HOLIDAY HOMEWORK
CLASS XII
SUBJECT-ENGLISH

Instructions

1. Attempt all questions neatly and accurately
2. For question 1 prepare a project file choosing any one topic (with all sub parts) out of the given topics.
3. For question 2 prepare any 3 topics out of the given for ASL (Speaking)

Q1.

English Core (301)

Session 2021-22

Term II

Project Portfolio/Project Report

Topics List with the Tasks

General Instructions:

- *It is compulsory for all to prepare the Project file.*
- *The Internal Assessment of Term II will be in the form of Project Portfolio/Project Report and Viva. Both Project and Viva will carry 5 Marks each.*
- *The Internal Assessment of Term II will be taken by an external examiner. The Project File of yours will be checked by the external examiner. The Viva will also be taken by him/her on the same time.*
- *The Project Report is needed to be completed in 1000 words in your own handwriting.*

Project-Portfolio/ Project Report

The Project-Portfolios is a compilation of the work that the students produce during the process of working on their ALS Project. The Project-Portfolio may include the following:

PROJECT FILE

Page 1 : COVER PAGE, WITH TITLE OF PROJECT, SCHOOL DETAILS/DETAILS OF STUDENTS.

Page 2 : STATEMENT OF PURPOSE/OBJECTIVES/GOALS

Page 3 : CERTIFICATE OF COMPLETION UNDER THE GUIDANCE OF THE TEACHER.

Page 4 : ACTION PLAN FOR THE COMPLETION OF ASSIGNED TASKS.

Mid Pages : PROJECT/REPORT DETAILS(Graphics and pictures to be pasted on left hand side and content of the report to be written in your own handwriting on the right hand side of the page.

Last Page : LIST OF RESOURCES/BIBLIOGRAPHY

PROJECT TOPICS

You have to make pictorial as well as graphical presentation on left hand side of the file. All data should be collected authentically and hand written essay of 1000 words on right side.

TOPIC 1 -

The Last Lesson • Elaborate the theme of Linguistic Chauvinism and Procrastination and importance of Time Management.
• Collect data about countries where people have these tendencies.
• How do they give importance to their mother tongue?

TOPIC 2 -

The Lost Spring • Collect data about various slums in our country and living conditions there. Also elaborate whether children have access of education there.
• How children are engaged in various kinds of

TOPIC 3-
My Mother At Sixty-six • Explain the importance of parents in the family.

• On the context of the poem how do you love and care your mother?
• Collect data about condition of old age homes in our country, living condition there, number of old age homes

TOPIC 4 - Keeping Quiet • Collect reasons of environmental degradation.
• How far is man harming the Earth?
• Focus on relevance of meditation and introspection.

TOPIC 5- The Third Level • Why 'hurry and worry' are trademarks of modern men?
• How far today life is insecure? Why do modern men want to escape?
• Interview your school principal or the counselor to know the problems (stress, fear, anxiety etc.) faced by the students in the virtual platform

TOPIC 6 - • Collect all about different kinds of freedom movements of our country.
• What was the importance of Champaran Movement?
• You can write about autobiography of any freedom fighter

Q2. Prepare any 3 out of the following topics for ASL.
(a) Corruption in India
(b) Digital India
(c) Make in India
(d) India Of My Dreams
(e) Indian Tourism
(f) India : The Land of Great Personalities
(g) Poverty in India
(h) My Favourite Book
(i) Impact of Smart Phones
(j) Online Learning

SUBJECT-POLITICAL SCIENCE

ACTIVITIY 1	ACTIVITIY 2	ACTIVITIY 3	ACTIVITIY 4
All maps from political science book 1 : Chapter- 1,2 Book 2: Chapter 1,2	All cartoons from political science Book 1 : Chapter- 1,2 Book 2: Chapter 1,2	Project file and ppt as discussed in class Write at least 20 pages	Worksheet shared in class group

SUBJECT-SOCIOLOGY

ACTIVITIY 1	ACTIVITIY 2	ACTIVITIY 3	ACTIVITIY 4
Prepare a collage showing different dimensions of modernity.	Prepare a table in your notebook as guided (write any five)- 1. S.No. 2. Name of Re former 3. Their pic 4. Contribution to Society 5. Remarks	Project file as discussed in class Write at least 20 pages	Watch movie Aarakshan Or Archana IAS Or Ab Dilli Dur Nahi movie review (max 200 words)

SUBJECT-ECONOMICS

ACTIVITIY 1	ACTIVITIY 2	ACTIVITIY 3	ACTIVITIY 4

Write a news article on India : Most populous country in the world (150 words)	Comic characters chacha chaudhary and sabu debating on the economic reforms in india (1991) in conversation mode	Project file as discussed in class Write at least 20 pages + Watch movie Lagaan or Mother India Write a movie review in 200 words.	Worksheet shared in class group

SUBJECT-MUSIC

Project File:

1. Introduction of Raag Bhairav
2. Notation of Drut Khayal of Raag Bhairav
3. Introduction of Jhaptaal
4. Leykari of Jhaptaal (Thah(Ekgun),Dogun,Tigun,Chaugun).
5. Introduction of Roopak Taal
6. Leykari of Roopak Taal (Thah(Ekgun),Dogun,Tigun,Chaugun).

SUBJECT-PAINTING

- Hand made Rangoli
- Lippan art on card board.

SUBJECT-HOME SCIENCE

Project

1) Market Survey of any five processed foods, their packaging and label information.

Write the Merits and Demerits of the different packaging materials used.

2.Learn all the work done in the class.

SUBJECT-ENTREPRENEURSHIP

1. Board project file on Business plan.

SUBJECT-MAIN MATHS

Matrices and Determinants

1. If a matrix A = $[a_{ij}]$ of order 2 where $a_{ij} = 1$ if i G j and $a_{ij} = 0$ if i = j, then matrix A^4 is equal to
   (a) A (b) I (c) –A (d) None
2. If A is a square matrix such that A^2 = I, then the value of $(A - I)^3 + (A + I)^3 - 7A$
   (a) A (b) I (c) –A (d) None
3. If A = $\begin{bmatrix} 3 & -3 \\ -3 & 3 \end{bmatrix}$ and A^2 = kA, then find the value of k.
   (a) 3 (b) 9 (c) 6 (d) -6
4. If A and B are two matrices of order $3 \times m$ and $3 \times n$ respectively and $m = n$, then the orderof matrix 5A – 6B is
   (a) $3 \times m$ (b) 3×3 (c) $n \times m$ (d) None
5. If A = $\begin{bmatrix} 0 & i \\ i & 1 \end{bmatrix}$ and B = $\begin{bmatrix} 0 & 1 \\ 1 & 0 \end{bmatrix}$, then the value of $|A|$ + $|B|$ is
   (a) 1 (b) -1 (c) 0 (d) None
6. If A is a skew symmetric matrix of order 3, then the value of $|A|$ is

(a) 1 (b) -1 (c) 0 (d) None

7. If $A = \begin{bmatrix} 1 & -3 & 5 \\ 6 & 0 & 4 \\ 1 & 5 & -7 \end{bmatrix}$, then the value of $a_{11}A_{11} + a_{12}A_{12} + a_{13}A_{13}$ is

(a) 6 (b) -8 (c) 8 (d) None

8. If A is a square matrix of order 3 and $|5A| = k|A|$, then the value of k is

(a) 125 (b) 25 (c) -125 (d) None

9. If A and B are two matrices of order 3 and $|A| = 5$ and $|B| = 3$ then $|5AB|$ is equal to:

(a) 1675 (b) 1775 (c) 1875 (d) None

10. If A is a square matrix of order 2 with $|A| = 5$, then $|2adjA|$ is equal to:

(a)25 (b) -20 (c) 20 (d) None

11. For what values of x, the matrix $A = \begin{bmatrix} 5-x & x+1 \\ 2 & 4 \end{bmatrix}$

(i) singular or A^{-1} does not exist.

(ii) non singular or A^{-1} exists.

12. If $A = \begin{bmatrix} -2 & 0 & 0 \\ 0 & -2 & 0 \\ 0 & 0 & -2 \end{bmatrix}$, then value of $|adjA|$ and $|A.adjA|$.

13. If A is a matrix of order 3×3 where $A = [a_{ij}]$, then find matrix if

$$[a_{ij}] = \begin{cases} i + j & \text{if } i < j \\ i - j & \text{if } i = j \\ \frac{i}{j} & \text{if } i > j \end{cases}$$

14. If a matrix A is both symmetric and skew symmetric, then find the value of $|A|$.

15. If A is an invertible matrix of order 2×2 and $|A| = 7$, then find the value of $|A^{-1}|$ and $|-A^{-1}|$.

16. If A is non singular matrix of order 3 and $|A|=5$, then find the value of $|AA^{-1}|$.

17. Find the value of $x + 2y - z$ from the following equations by using matrix method:

$x + y + z = 9$

$x + z = 5$

$y + z = 7$

18. Find matrix A if $\begin{bmatrix} 2 & -1 \\ 1 & 0 \\ -3 & 4 \end{bmatrix} A = \begin{bmatrix} -1 & -8 \\ 1 & -2 \\ 9 & 22 \end{bmatrix}$.

19. If $A = \begin{bmatrix} 1 & -1 & 2 \\ 3 & 4 & -5 \\ 2 & -1 & 3 \end{bmatrix}$, find A^{-1} and solve the following equations by using A^{-1}:

$x - y + 2z = 7,\ 3x + 4y - 5z = -5,\ 2x - y + 3z = 12.$

20. Solve the following equations using matrix method:

$$\frac{1}{x} - \frac{1}{y} + \frac{2}{z} = 7$$
$$\frac{3}{x} + \frac{4}{y} - \frac{5}{z} = -5$$
$$\frac{2}{x} - \frac{1}{y} + \frac{3}{z} = 12$$

21. If $A = \begin{bmatrix} 1 & -1 & 0 \\ 2 & 3 & 4 \\ 0 & 1 & 2 \end{bmatrix}$ and $B = \begin{bmatrix} 2 & 2 & -4 \\ -4 & 2 & -4 \\ 2 & -1 & 5 \end{bmatrix}$, find the product AB and use the product to solve the following equations:

$y + 2z = 7$

$x - y = 3$

$2x + 3y + 4z = 17$

22. If $A^{-1} = \begin{bmatrix} 3 & -1 & 1 \\ -15 & 6 & -5 \\ 5 & -2 & 2 \end{bmatrix}$ and $B = \begin{bmatrix} 1 & 2 & -2 \\ -1 & 3 & 0 \\ 0 & -2 & 1 \end{bmatrix}$, find $(AB)^{-1}$.

23. If $A = \begin{bmatrix} -3 & -2 & -4 \\ 2 & 1 & 2 \\ 2 & 1 & 3 \end{bmatrix}$ and $B = \begin{bmatrix} 1 & 2 & 0 \\ -2 & -1 & -2 \\ 0 & -1 & 1 \end{bmatrix}$, then find AB and use it to solve the following equations:

$x - 2y = 3$

$2x - y - z = 2$

$-2y + z = 3$

24. If (a, b), (c, d) and (e, f) are the vertices of ΔABC and Δ denotes the area of ΔABC, then $\begin{vmatrix} a & c & e \\ b & d & f \\ 1 & 1 & 1 \end{vmatrix}^2$ is equal to:

25. If $\begin{bmatrix} 2 & 0 \\ 5 & 4 \end{bmatrix}$ = P + Q, where P is a symmetric and Q is a skew symmetric matrix, then P and Q equal to:

26. If $|A| = |kA|$, where A is a square matrix of order 2, then find the sum of all possible values of k.

27. If $f(\alpha) = \begin{bmatrix} cos\alpha & -sin\alpha & 0 \\ sin\alpha & cos\alpha & 0 \\ 0 & 0 & 1 \end{bmatrix}$, prove that $f(\alpha).f(-\beta) = f(\alpha - \beta)$.

28. If $A = \begin{bmatrix} cos\alpha & -sin\alpha \\ sin\alpha & cos\alpha \end{bmatrix}$ and $A + A' = I$, then find the value of α.

29. If A is a matrix of order 3 with each entry 0 or 1, then find

i) Number of such matrices.

ii) Number of such symmetric matrices.

iii) Number of such skew symmetric matrices.

iv) Number of such matrices which are neither symmetric nor skew symmetric.

30. If A is a matrix of order 3 with each entry 1 or -1, then find

i) Number of such matrices.
ii) Number of such symmetric matrices.
iii) Number of such skew symmetric matrices.
iv) Number of such matrices which are neither symmetric nor skew symmetric.

Vectors and 3-Dimensional Geometry

1. Find a vector whose magnitude is 7 units in the direction of vector $\vec{a} = \hat{\imath} - 2\hat{\jmath}$.
   (a) $\frac{1}{\sqrt{5}}(7\hat{\imath} - 14\hat{\jmath})$ (b) $(7\hat{\imath} - 14\hat{\jmath})$ (c) $^{-1}(7\hat{\imath} - 14\hat{\jmath})$ (d) None
   $\sqrt{5}$

2. Find the direction cosine of the vector $\vec{a} = \hat{\imath} + \hat{\jmath} + \hat{k}$.
   (a) (1, 1, 1) (b) $(\frac{1}{\sqrt{3}}, \frac{1}{\sqrt{3}}, \frac{1}{\sqrt{3}})$ (c) $\pm(\frac{1}{\sqrt{3}}, \frac{1}{\sqrt{3}}, \frac{1}{\sqrt{3}})$ (d) None

3. If point P and Q with position vectors $\vec{OP} = 3\vec{a} - 2\vec{b}$ and $\vec{OQ} = \vec{a} + \vec{b}$, then find the position vector of R which divides the line joining P and Q in the ratio 2 :1 internally.
   (a) $\frac{\vec{a}}{3}$ (b) $\frac{2\vec{a}}{3}$ (c) $\frac{5\vec{a}}{3}$ (d) None

4. Find the projection of the vector $\vec{a} = 2\hat{\imath} + 3\hat{\jmath} + 2\hat{k}$ on the vector $\vec{b} = \hat{\imath} + 2\hat{\jmath} + \hat{k}$.
   (a) $5\sqrt{6}$ (b) $3\sqrt{6}$ (c) $\sqrt{6}$ (d) None
5. If two vectors $\vec{a}$ and $\vec{b}$ are such that $|\vec{a}| = 2$, $|\vec{b}| = 3$ and $\vec{a}.\vec{b} = 4$, then find $|a - b|$.
   (a) $\sqrt{3}$ (b) $\sqrt{5}$ (c) 5 (d) None
6. If $|\vec{a}| = \sqrt{3}$, $|\vec{b}| = 2$ and $\vec{a}.\vec{b} = \sqrt{6}$, then find the angle between $\vec{a}$ and $\vec{b}$.
7. Let $\vec{a}$ and $\vec{b}$ be two unit vectors and θ be the angle between them. If $\vec{a} + \vec{b}$ is a unit vector then find angle θ.
8. If a line makes angle 90^0, 60^0 and 30^0 with positive direction of x, y and z axis then find direction cosine of that line.
9. Find the value of p for which the vector $3\hat{\imath} + 2\hat{\jmath} + 9\hat{k}$ and $\hat{\imath} - 2\hat{\jmath} + 3\hat{k}$ are
10. Find the shortest distance of the lines whose vectors equations are
    $\vec{r} = (\hat{\imath} + \hat{\jmath}) + (2\hat{\imath} - \hat{\jmath} + \hat{k})$ and $\vec{r} = (2\hat{\imath} - \hat{\jmath} + \hat{k}) + (3\hat{\imath} - 5\hat{\jmath} + 2\hat{k})$
11. Find the vector equation of the line passing through the point (1, 2, -4) and perpendicular to the lines $\frac{x-8}{3} = \frac{y+19}{-16} = \frac{z-10}{7}$ and $\frac{x-15}{3} = \frac{y-29}{8} = \frac{z-5}{-5}$
12. Show that the lines $\frac{x+1}{3} = \frac{y+3}{5} = \frac{z+5}{7}$ and $\frac{x-2}{1} = \frac{y-4}{3} = \frac{z-6}{5}$ intersect. Also find the intersection point.
13. Find the image of the point P(1, 6, 3) on the line $\frac{x}{1} = \frac{y-1}{2} = \frac{z-2}{3}$. Also find the distance of foot and point P.
14. The Cartesian equation of line is $6x - 2 = 3y + 1 = 2z - 2$, then find direction ratio of parallel vector $\vec{b}$ and also find the equation of line parallel to this line and passing through the point (2, -1, -1).
15. If $\hat{a}, \hat{b}, \hat{c}$ are mutually perpendicular unit vectors then find the value of $|2\hat{a} + \hat{b} + \hat{c}|$.
16. Write a unit vector perpendicular to both the vectors $\vec{a} = \hat{\imath} + \hat{\jmath} + \hat{k}$ and $\vec{b} = \hat{\imath} + \hat{\jmath}$.
17. If $\vec{r} = x\hat{\imath} + y\hat{\jmath} + z\hat{k}$, then find $(\vec{r} \times \hat{\imath}).(\vec{r} \times \hat{\jmath}) + xy$.
18. Find value of p for which the vectors $3\hat{\imath} + 2\hat{\jmath} + 9\hat{k}$ and $\hat{\imath} - 2p\hat{\jmath} + 3\hat{k}$ are parallel.
19. Vectors $\vec{a}, \vec{b}$ and $\vec{c}$ are such that $\vec{a} + \vec{b} + \vec{c} = 0$ and $|\vec{a}| = 3, |\vec{b}| = 5, |\vec{c}| = 7$, then find the

angle between $\vec{a}$ and $\vec{b}$.

20. Let $\vec{a} = \hat{\imath} + 4\hat{\jmath} + 2\hat{k}, \vec{b} = 3\hat{\imath} - 2\hat{\jmath} + 7\hat{k}$ and $\vec{c} = 2\hat{\imath} - \hat{\jmath} + 4\hat{k}$ are three vectors. Find a vector $\vec{p}$ which is perpendicular to both $\vec{a}$ and $\vec{b}$ and $\vec{p}.\vec{c} = 18$.

21. Prove that $|\vec{a} \times \vec{b}|^2 = \begin{vmatrix} \vec{a}.\vec{a} & \vec{a}.\vec{b} \\ \vec{a}.\vec{b} & \vec{b}.\vec{b} \end{vmatrix}$.
22. If $\hat{a}$ and $\hat{b}$ are unit vectors and θ be the angle between them, then prove that $\sin\frac{\theta}{2} = \frac{1}{2}|\hat{a} - \hat{b}|$.
23. If $\vec{a}, \vec{b}$ and $\vec{c}$ are three non zero unequal vectors such that $\vec{a}.\vec{b} = \vec{a}.\vec{c}$, then find the angle between $\vec{a}$ and $\vec{b} - \vec{c}$.
24. Find the equation of the diagonals of the parallelogram PQRS whose vertices are P(4, 2, -6) , Q(5, -3, 1), R(12, 4, 5) and S(11,9, -2). Use these equations to find the point of intersection ofdiagonals.
25. A line l passes through point (-1, 3, -2) and is perpendicular to both the lines $\frac{x}{1} = \frac{y}{2} = \frac{z}{3}$ and $\frac{x+2}{-3} = \frac{y-1}{2} = \frac{z+1}{5}$ Find the vector equation of the line l. Hence obtain its distance from origin.

<u>Note:-</u> Write all the trigonometric formulas of Class XI in your class notebook and also learn them.

SUBJECT-APPLIED MATHS

1. If a matrix A = $[a_{ij}]$ of order 2 where $a_{ij} = 1$ if i G j and $a_{ij} = 0$ if i = j, then find the value of A^3 and A^4.
2. If A is a square matrix such that A^2 = I, then find the value of $(A - I)^3 + (A + I)^3 - 7A$.
3. A matrix of order 3×3 where A = $[a_{ij}]$, then find matrix if
$$[a_{ij}] = \begin{cases} i + j & \text{if } i < j \\ i - j & \text{if } i = j \\ \frac{i}{j} & \text{if } i > j \end{cases}$$
4. If A = $\begin{bmatrix} 3 & -3 \\ -3 & 3 \end{bmatrix}$ and A^2 = kA, then find the value of k.
5. If A and B are two matrices of order $3 \times m$ and $3 \times n$ respectively and $m = n$, then find the order of matrix 5A – 6B.
6. If A is a skew symmetric matrix of order 3, then find the value of $|A|$.
7. If A = $\begin{bmatrix} 1 & -3 & 5 \\ 6 & 0 & 4 \\ 1 & 5 & -7 \end{bmatrix}$, then find the value of $a_{11}A_{11} + a_{12}A_{12} + a_{13}A_{13}$.
8. If A is a square matrix of order 3 and $|5A|$= k$|A|$. Find the value of k.
9. If A and B are two matrices of order 3 and $|A|$ = 5 and $|B|$ = 3 then find the value of $|AB|$ and$|5AB|$.
10. For what values of x, the matrix A = $\begin{bmatrix} 5 - x & x + 1 \\ 2 & 4 \end{bmatrix}$
    (i) singular or A^{-1} does not exist.
    (ii) non singular or A^{-1} exists.
11. If A is a square matrix of order 2 with $|A|$ = 5, then find the value of $|adjA|$, $|A.adjA|$ and $|2.adjA|$
$$\begin{bmatrix} -2 & 0 & 0 \end{bmatrix}$$

12. If $A = \begin{bmatrix} 0 & -2 & 0 \\ 0 & 0 & -2 \end{bmatrix}$, then value of $|adjA|$ and $|A.adjA|$.
13. If a matrix A is both symmetric and skew symmetric, then find the value of $|A|$.
14. If A is an invertible matrix of order 2×2 and $|A| = 7$, then find the value of $|A^{-1}|$ and $|-A^{-1}|$.
15. Find matrix A if $\begin{bmatrix} 1 & 0 \\ -3 & 4 \end{bmatrix} A = \begin{bmatrix} 1 & -2 \\ 9 & 22 \end{bmatrix}$.
16. If $A = \begin{bmatrix} 1 & -1 & 2 \\ 3 & 4 & -5 \\ 2 & -1 & 3 \end{bmatrix}$, find A^{-1} and solve the following equations by using A^{-1}:
$x - y + 2z = 7,\ 3x + 4y - 5z = -5,\ 2x - y + 3z = 12.$

17. Solve the following equations using matrix method:
$$\frac{1}{x} - \frac{1}{y} + \frac{2}{z} = 7$$
$$\frac{3}{x} + \frac{4}{y} - \frac{5}{z} = -5$$
$$\frac{2}{x} - \frac{1}{y} + \frac{3}{z} = 12$$

$$\begin{matrix}1 & -1 & 0\\ 0 & 1 & 2\end{matrix}$$

18. If A = $\begin{bmatrix}2 & 3 & 4\end{bmatrix}$ and B = $\begin{bmatrix}-4 & 2 & -4\\ 2 & -1 & 5\end{bmatrix}$, find the product AB and use the product to solve the following equations:

$x - y = 3$

$2x + 3y + 4z = 17$

$y + 2z = 7$

$$\begin{matrix}3 & -1 & 1\\ -15 & 6 & -5\\ 5 & -2 & 2\end{matrix}$$

19. If A^{-1} = $\begin{bmatrix}1 & 2 & -2\\ -1 & 3 & 0\\ 0 & -2 & 1\end{bmatrix}$ and B = $\begin{bmatrix}-3 & -2 & -4\\ 1 & 2 & 0\end{bmatrix}$, find $(AB)^{-1}$.

20. If A= $\begin{bmatrix} 2 & 1 & 2 \\ 2 & 1 & 3 \end{bmatrix}$ and B = $\begin{bmatrix} -2 & -1 & -2 \\ 0 & -1 & 1 \end{bmatrix}$, then find AB and use it to solve the following equations:
$x - 2y = 3$
$2x - y - z = 2$
$-2y + z = 3$
21. If $|A| = |kA|$, where A is a square matrix of order 2, then find the sum of all possible values ofk.
22. Solve the following equations by Cramer's Rule:
$x - y + 2z = 7$, $3x + 4y - 5z = -5$, $2x - y + 3z = 12$.
23. If A is a matrix of order 3 with each entry 0 or 1, then find
    i) Number of such matrices.
    ii) Number of such symmetric matrices.
24. If A is a matrix of order 3 with each entry 1 or -1, then find
    i) Number of such matrices.
    ii) Number of such symmetric matrices.
25. Find the present value of a sequence of payments of 60 made at the end of each 6 months and continuing forever, if money is worth 4% compounded semi-annually?
26. How much money is needed to endure a series of lectures costing 2500 at the beginningof each year indefinitely, if money is worth 3% compounded annually?
27. A company establishes sinking fund to provide for the payment of Rs. 1,00,000 debt maturing in 4 years. Contributions to the fund are to be made at the end of every year.Find the amount of each annual deposit if interest is 18% per annum.
28. In 10 years, a machine costing 40,000 will have a salvage value of 4,000. A New Machine at that time is expected to sell for 52,000. In order to provide funds for the difference between the replacement cost and the salvage cost, a sinking fund is set up into which equal payments are placed at the end of each year. If the fund earns interest at the rate 7% compounded annually, how much should each payment be?
29. Mr. X takes a loan of Rs. 2, 00,000 with 10% annual interest rate for 5 years. CalculateEMI under Flat Rate system.

30. A couple wishes to purchase a house for Rs. 12, 00,000 with a down payment of Rs. 2, 50,000. If they can amortize the balance at 9% per annum compounded monthly for 20 years, find (i) What is their each monthly payment (ii) What is the total interest paid.