KENDRIYA VIDYALAYA K-AREA, ZIRAKPUR
CLASS XI B 2023-24 HOMEWORK FOR AUTUMN BREAK
<u>ENGLISH CORE</u>
Q1.Read "Mother's Day" by J.B. Priestley. Write the Summary and do all the textual and extra questions in your fair notebook.
Q2.Write the passage given below and answer the questions that follows:

 1. New Delhi : It seems the common house sparrow has disappeared from the city. But ornithologists maintain that while sparrow numbers are dwindling, the bird has not disappeared entirely from the city and only shifted to more inhabitable parts. Conservationists are now trying to understand why some areas have managed to hold back sparrows and what has driven them away from others.

 2. A recent countrywide survey initiative called Citizen Sparrow is now roping in residents who want to report about their experience with sparrows. So far this unique sparrow survey organized by the Bombay National History Society (BNHS) and Ministry of Environment and Forests (MOEF) has received close to 410 responses from Delhi. Of these, 86 have claimed they have not seen any sparrows at all. But the majority seems to have sighted the bird, which gives new hope to conservationists.

 3. I have seen lots of sparrows in Ghaziabad, in Sheikh Sarai where I live but hardly any in say the Greater Kailash area. What is different in GK and other parts is still a mystery. But certain factors drawing the birds have become clearer, such as they nest more around old buildings, houses or may be in houses where there are old electricity meters, kitchen gardens, shrubs, says co-in-vestigator, BNHS Citizen Sparrow Project, Koustubh Sharma.

 4. Another conservationist and birder, Ananda Banerjee says she has seen lots of sparrows in parts of Lutyens Delhi, Mayur Vihar, parts of old Delhi and parts of Noida. He cites urban landscape to be the reason behind the decline in the sparrow population.

 5. "Urban architecture, tall glass buildings that lack nesting spaces for the sparrow, pesticides used in farming that kill the worms that sparrows feed on are some of the reasons. Even our markets have changed. There are not many open markets where they can get grains. But you can see lots of sparrows in Khari Baoli open grain market," he says.

 6. But there is no doubt among conservationists that sparrows are fast disappearing. Declining number of sparrows and their complete absence from some parts of the city isn't just about missing the tiny bird. It is an indicator of something more grave.

 7. Ecologist and forestry expert, Neeraj Khera, who has been studying the sparrow population in Delhi feels that sparrows are an important indicator species. "There is always a threshold level. Big changes like an epidemic outbreak for instance will not happen overnight, but when we cross the buffer line then changes take place in our ecosystem. Sparrows as an indicator species are very sensitive to change. So it's obvious that a lot must have changed in our ecology to have driven them away," says Khera.

 8. Some of the important factors responsible are air and water pollution, loss of

native herbs and shrubs.
 9. Another trend being noticed by experts is the increase of rock pigeons in most parts of Delhi. They seem to have almost replaced the sparrows that used to nest in the same places.
 10. "Rock pigeons have almost grown out of proportion and taken up the space of sparrows. They can be seen nesting in houses and other buildings. Studies have shown that it is not a welcome change as the excreta of rock pigeon carries a lot bacterial pathogens," said Khera.
 11. She says that sparrow population is moderate in places where there are old government buildings, water bodies or green spaces. Saving the sparrow, she says is not a lost cause yet. It is the right time to intervene and check further decline. It will take 'Citizen Sparrow' survey a couple of more months to come up with the preliminary analysis of the results from their – survey and may offer a stronger argument on why the sparrows are disappearing from the city
Source : The Times of india
A. (a) What is Citizens Sparrow and who has initiated it? 2
(b) What has increased the hope of conservationists? 2
(c) According to survey study, which type of house is sparrows first choice of nesting? 2
(d) How use of pesticides in farming responsible for decrease in sparrows population? 2
(e) What did the ecologist Neeraj Khera observe? 1
B. Find out words from the passage which means the same as the following:(1x3) = 3
(a) becoming less or smaller (Para 1)
(b) secret/observe/impossible to understand (Para 3)
(c) picture of inland scenery (Para 4)
Q3.Write Speeches on the following topics (120 to 150 words)
1.Indian T.V. - Serving the Nation
2.Hazards of T.V. watching for the kids
3.Value Education - A Part of Curriculum in Schools
4.Keeping Your School Neat and Clean
5.Role of Students in Eradicating Illiteracy
Q4.Write two Passages for Note-making. Make notes and write the Summary.
Q5.Do the entire Holidays' Homework in your fair notebook and learn the syllabus covered upto date.
—-------THE END—------------
    शरदावकाशगृह कार्य

प्रश्न 1 . अवकाश के कोई तीन दिनों की डायरी लिखकर लाएँ जब आपने कोई त्यौहार मनाया हो या अपने किसी स्थान की यात्रा की हो

प्रश्न 2   पत्र लेखन

 (1) अपने शहर में पेड़ों की अंधाधुंध कटाई की समस्या से उत्पन्न कठिनाइयों की ओर ध्यान आकर्षित करते हुए किसी समाचार पत्र के संपादक को पत्र लिखें

(2) अपने शहर में सफाई सुविधाओं की दुर्दशा का वर्णन करते हुए सफाई सुविधा उपलब्ध कराने)हेतु स्वास्थ्य अधिकारी को पत्र लिखें

प्रश्न 3   बजनसंचार के प्रमुख माध्यमों (समाचार पत्र और टेलीविजन) पर आधारित बीस -बीस बहुविकल्पीय प्रश्न तैयार करिए।

प्रश्न 5. अप्रत्याशित विषय पर रचनात्मक लेख :—

*भारत की वैज्ञानिक उन्नति

* खेलों में बढ़ता वर्चस्व भारत का

प्रश्न 6. छुट्टियों के दौरान कोई भी पुस्तक पढ़कर उसकी पुस्तक समीक्षा लिखकर लाएं

INFORMATICS PRACTICE

SECTION A

1.   Identify Input Device from the following

a. RAM   b. Monitor   c. Light pen   d. speaker

2.   Which of the following is hardware?

a. RAM Chip   b. Windows OS   c. Compiler   d. keyboard

3.   ___works as an interface between Computer and the Hardware

4.   Any device/part which is tangible (easily seen, felt, or noticed) is called

5.   ___converts source code into object code

6.   An Example of volatile memory is_____

7.   Nonvolatile means_____

8.   Android is an example of_____

9.   The main three parts of Mobile CPU are_____,

Application Processing Unit and Graphics processing Unit.

10.   In mobile System , SoC stands for_____

SECTION B

1. Which of the following is a valid identifier:
i. 1sum   ii.   _sumiii. total marks iv. f l o a t
2. Which of the following is not a relational operator:
                        i.   >   ii.   <=   iii. =   iv. ==
3. Identify the membership operator from the following:
i. in   ii.   not in   iii. both i & ii   iv. None
4. Which one is not an arithmetic operator:
i. //   ii.   ** iii. <   iv. All are arithmetic operators
5. What will be the correct output of the statement :
>>> 7//5.0
i. 1.4   ii.   1.0 iii 2   iv. None of the above
6. What will be the correct output of the statement :
>>> 5+2**3*2+5
i. 28   ii.   20 iii. 26   iv. None of the above

7. Give the output of the following code:

>>> 2**2**3

i. 81   ii.   256 iii. 12   iv. 88

8. Give the output of the following code:

>>>7*(8/(5//2))

i. 28   ii.   28.0   iii. 20   iv. 60

9. Single line comments in python begin with…   symbol.

i. #   ii.   "   iii.   %   iv. <<

10. The input() function always returns a value of   type.

i. Integer   ii.   float   iii. string   iv. Complex

11. function is used to determine the data type of a variable.

i. type( )   ii.   id( ) iii. print( )   iv. str( )

12. The smallest individual unit in a program is known as a……………

i. Token   ii.   keyword iii. punctuator iv. Identifier

13.   If a=12 and b=12 then **id(a)** and **id(b)** will give_____
(same/ different) address

14   String is an example of_____(immutable / mutable data type)

SECTION C

1   Identify the datatype of the following

a. False   b. "true"   c. 34   d. 45.0

2   Identify the data type of R in every case ..

R=[2,3,4]   b. R= (23,12,34,56) c. R=23/4   d. R=23//4

3   Identify System Software(s) from the following

a. UNIX   b. Paint Brush   c. Windows   d. DOS

4.   In Python IDLE we can work in two modes_____&

SECTION D

1.   Write a program to calculate Simple Interest. required values must be taken from user

2.   Write a program to read 5 float values and calculate their sum and average

3.   Write a program to read population of 3 countries and find Which country is having largest population

4.   Find out the error(s) in the following code segment. Underline the error part 2and write the correct code in front of the incorrect code

a=input("Enter age of a person") if a>21 then
print("person is an Adult")
else
print("person is not an Adult")

5.   Find out the output

print(" Python is an \n Interactive and easy language",sep='*',end='**") print("It is portable", " Highly readable langauge", sep='&',end='**")

6.   Find out the output M=[2,4,6,8,12,16,20]
print("List is ",M) M[2]=9
M[-3]=22

print("Now List is ", M)

SECTION E CASE STUDY BASED QUESTIONS

1.   Priyanka is wants to type a NOTICE for school on computer but she is confused about few things. Help her by giving answers of the following :

a.   Which Software should be used for this purpose

b.   The software used to type NOTICE comes under which category of Software

c.   Where to Save NOTICE ? The storage device which will be used to store this NOTICE, comes under Primary Storage or Secondary Storage?

2.   Rohit wants to check **address** and **type** of Objects (variables) in python but he does not know how to do this. Help him by suggesting proper python command

3.   Raksha has made program to add two numbers. Though program is not showing any error but she is not getting desired output. Help her to find out actual problem

N1=input("Enter any number") N2=input("Enter another number")
R=N1+N2
print("Sum of ",N1,"and",N2,"is".R)

ECONOMICS

1. Prepare PROJECT on Economics for final practical examination.

   2. Practice numerical on Costs concepts

   3. Revise all the topics of Statistics

   4. Practice different diagrams given in microeconomics on different

ACCOUNTANCY

A. Prepare project on any of the following topics

   1.   Comprehensive project
   2. Bank reconciliation statement
   3. Source documents

   B. Revise properly for half yearly examination - till depreciation, reserves and provisions.

BUSINESS STUDIES

1.Revise properly for half yearly exams - 1 to 6 chapters.

   2. Prepare a project report on the topic -

   A. E-business for roll number 1 to 18

B. E- banking for roll number 19 to 36

<u>**PHYSICAL EDUCATION**</u>

- ☐ Learn all chapters of Unit 7.

- ☐ Learn relaxation techniques for improving concentration.

- ☐ Learn and perform any 7 sitting and standing yogasna.

- ☐ Write various PHE courses available in India.

- ☐ Make a diagram of Olympic flag.

- ☐ Prepare an assignment on components of Health related fitness.

- ☐ Write any five qualities of Physical Education

Teacher

SUBJECT-MATHEMATICS

Practice Set Half Yearly

CLASS-XI

Max Time -3 Hrs.   Max Marks- 80

General Instructions:

This question paper comprises five Sections A, B, C, D, and E. This question paper carries 38 questions. All questions are compulsory.

Section A: Questions no. 1 to 18 comprises 18 MCQ and 2 Assertion -Reason based questions of 1 mark each

Section B comprises 5 very short answer questions of 2 marks each

Section C comprises 6 Short Answer Type Questions of 3marks each.

Section D comprises 4long Answer Type Questions of 5marks each.

Section E comprises 3case studies of 4 marks each.

The use of calculators is not permitted.

Section A (Write necessary steps)

1. The number of subsets of a set of Vowels is

   a) 5   b) 16   c) 32   d) 64

2. If n(A) = n (B) = 70, and n(AUB) = 89, then n (A∩B) is

   a) 49   b) 62   c)   51   d) 53

3. The interval form of {x: -1<x ≤ 3, x € R } is

   a) (- 1, 3)   b) (-1, 3]   c) [-1 , 3)   d) [-1 , 3]

4. If A = {x, y, z} and B = {1,2} then the number of non-empty relations from A to

   B is   a) 6   b) 2^6 c) $2^6 - 1$ d) 2^5

5. The domain of the real function $\sqrt{9 - x^2}$ is

   (a) $[- 3, 3]$ (b) $(- 3, 3]$ (c)$(- 3, 3)$ (d) $(0, 3]$

6. If A and B are 2 sets such that n (A×B) =6 and some of the pairs of A×B are
   = {(3,2),(7,5),(8,5)] then which is true?

   a) A = {3,7,8}   b) B = {2,5,7}   c) B ={3,5}   d) A ={2, 3, 4, 6, 7}

7. A wheel makes 360 revolutions in one minute. Through how many radians does
   it turn in one second?

   (a) 6π   (b) $\sqrt{2}$π   (c)π   (d) 12π

8. The value of $\sin \sin (45 + \theta) - \cos \cos (45 - \theta)$ is

   (a) $2 \cos \cos \theta$ (b) $2 \sin \sin \theta$ (c) 1   (d) 0

9. If $\sin \sin \theta + \theta = 1$, then the value of $\sin \sin 2\theta$ is equal to

   (a) 1 (b) $\frac{1}{2}$ (c) 0 (d) -1

10. How many chords can be drawn through 21 points on a circle?
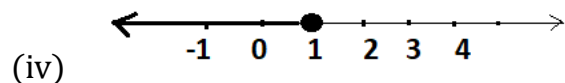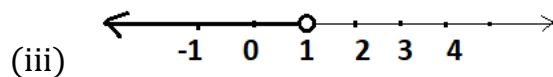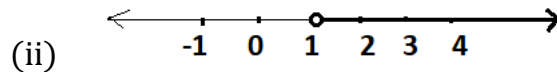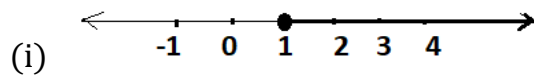
   (a) 200 (b) 180 (c) 420 (d) 210

11. Everybody in a room shakes hands with everybody else, the total number of handshakes is 66. The total number of persons in the room is

   (a) 11 (b) 12 (c) 13 (d) 14

12. The solution set of the inequality $4x + 3 < 6x + 7$ is

   (a) $[-2, \infty]$ (b) $(-\infty, -2)$ c) $(-2, \infty)$ d) none of these

13. The graph of the solutions of inequality $\frac{3x-4}{2} \geq \frac{x+1}{4} - 1$ on number line is

   (i)   -1 0 1 2 3 4

   (ii)   -1 0 1 2 3 4

   (iii)   -1 0 1 2 3 4

   (iv)   -1 0 1 2 3 4

14. The sum of exponents of x and y in the expansion of $(x + y)^n$ is

   $(a)n^2$ (b) n+1 (c) 2n (d) n

15. How many 3-digit even numbers can be formed from the digits 1, 2, 3, 4, 5, 6 if the digits can be repeated?

   (a) 216 (b) 120 (c) 108 (d)27

16. The least positive integer ' n ' such that $\left(\frac{1+i}{1-i}\right)^n = -1$ is _____

17. The value of $i^n + i^{n+1} + i^{n+2} + i^{n+3}$ is _____

18. The value of $(-1410°)$ is _____

II. ASSERTION – REASONING TYPE QUESTIONS

DIRECTION : In each of the following questions(Q NO 19 and Q NO 20), a statement of Assertion is given followed by a corresponding statement of Reason just below it. Of the statements, mark the correct answer as

(a) Both assertion and reason are true and reason is the correct explanation of assertion.
(b) Both assertion and reason are true but reason is not the correct explanation of assertion.
(c) Assertion is true but reason is false.
(d) Assertion is false but reason is true

19. Assertion (A) : The relation R = {(2, 4), (3, 6), (2, 8), (1, 0)} a function

   Reason (R) : Every function is always a relation

20. Assertion (A) : If $\alpha + \beta = \pi/4$, then the value of $(1 + \tan \alpha)(1 + \tan \beta)$ is 4

   Reason (R) : $(A + B) = \frac{tanA+tanB}{1-tanA\,tanB}$

SECTION B

21. If A and B are two sets and U is the universal set such that n (U) = 700, n(A) = 200, n(B) = 300 and n(A ∩ B) = 100 , find n(A' ∩ B').

22. Let f = {(1,12),(-1,-6),(2,21),(0,3)} be a function from Z to Z defined by f(x) = ax+b for some integers a and b.Find the value of a and b.

23. If $(1 - i)x + (1 + i)y = 1 - 3i$, find x and y

24. Prove that $\sin(40 + \theta).\cos(10 + \theta) - \cos(40 + \theta).\sin(10 + \theta) = \frac{1}{2}$

OR

If $\cot x = \frac{-5}{12}$, x lies in second quadrant, find the values of other five

trigonometric function

25. Anu obtained 73, 67 and 72 marks in mathematics test. How many should she

get in his fourth test, to have an average of at least 75.

OR

Solve the system of inequalities; $x + 2 > 0$ and $3x - 8 < 1$.

SECTION C

26. Find the modulus of $\frac{1+i}{1-i} - \frac{1-i}{1+i}$

27. *Prove that*: $(\cos \alpha - \cos \beta)^2 + (\sin \alpha - \sin \beta)^2 = 4 \sin^2\left(\frac{\alpha-\beta}{2}\right)$

OR

Show that: $\tan 13x - \tan 9x - \tan 4x = \tan 4x.\tan 9x.\tan 13x$

28. Let $f = \left\{\left(x, \frac{x^2}{1+x^2}\right): x \in R\right\}$ be a function from R into R. Determine the range of f.

29. Draw appropriate Venn diagram for each of the following

  a) $A' \cap B'$ b) $A' \cap (B \cup C)$

30. If $(x + iy)^3 = u + iv$, then show that $\frac{u}{x} + \frac{v}{y} = 4(x^2-y^2)$

31. Prove that: $\sum_{r=0}^{n} 5^r n_{C_r} = 6^n$ **OR**   Prove that:

  $(2 + \sqrt{5})^4 + (2 - \sqrt{5})^4 = 1364$

SECTION D

32. Let $U = \{x: x \in N \text{ and } x \leq 10\}$, $A = \{x; x \text{ is a factor of } 24, x \in N\}$,

$B = \{x; x = 2n - 1, n \in N\}$ Verify: i) $(A \cup B)' = A' \cap B'$

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

33.   If $\sin \sin x = \frac{-1}{2}$, x lies in quadrant IV ,then find the values of $\sin \sin \frac{x}{2}$,

$\cos \cos \frac{x}{2}$ and $\tan \tan \frac{x}{2}$

OR

Prove that: $\dfrac{\sin\sin A + \sin\sin 3A + \sin\sin 5A + \sin\sin 7A}{\cos\cos A + \cos\cos 3A + \cos\cos 5A + \cos\cos 7A} = \tan \tan 4A$

34. $The\ function\ 'f\ 'defined\ by\ f(x) = \{3 - x,\ x > 1\ 1,\quad x = 1\ 2x,\quad x < 1\ .Draw$
OR
Define modulus function? Draw its graph. Also,write domain & range of the modulus function?

35.   A group consists of 4 girls and 7 boys. In how many ways can a team of 5 members be selected if the team has (i) no girl (ii) at least 3 girls ((iii) atmost 3 girls

OR
Find the number of different 8-letter arrangements that can be made from the letters of the word ' ENGINEERING ' so that (i)starting with R (ii) all vowels occur together (iii) all vowels do not occur together.

SECTION E
36.   One day A, B and C etc. were observing the   playing cards for their Mathematics concept in an classroom and   they were thinking the number of ways

of choosing 4 cards from a pack of 52 playing cards. In how many of these
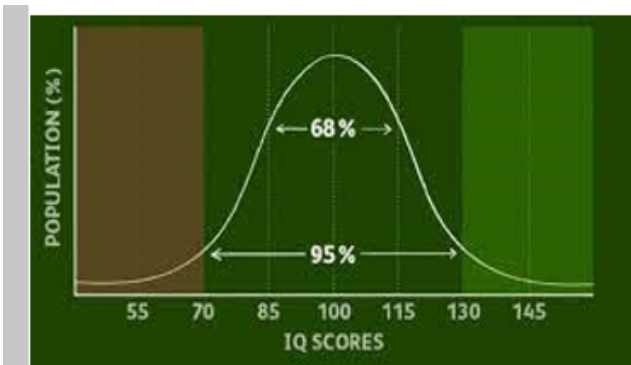

(i)   Four cards of same suit.

(ii)   Four cards belong to four different suits.

(iii)   are face cards,

(iv)   Cards are of same colour

37.   Given; $cos\ x = -\dfrac{4}{5}$, $siny = \dfrac{5}{13}$ and both x and y lie in Second quadrant

.

Based upon the above information , answer the following questions:

Find (i) $\sin \sin (x + y)$ (ii) $\cos \cos (x + y)$

38.   Sheena is a Psychology student and now a days she is learning about IQ (Intelligence Quotient) of a person. She knows the result, $IQ = \dfrac{MA}{CA} \times 100$, where MA stands for Mental Age and CA stands for Chronological Age.

(i) What would be the range of mental age if a group of children with chronological age of 15 years have the IQ range as $90 \leq IQ \leq 150$?

(ii) What would be the range of IQ if a group of children with chronological age of 12 years have the mental age range as $9 \leq MA \leq 15$.

****