

SpellIndia

INDIA's **1**
No.

SPELLING BEE

Preparatory Study Material
Provider

www.phonicstore.com

ICSE ACADEMY
www.spellbeeacademy.com



Array & String

for

ICSE

Class 10

Computer Applications

Questions Only

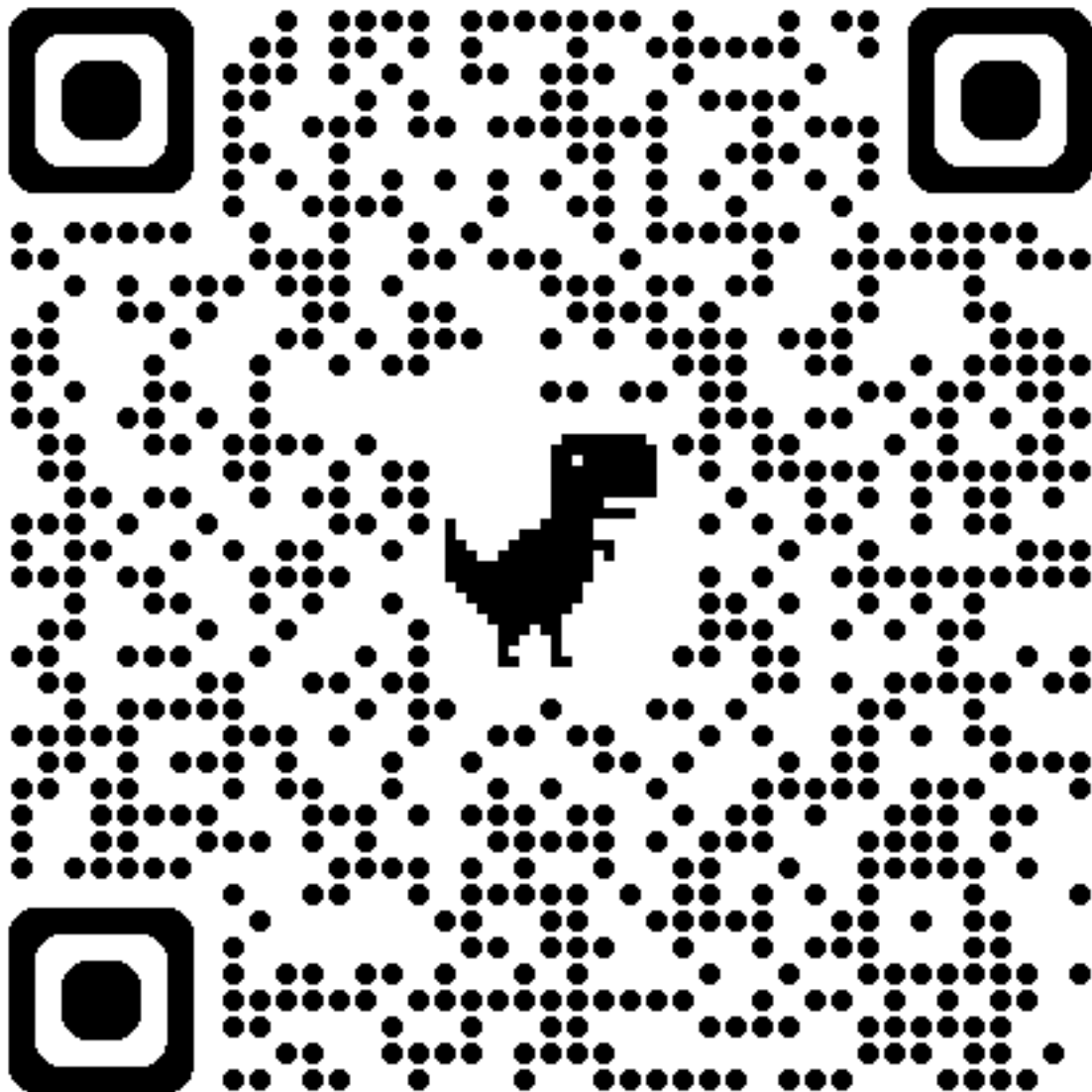
Board

Questions

Prepare for ICSE CLASS 10 Computer Applications

Free Resources

SCAN QR CODE Now



Board Questions on Array & String

Year=2005

Q1) Topic=String

Write a program to input any given string to calculate the total number of characters and vowels present in the string and also reverse the string:-

Example:

INPUT: Enter string : SNOWY

OUTPUT: Total number of characters : 5
Number of Vowels : 1
Reverse string : YWONS

Q2 Topic=Array, Out of syllabus for year 2022

Write a program to bubble sort the following set of values in ascending order:- 5, 3, 8, 4, 9, 2, 1, 12, 98, 16. Output: 1 2 3 4 5 8 9 12 16 98

Q3) Topic=Array

Write a program to initialize an array of 5 names and initialize another array with their respective telephone numbers. Search for a name input by the User, in the list. If found, display "Search Successful" and print the name along with the telephone number, otherwise display "Search unsuccessful. Name not enlisted".

Year=2006

Q4, Topic=String

Consider the following statement:- "January 26 is celebrated as the Republic Day of India". Write a program to change 26 to 15, January to August, Republic to Independence and finally print "August 15 is celebrated as the Independence Day of India".

Q5, Topic=Array

The marks obtained by 50 students in a subject are tabulated as follows:-

Name	Marks
?	?
?	?
?	?

Write a program to input the names and marks of the students in the subject.

Calculate and display:-

(i) The subject average marks (subject average marks = subject total) / 50

(ii) The highest mark in the subject and the name of the student.

(The maximum marks in the subject are 100)

Q6, Topic=Array Out of syllabus for year 2022

Write a program to accept 15 integers from the keyboard, assuming that no integer entered is a zero. Perform *selection sort* on the integers and then print them in *ascending order*.

Year=2007

Q7, Topic=Array

Write a program to initialize the given data in an array and find the minimum and maximum values along with the sum of the given elements.

Numbers : 2 5 4 1 3

Output : Minimum value : 1

Maximum value : 5

Sum of the elements : 15

Q8, Topic=String

Write a program to enter a sentence from the keyboard and count the number of times a particular word occurs in it. Display the frequency of the search word.

Example: INPUT: Enter a sentence : the quick brown fox jumps over the lazy dog.

OUTPUT: Searched word occurs : 2 times.

Q9, Topic=String

Write a program using a method Palin(), to check whether a string is a Palindrome or not. A palindrome is a string that reads the same from left to right and vice versa. E.g. MADAM, ARORA, ABBA, etc.

Year=2008

1Q, Topic=String

Write a program to input a string and print out the text with the uppercase and lowercase letters reversed, but all other characters should remain the same as before.

Example: INPUT : WelCome TO School

OUTPUT : wELcOMe to sCHOOL

11, Topic=Array Out of syllabus for year 2022

Define a class and store the given city names in a single dimensional array. Sort these names in alphabetical order using the Bubble Sort technique only.

INPUT: Delhi, Bangalore, Agra, Mumbai, Calcutta

OUTPUT: Agra, Bangalore, Calcutta, Delhi, Mumbai

Year=2009

12, Topic=String

Write a program to input a sentence and print the number of characters found in the longest word of the given sentence. For example if S="India is my country" then the output should be 7.

13, Topic=Array

The annual examination results of 50 students in a class is tabulated as follows.

Roll no.	Subject A	Subject B	Subject C
---	---	---	---

Write a program to read the data, calculate and display the following:

(a) Average mark obtained by each student.

(b) Print the roll number and average marks of the student whose average mark is above 80.

(c) Print the roll number and average marks of the student whose average mark is below 40.

Year=2010

14, Topic=Array

Write a program to perform binary search on a list of integers given below, to search for an element input by the user, if it is found display the element along with its position, otherwise display the message "search element not found" 5,7,9,11,15,20,30,45,89,97

15, Topic=Array

Shasha Travels Pvt. Ltd. gives the following discount to its customers:

Ticket amount	Discount
Above Rs. 70000	18%
Rs. 55001 to Rs. 70000	16%
Rs. 35001 to Rs. 55000	12%
Rs. 25001 to Rs. 35000	10%
less than Rs. 25001	2%

Write a program to input the name and ticket amount for the customer and calculate the discount amount to be paid. Display the output in the following format for each customer:

Sl. No.	Name	Ticket charges	Discount	Net amount
1	--	--	--	--

(Assume that there are 15 customers, first customer is given the serial no(Sl.No.) 1, next customer 2.... and so on)

16, Topic=Array

Write a program to store 6 elements in an array P, and 4 elements in an array Q and produce a third array R, containing all the elements of array P and Q. Display the resultant array.

EXAMPLE:	INPUT	OUTPUT
	P[] Q[]	R[]
	4 19	4
	6 23	6
	1 7	1
	2 8	2
	3	3
	10	10
		19
		23
		7
		8

17, Topic=String

Write a program to input a string in uppercase and print the frequency of each character.

Example:

INPUT: COMPUTER HARDWARE

OUTPUT:

CHARACTERS	FREQUENCY
A	2
C	1
D	1
E	2
H	1
M	1
O	1
P	1
R	3
T	1
U	1
W	1

Year=2011

18, Topic=Array Out of syllabus for year 2022

Write a program to input and store the weight of ten people. Sort and display them in descending order using the selection sort technique.

19, Topic=String

Write a program to accept a word and convert it into lowercase if it is in uppercase, and display the new word by replacing only the vowels with the character following it.

Example: Sample Input : computer
 Sample Output : cpmptvfr

Year=2012

20, Topic=String

Write a program to accept a string. Convert the string to uppercase. Count and output the number of double letter sequences that exist in the string.

Sample Input : "SHE WAS FEEDING THE LITTLE RABBIT WITH AN APPLE"

Sample Output : 4

21, Topic=Array

Write a program to accept the names of 10 cities in a single dimension string array and their STD (Subscribers Trunk Dialling) codes in another single dimension integer array. Search for a name of a city input by the user in the list. If found, display "Search Successful" and print the name of the city along with its STD Code, or else display the message "Search Unsuccessful , No such city in the list".

Year=2013

22, Topic=String

Write a program that encodes a word into piglatin. To translate word into a Piglatin word, convert the word into uppercase and then place the first vowel of the original word as the start of the new word along with the remaining alphabets. The alphabets present before the vowel being shifted towards the end followed by "AY".

Sample input (1): London, Sample output (1): ONDONLAY

Sample input (2): Olympics, Sample output (2) : OLYMPICSAY

Q23 Topic=Array, Out of syllabus for year 2022

Write a program to input 10 integer elements in an array and sort them in descending order using the bubble sort technique

Year=2014

24, Topic=String

Write a program to assign a full path and file name as given below. Using library functions, extract and output the file path, file name and file extension separately as shown.

Input C:\Users\admin\Pictures\flower.jpg

Output Path: C:\Users\admin\Pictures\
File name: flower
Extension: jpg

25, Topic=Array

Write a program to accept the year of graduation from school as an integer value from the user. Using the Binary Search technique on the sorted array of integers given below, Output the message "Record exists" if the value input is located in the array. If not, output the message "Record does not exist".

{1982, 1987, 1993, 1996, 1999, 2003, 2006, 2007, 2009, 2010}

Year=2015

26, Topic=String & Function Overloading

Design a class to overload a function Joystring() as follows :

(i)void Joystring(String s, char ch1, char ch2) with one string and two character arguments that replaces the character argument ch1 with the character argument ch2 in the given string s and points the new string

Example : Input value of s = "TECHNALAGY"
ch1 = 'A' , ch2 = 'O' Output : "TECHNOLOGY"

(ii)void Joystring(String s) with one string argument that prints the position of the first space and the last space of the given String s.

Example : Input: s ="They are Good"
Output: First Index : 4 Last Index : 8

(iii)void Joystring(String s1, String s2) with two string arguments that combines the two strings with a space between them and prints the resultant string

Example : Input value of s1 = "COMMON WEALTH" , s2 = "GAMES"
Output : "COMMON WEALTH GAMES"

Q27 Topic=Array, Out of syllabus for year 2022

Write a program to input twenty names in an array. Arrange these names in descending order of alphabets , using the bubble sort technique

Year=2016

28, Topic=String

Special words are those words which starts and ends with the same letter. Examples:
EXISTENCE, COMIC, WINDOW

Palindrome words are those words which read the same from left to right and viceversa.
Examples: MALAYALAM, MADAM, LEVEL, ROTATOR, CIVIC

All palindromes are special words, but all special words are not palindromes. Write a program to accept a word check and print whether the word is a palindrome or only special word.

29, Topic=Array

Write a program to initialize the Seven Wonders of the World along with their locations in two different arrays. Search for a name of the country input by the user. If found, display the name of the country along with its Wonder, otherwise display "Sorry Not Found!"

Seven wonders – CHICHEN ITZA, CHRIST THE REDEEMER, TAJMAHAL, GREAT WALL OF CHINA, MACHU PICCHU, PETRA, COLOSSEUM

Locations – MEXICO, BRAZIL, INDIA, CHINA, PERU, JORDAN, ITALY

Example – Country Name: INDIA Output: INDIA – TAJMAHAL

Country Name: USA Output: Sorry Not Found!

Year=2017

30, Topic=Array

Write a program to input integer elements into an array of size **20** and perform the following operations:

- (i) Display largest number from the array.
- (ii) Display smallest number from the array.
- (iii) Display sum of all the elements of the array.

31, Topic=String & Function Overloading

Design a class to overload a function check() as follows:

(i) void check (String str , char ch) - to find and print the frequency of a character in a string.

Example : Input: str = "success" ch = 's'
Output: number of **s** present is =3

(ii) void check(String s1) - to display only vowels from string s1, after converting it to lower case. Example :Input: s1 ="computer" Output : o u e

Q32 Topic=Array, Out of syllabus for year 2022

Write a program to input **forty** words in an array. Arrange these words in descending order of alphabets, using **selection** sort technique. Print the sorted array.

Year=2018

33, Topic=String

Write a program in Java to accept a string in lower case and change the first letter of every word to upper case. Display the new string.

Sample input: we are in cyber world

Sample output: We Are In Cyber World

34, Topic=Array

Write a program to accept name and total marks of **N** number of students in two single subscript array **name[]** and **totalmarks[]**.

Calculate and print:

(i) The average of the total marks obtained by **N** number of students.
[average = (sum of total marks of all the students)/N]

(ii) Deviation of each student's total marks with the average.
[deviation = total marks of a student – average]

Year=2019

Q35 Topic=Array, Out of syllabus for year 2022

Write a program to input **15** integer elements an array and sort them in ascending order using the **bubble** sort technique.

36, Topic=String

Write a program to input a sentence and convert it into uppercase and display the total number of words starting with a letter 'A'

Sample input: ADVANCEMENT AND APPLICATION OF INFORMATION TECHNOLOGY ARE EVER CHANGING

Sample output: Total number of words starting with letter 'A' = 4

Year=2023

Q37 Topic=Array

Define a class to perform binary search on a list of integers given below, to search for an element input by the user, if it is found display the element along with its position, otherwise display the message "Search element not found".

2, 5, 7, 10, 15, 20, 29, 30, 46, 50

38, Topic=String

Define a class to declare a character array of size ten. accept the characters into the array and display the characters with highest and lowest ASCII (American Standard Code for Information Interchange) value.

EXAMPLE : INPUT: 'R', 'z', 'q', 'A', 'N', 'p', 'm', 'U', 'Q', 'F'

OUTPUT : Character with highest ASCII value = z

Character with lowest ASCII value = A

39, Topic=Array

Define a class to declare an array of size twenty of double datatype, accept the elements into the array and perform the following : [10] Calculate and print the product of all the elements. Print the square of each element of the array

40, Topic=String

Define a class to accept a string, and print the characters with the uppercase and lowercase reversed, but all the other characters should remain the same as before.

EXAMPLE: INPUT : WelCoMe_2022

OUTPUT : wELcOmE_2022

41, Topic=Array

Define a class to declare an array to accept and store ten words. Display only those words which begin with the letter 'A' or 'a' and also end with the letter 'A' or 'a'.

EXAMPLE :

Input : Hari, Anita, Akash, Amrita, Alina, Devi Rishab, John, Farha, AMITHA

Output: Anita Amrita Alina AMITHA

42, Topic=String

Define a class to accept two strings of same length and form a new word in such a way that, the first character of the first word is followed by the first character of the second word and so on.

Example : Input string 1 – BALL

Input string 2 – WORD

OUTPUT : BWAOLRLD

Year=2024

43, Topic=Array

Define a class pin code and store the given pin codes in a single dimensional array. Sort these pin codes in ascending order using the Selection Sort technique only. Display the sorted array. 110061, 110001, 110029, 110023, 110055, 110006, 110019, 110033

- 44, Topic=String
Define a class to accept the gmail id and check for its validity. A gmail id is valid only if it has: @, ,(dot), gmail, com
Example: icse2024@gm

Specimen Papers

Year=2011 - 2012

- 37, Topic=String
Write a program to accept a sentence and print only the first letter of each word of the sentence in capital letters separated by a full stop.
Example : INPUT SENTENCE : "This is a cat"
OUTPUT : T.I.A.C.

- 38, Topic=Array
Write a program to create an array to store 10 integers and print the largest integer and the smallest integer in that array.

- 39, Topic=Array, Out of syllabus for year 2022
Write a program to store 10 names in an array. Arrange these in alphabetical order by sorting. print the sorted list. Take single word names, all in capital letters, e.g. SAMSON, AJAY, LUCY, etc.

Year=2019 - 2020

- 40, Topic=Array, Out of syllabus for year 2022
Write a program to input name and percentage of 35 students of class X in two separate one dimensional arrays. Arrange students details according to their percentage in the descending order using selection sort method. Display name and percentage of first ten toppers of the class.

- 41, Topic=String
Write a program to input a string and convert it into uppercase and print the pair of vowels and number of pair of vowels occurring in the string.
Example: Input: "BEAUTIFUL BEAUTIES "
Output : Pair of vowels: EA, AU, EA, AU, IE
No. of pair of vowels: 5

Year=2021 - 2022

- 42, Topic=Array
Define a class to declare an integer array of size n and accept the elements into the array. Search for an element input by the user using linear search technique, display the element if it is found, otherwise display the message "NO SUCH ELEMENT.

- 43, Topic=Array
Define a class to declare a character array of size **ten**, accept the character into the array and perform the following:
- Count the number of uppercase letters in the array and print.
 - Count the number of vowels in the array and print.

- 44, Topic=Array
Define a class to declare an array of size **20** of double data type, accept the elements into the array and perform the following:
- Calculate and print the sum of all the elements.
 - Calculate and print the highest value of the array.

- 45, Topic=String
Define a class to accept two strings, convert them into uppercase, check and display whether two strings are equal or not, if the two strings are not equal, print the string with the highest length or print the message both the strings are of equal length.

- 46, Topic=String
Define a class to accept a string, convert it into lowercase and check whether the string is a palindrome or not. A palindrome is a word which reads the same backward as forward.

Example: madam, racecar etc.

47, Topic=Array & String
Define a class to accept and store **10** strings into the array and print the strings with even number of characters

Year=2024

43, Topic=Array

Define a class to accept 10 characters from a user. Using bubble sort technique arrange them in ascending order. Display the sorted array and original array.

44, Topic=String

Define a class to accept a String and print the number of digits, alphabets and special characters in the string.

Example: S = "KAPILDEV@83"

Output: Number of digits – 2

Number of Alphabets – 8

Number of Special characters – 1.

45, Topic=Array

Define a class to accept values into an array of double data type of size 20. Accept a double value from user and search in the array using linear search method. If value is found display message "Found" with its position where it is present in the array. Otherwise display message "not found".

47, Topic=Array

Define a class to accept values in integer array of size 10. Find sum of one digit number and sum of two digit numbers entered. Display them separately.

Example:

Input: a[] = {2, 12, 4, 9, 18, 25, 3, 32, 20, 1}

Output: Sum of one digit numbers : $2 + 4 + 9 + 3 + 1 = 19$

Sum of two digit numbers : $12 + 18 + 25 + 32 + 20 = 107$

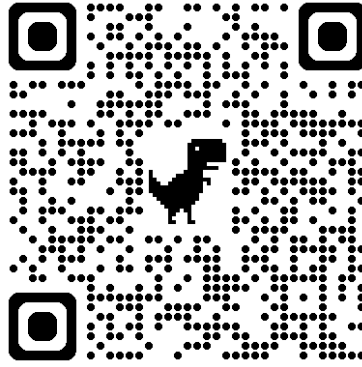


Prepare for ICSE CLASS 10
Free Resources

SCAN QR CODE Now



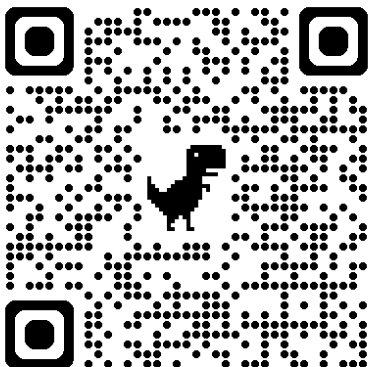
History/Civics



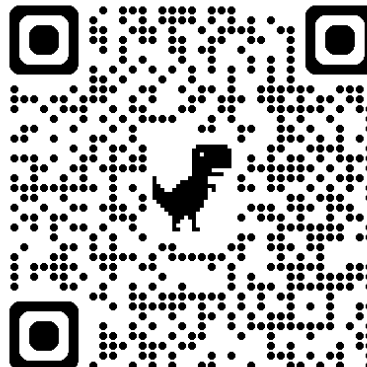
Geography



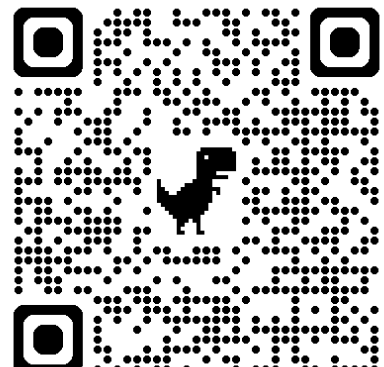
Maths



Physics



Chemistry



Biology



Hindi



Physical
Education



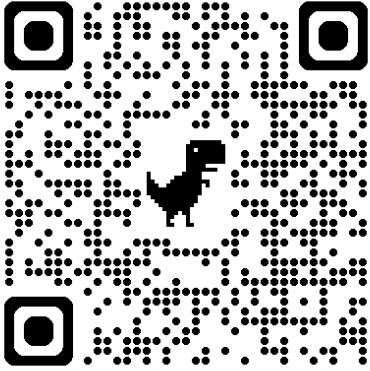
Computer
Applications





Prepare for ICSE CLASS 10
Free Resources

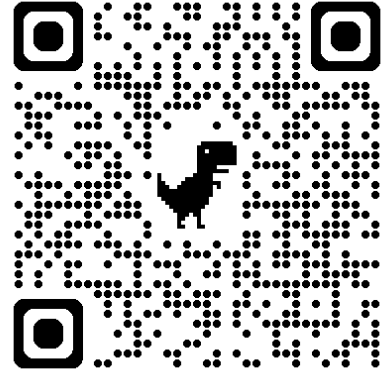
SCAN QR CODE Now



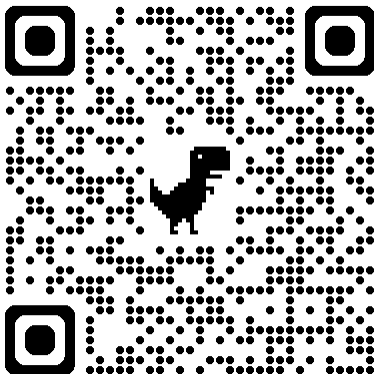
Economics



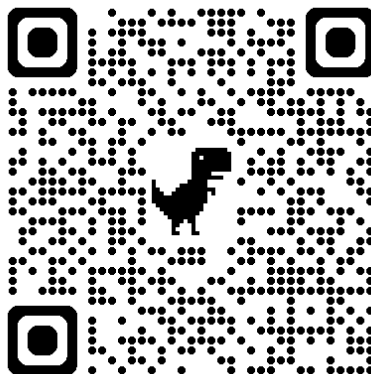
Commercial
Studies



French



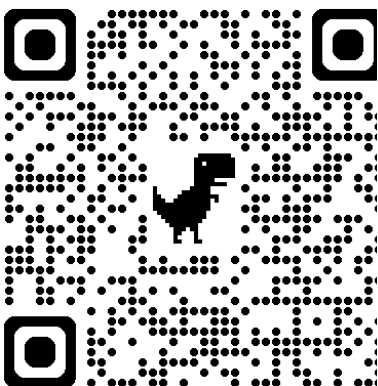
Robotics & AI



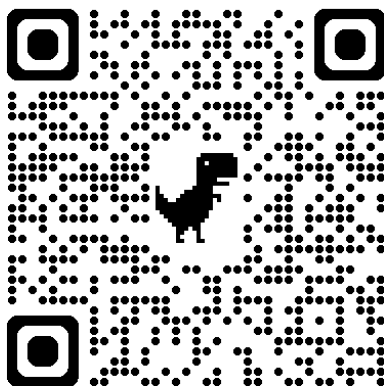
Home Science



EVS



Marathi



Gujarati



Odiya

