction of resultant vector.
16. Explain unit vector, coinitial and collinear vectors.
17. Give three important characteristics of gravitational force.
18. From the top of a tower 100 m in height a ball is dropped and at a same instant another ball is projected vertically upwards from the ground so that it just reaches the top of the tower. At what height do the two balls pass one another ?
19. A student performed an experiment and found following values of the refractive index of a liquid :
- 1.29, 1.33, 1.34, 1.35, 1.32, 1.36, 1.30, 1.33
- Find the mean value of refractive index, the mean absolute error, the relative error, and the percentage error.
20. What is projectile. Find (i) time of flight (ii) Max. height (iii) Horizontal range of projectile with speed v making an angle θ with the horizontal direction from the ground.

UT-I
Class XI
Subject: Biology

Time: 3Hrs

M.M.:50

General Instructions:

- All questions are compulsory
- This question paper consists of five sections A, B, C, and D.
- Section A comprises of Q1. to Q5. of 1 mark
- Section B comprises of Q6. to Q11. of 2 marks
- Section C comprises of Q12. to Q17. of 3 marks
- Section D comprises of Q18. to Q20. of 5 marks

SECTION A

- Q1. Give the full form of IUCN.
- Q2. Who wrote the book “Systema Naturae”.
- Q3. Give an example of a plant which produces seed but not fruit.
- Q4. Write the botanical name of Mango.
- Q5. What are acelomate animals? Give one example also.

SECTION B

- Q6. What are Bacteriophages?
- Q7. What is algin?
- Q8. Define extinction. List the causes of extinction.
- Q9. Discuss the drawbacks of two-kingdom system classification.
- Q10. What is heterospory?
- Q11. Name the following:
 - (i) Dry cornified skin.
 - (ii) Cold-blooded animal
 - (iii) Warm-blooded animal
 - (iv) Limbless animal

SECTION C

- Q12. How Ascomycetes are different from Basidomycetes?

Q13. "All vertebrates are chordates but all chordates are not vertebrates" justify the statement.

Q14. Distinguish between cryptogamae and phanerogamae.

Q15. What is meant by "Hot spots" in Biodiversity? List two criteria used for determining a hot spot. Name two hot spots of India.

Q16. Write briefly on a) mode of life in Protista b) Nutrition in Fungi.

Q17. What are the identifying traits of Monera?

SECTION D

Q18. Describe the common mode of reproduction in Angiosperms.

Q19. Explain briefly the following terms with suitable examples:-

- (i) protonema
- (ii) antheridium
- (iii) Isogamy
- (iv) diplontic
- (v) sporophyll

Q20. Enlist the main features of Aschelminthes & give examples.

UNIT TEST (I) SAMPLE PAPER

XI

CHEMISTRY

TIME: 2Hrs

M.M: 50

General Instruction:

- (i) Question numbers 1 to 5 are one mark questions.
- (ii) Question numbers 6 to 12 are two marks questions.
- (iii) Question numbers 13 to 19 are three marks questions.
- (iv) Question numbers 20 to 21 are five marks questions.

1. Calculate the number of moles of oxygen atoms in 22g of CO₂.

2. Calculate the charge on 1 mole of electrons.
3. How does ionization enthalpy vary along a period and down the group?
4. Write the S.I units of Avogadro's constant.
5. Out of K and K^+ which one would have larger size?
6. 0.5 mol each of H_2S and SO_2 are mixed together in a flask in which the following reaction takes place: $2H_2S + SO_2 \rightarrow 2H_2O + 3S$
Calculate the number of moles of sulphur formed.
7. Predict the formulae of the stable binary compounds that would be formed by the following pairs of elements:
 - a) Aluminium and bromine
 - b) Sodium and oxygen
8. Using s,p,d notations, describe the orbital with the following quantum numbers:
 - I) $n=4, l=2$
 - II) $n=1, l=0$
9. Name the groups of elements classified as s, p, d and f blocks in the modern periodic table.
10. How are Lithium and Mg related to each other in the periodic table? Write the name of another pairs having such a relationship.
11. How many significant figures are there in
 - A) $0.0125+0.7864-0.023$
 - b) $0.025*298.15*0.1155$
10. A 5A laser used to read compact disc (CD) emits red light of wavelength 700nm .
How many photons does it emit each if its power is 1 W ?
11. On the basis of quantum numbers, justify that the fifth period of periodic table should have 18 electrons.
12. A sample of polluted water has been found ($CHCl_3$) to have 15 ppm in it.
 - a) Express this value in mass percentage.
 - b) Determine the molality of chloroform in water sample.
13. Determine the molecular formula of an oxide of iron in which the mass percentage of iron and oxygen are 69.9 and 30.1. Molar mass of this oxide is 170 g/mole
14. How many grams of HCl react with 5g of MnO_2 according to the following reaction?
$$4HCl + MnO_2 \rightarrow 2H_2O + MnCl_2 + Cl_2$$
15. a) State Heisenberg's uncertainty principle.
b) Electron cannot exist inside the nucleus. Explain [atomic radius= 10^{-15}m]
16. The energies of electrons are said to be quantized. Explain.

17. Calculate the energy associated with the first orbit of He^+ . What is the radius of this orbit?
18. Calculate the energy required to excite the electron in the atom from $n=1$ to $n=2$.
The ionization energy of hydrogen is $1.312 \times 10^6 \text{ J/mole}$.
19. Arrange the following species as stated, giving reasons:
a) Increasing order of electronegativity (H, F, Cl)
b) Increasing order of ionic size (N^{3-} , Na^+ , F^- , O^{2-} , Mg^{2+})
20. A, B, C are three elements with atomic numbers $Z-1$, Z and $Z+1$. B is an inert gas.
Answer the following:
a) Predict the group of A and C
b) Which out of three elements has positive electron gain energy?
c) Which of the above elements has the least value of I.E?
21. A welding fuel gas contains carbon and hydrogen only. Burning a small sample of it in oxygen gives 3.38 g carbon dioxide, 0.690 g of water and no other products. A volume of 10.0 L (measured at STP) of this welding gas is found to weigh 11.6 g.
Calculate :
(a) Empirical formula,
(b) Molar mass of the gas, and
(c) Molecular formula.