CLASS : 7 2nd MID TERM PORTIONS AND PATTERNS

MATHEMATICS

Number System		Measurements
I.	Choose the correct answer	10 x 1 = 10
II.	Match the following	5 x 1 = 5
III.	Do as directed	10 x 2 = 20
IV.	Do as directed	3 x 5 = 15
	Total	50 marks

SCIENCE

Heat and Temperature		Changes Arround Us	Functional Units of Life
I.	Choose the correct answer		10 x 1 = 10
II.	Short Answers: (pick out, spot the error, assertion and reasoning, who am i?)		7 x 2 = 14
III.	Match the following		5 x 1 = 5
IV.	Answer in brief (diagram, dishtinguish, problems, Q and A)		4 x 4 = 16
V.	Answer the detail		2 x 5 = 10
		Total	50 marks

SOCIAL STUDIES

HISTORY		GEOGRAPHY
The Vijayanagar and Bahmani Kingdoms		Classification of Resources
I.	Choose the correct answer	5 x 1 = 5
II.	Fill in the blanks	5 x 1 = 5
III.	Match the following	5 x 1 = 5
IV.	Answer in a word or two	4 x 1 = 4
V.	Distinguish between	2 x 3 = 6
VI.	Answer the following briefly	5 x 3 = 15
VII.	Answer in detail	2 x 5 = 10
	Total	50 marks

EXPRESSIONS IN ENGLISH

Theo's Tobogganing Triumph		Hard is the Journey	Passepartout in Japan
I.	Write the meanings and opposites of the given words.		6 x ½ = 3
II.	Write prefixes to make opposites.		6 x ½ = 3
III.	India has won the World Cup! Write two ways of response.		2 x 1 = 2
IV.	Fill in the blanks with prepositions		4 x ½ = 2
V.	Change the following adjectives into the degree indicated.		5 x 1 = 5
VI.	Write a short paragraph about your favourite field game.		4 x 1 = 4
VII.	Write one word each with one, two, and three syllables		3 x 1 = 3
VIII.	Break the given words into syllables.		3 x 1 = 3
IX.	Answer the following in two sentences.		5 x 1 = 5
X.	Who said this to whom and why was it said.		5 x 1 = 5
XI.	Answer the following.		5 x 3 = 15
		Total	50 marks

Class: 7 KEY ANSWERS TERM : II

Chapter - 1 Numbers System

Page No. 2 and 3

Exercise: 1.1

1. a) $\frac{3}{6} = \frac{1}{2} = 0.5$ b) $\frac{7}{10} = 0.7$

c) $\frac{2}{5} = 0.4$

2.

S.No	Fraction	Decimal Form
i)	$\frac{4}{5}$	0.8
ii)	$\frac{6}{10}$	0.6
iii)	$\frac{8}{16}$	0.5
iv)	$\frac{9}{10}$	0.9
v)	$\frac{6}{30}$	0.2

S.No	Decimal Form	Fraction
i)	0.4	$\frac{4}{10} = \frac{2}{5}$
ii)	0.1	$\frac{1}{10}$
iii)	0.7	$\frac{7}{10}$
iv)	0.3	$\frac{3}{10}$
v)	0.2	$\frac{2}{10} = \frac{1}{5}$

Page No. 4 and 5

Exercise: 1.2

1. a) $69.85 = 60 + 9 + \frac{8}{10} + \frac{5}{100} = 6 \times 10 + 9 \times 1 + 8 \times \frac{1}{10} + 5 \times \frac{1}{100}$

Place value					
69.85	Hundreds	Tens	Ones	Tenths	Hundredths
	0	6	9	8	5

b) $314.57 = 300 + 10 + 4 + \frac{5}{10} + \frac{7}{100} = 3 \times 100 + 1 \times 10 + 4 \times 1 + 5 \times \frac{1}{10} + 7 \times \frac{1}{100}$

Place value					
314.57	Hundreds	Tens	Ones	Tenths	Hundredths
	3	1	4	5	7

c) $291.43 = 200 + 90 + 1 + \frac{4}{10} + \frac{3}{100}$

$= 2 \times 100 + 9 \times 10 + 1 \times 1 + 4 \times \frac{1}{10} + 3 \times \frac{1}{100}$

Place value					
291.43	Hundreds	Tens	Ones	Tenths	Hundredths
	2	9	1	4	3

d) $721.06 = 700 + 20 + 1 + \frac{6}{100}$

$= 7 \times 100 + 2 \times 10 + 1 \times 1 + 0 \times \frac{1}{10} + 6 \times \frac{1}{100}$

Place value					
721.06	Hundreds	Tens	Ones	Tenths	Hundredths
	7	2	1	0	6

e) $801.24 = 800 + 1 + \frac{2}{10} + \frac{4}{100}$

$= 8 \times 100 + 0 \times 10 + 1 \times 1 + 2 \times \frac{1}{10} + 4 \times \frac{1}{100}$

Place value					
801.24	Hundreds	Tens	Ones	Tenths	Hundredths
	8	0	1	2	4

2.

S.No.	Measurements	In metre	In Decimal Form
1.	5 m 74 cm	5 and 74 hundredths of a metre	5.74
2.	2 m 91 cm	2 and 91 hundredths of a metre	2.91
3.	38 m 62 cm	38 and 62 hundredths of a metre	38.62
4.	86 cm	86 hundredths of a metre	0.86
5.	49 m 30 cm	49 and 3 tenths of a metre (or) 30 hundredths of a metre	49.3 (or) 49.30
6.	157m 9 cm	157 and 9 hundredths of a metre	157.09

3. a)

Place value					
41.92	Hundreds	Tens	Ones	Tenths	Hundredths
	0	4	1	9	2

b)

Place value					
235.08	Hundreds	Tens	Ones	Tenths	Hundredths
	2	3	5	0	8

c)

Place value					
0.75	Hundreds	Tens	Ones	Tenths	Hundredths
	0	0	0	7	5

d)

Place value					
60.61	Hundreds	Tens	Ones	Tenths	Hundredths
	0	6	0	6	1

e)

Place value						
310.341	Hundreds	Tens	Ones	Tenths	Hundredths	Thousandths
	3	1	0	3	4	1

4. a) 0.65 m b) 0.09 m c) 13.17 m
d) 17.03 m e) 10.01 m

Page No. 7

Exercise: 1.3

1. a) 0.4 cm b) 9.8 cm c) 7.5 cm
d) 61.2 cm e) 3 cm

2. a) 0.32 m b) 0.08 m c) 0.87 m
d) 9.04 m e) 3.57 m

3. a) $56.4 = 50 + 6 + \frac{4}{10}$

b) $391.17 = 300 + 90 + 1 + \frac{1}{10} + \frac{7}{100}$

c) $815.5 = 800 + 10 + 5 + \frac{5}{10}$

d) $204.973 = 200 + 4 + \frac{9}{10} + \frac{7}{100} + \frac{3}{1000}$

e) $1357.852 = 1000 + 300 + 50 + 7 + \frac{8}{10} + \frac{5}{100} + \frac{2}{1000}$

4. a)

Tens	Ones	Tenths	Hundredths
1	6	4	5

b)

Tens	Ones	Tenths	Hundredths
9	7	3	2

c)

Hundreds	Tens	Ones	Tenths	Hundredths	Thousandths
6	5	4	7	1	8

d)

Hundreds	Tens	Ones	Tenths	Hundredths	Thousandths
2	0	2	2	0	9

e)

Ones	Tenths	Hundredths	Thousandths
8	9	3	8

5. i) (d) ii) (b) iii) (c)
iv) (a) v) (b)

Page No. 9

Exercise: 1.4

1. a) 0.051 b) 0.112 c) 0.48
d) 75.6 e) 0.04 f) 0.14
g) 0.005 h) 0.06 i) 0.75
j) 0.05

2. a) $\frac{536479}{1000}$ b) $\frac{423086}{1000}$ c) $\frac{237204}{1000}$

3. a) $\frac{8}{1000} = \frac{1}{125}$ b) $\frac{2}{10000} = \frac{1}{5000}$

c) $\frac{948}{100} = \frac{237}{25}$

Page No. 11 and 12

Exercise: 1.5

1. a)

Hundreds	Tens	Ones	Tenths	Hundredths	Thousandths
9	8	5	0	0	3

b)

Hundreds	Tens	Ones	Tenths	Hundredths	Thousandths
0	1	8	5	6	0

c)

Hundreds	Tens	Ones	Tenths	Hundredths	Thousandths
1	0	5	1	9	4

d)

Hundreds	Tens	Ones	Tenths	Hundredths	Thousandths
0	0	0	0	8	7

e)

Hundreds	Tens	Ones	Tenths	Hundredths	Thousandths
0	1	0	1	0	1

2. a) 43.247 b) 9.108 c) 50.006
d) 236.09 e) 0.135 f) 7.004
g) 4.091

3. Fill in the table below:

S.No.	Decimal Form	Hundreds (100)	Tens (10)	Ones (1)	Tenths $\frac{1}{10}$	Hundredths $\frac{1}{100}$	Thousandths $\frac{1}{1000}$
1.	607.981	6	0	7	9	8	1
2.	720.304	7	2	0	3	0	4
3.	100.001	1	0	0	0	0	1
4.	5.09	0	0	5	0	9	0
5.	111.1	1	1	1	1	0	0
6.	506.798	5	0	6	7	9	8
7.	821.043	8	2	1	0	4	3
8.	42.605	0	4	2	6	0	5
9.	304.007	3	0	4	0	0	7
10.	660.66	6	6	0	6	6	0
11.	123.9	1	2	3	9	0	0
12.	78.03	0	7	8	0	3	0

4. a) 0.6 b) 7.5 c) 3.5
d) 4.6 e) 0.8 f) 0.55
g) 0.84 h) 9.64 i) 8.005
j) 10.06 k) 25.25 l) 17.05
m) 34.75 n) 11.26 o) 12.068

5. a) $\frac{3}{5}$ b) $\frac{16}{5}$ c) $\frac{17}{5}$
d) $\frac{3}{4}$ e) $\frac{3}{10}$ f) $\frac{7}{20}$
g) $\frac{29}{20}$ h) $\frac{6}{25}$ i) $\frac{41}{4}$
j) $\frac{9}{100}$ k) $\frac{213}{50}$ l) $\frac{79}{25}$

Page No. 15

Exercise: 1.6

1. a) 7.02 b) 24.79 c) 6.14
d) 0.97 e) 4.03 f) 0.999
g) 0.001 h) 0.08

2. a) 513.21 b) 0.05 c) 6.494
d) 1.95 e) 7.83 f) 0.191
g) 0.191 h) 23.8

3. a) 2.68, 2.86, 6.28, 6.82, 8.26, 8.62
b) 417.29, 472.1, 472.19, 472.9, 472.91, 479.12, 479. 21

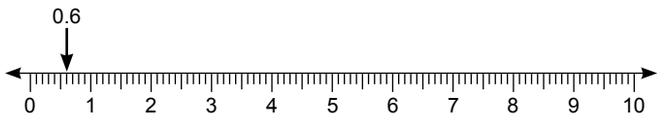
4. a) 53.27, 35.72, 35.7, 35.27, 32.75, 32.5, 32.05, 27.53, 23.57
b) 851.34, 851.3, 815.43, 815.34, 581.3, 518.43, 518.04, 185.3, 158.43

5. a) 54.31 > 54.3 b) 0.006 = 0.00600
c) 75.5 = 75.50 d) 10.01 < 10.1
e) 212.01 > 212.001

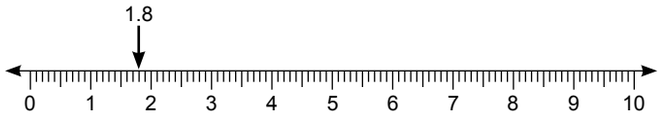
Page No. 16 - 18

Exercise: 1.7

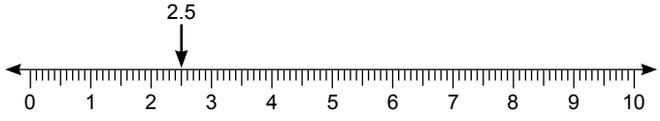
1. a)



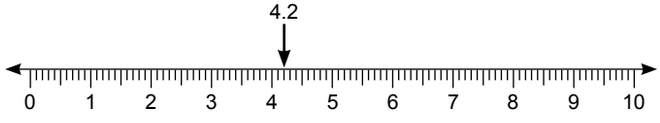
b)



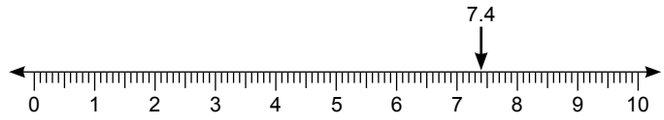
c)



d)



e)



2. Sample answers: 4.1, 4.2, …….4.8, 4.9

3. Sample answers: 5.1, 5.2, …….5.8, 5.9

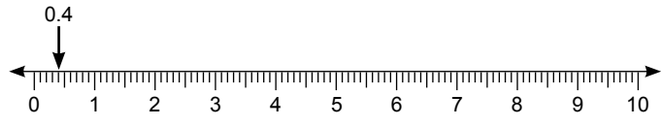
4. i) (b) ii) (d)

5. a) 0.8 lies between 0 and 1.
b) 9.9 lies between 9 and 10.
c) 4.3 lies between 4 and 5.
d) 1.6 lies between 1 and 2.
e) 7.5 lies between 7 and 8.
f) 3.4 lies between 3 and 4.

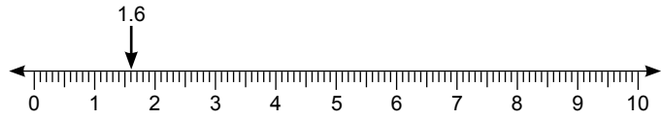
6. Point A represents 2.7, Point B represents 5.9,

Point C represents 8.3, Point D represents 3.1.

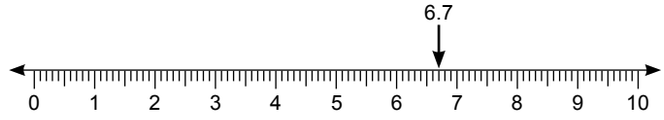
7. a)



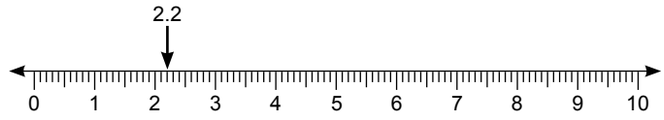
b)



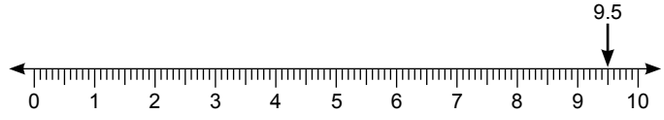
(c)



d)



e)



8. a)

Place value					
581.69	Hundreds	Tens	Ones	Tenths	Hundredths
	5	8	1	6	9

b)

Place value						
380.702	Hundreds	Tens	Ones	Tenths	Hundredths	Thousandths
	3	8	0	7	0	2

9. a) 90.207 b) 605.48

10. a) Seven point Five Two Eight

b) Four Hundred Sixteen point Zero/Four Hundred Sixteen

c) Zero point Three/Point Three 0.3

d) Sixty Nine point Four One

11. a) 0.9 b) 0.8 c) 0.35
d) 0.0078 e) 1.4 f) 1.65
g) 0.032 h) 0.02

12. a) $\frac{15}{2}$ b) $\frac{256}{5}$ c) $\frac{68709}{1000}$
d) $\frac{1}{4}$ e) $\frac{19}{8}$

13. a) 0.578 kg b) 8.013 kg c) 0.042 kg
d) 9.31 kg e) 12.345 kg

14. a) 0.24 m b) 7.09 m c) 11 m
d) 67.7 m e) 31.85 m

15. a) 7.003 m b) 0.073 m c) 0.703 m
d) 0.007 m e) 3.07 m

16. a) 0.03 km b) 0.415 km c) 6 km
d) 0.005 km e) 4.189 km

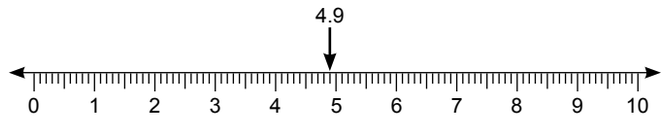
17. a) ₹358.60 b) ₹385.95 c) 7.6 m
d) 1.05 m e) 43.7 km

18. a) 0.3 g b) 0.94 m c) 1.25 lit

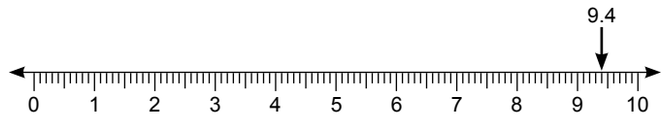
19. a) 0.3 lies between 0 and 1
b) 6.9 lies between 6 and 7
c) 5.7 lies between 5 and 6
d) 1.2 lies between 1 and 2

20.

a)



b)



21. Point J represents 5.5, Point K represents 3.5,
Point L represents 7.1, Point M represents 0.2, Point N represents 9.9

Chapter - 2 Measurements

Page No. 26 and 27

Exercise: 2.1

1.

	Radius	Diameter	Circumference
a	1.4 cm	2.8 cm	8.8 cm
b	4.9 cm	9.8 cm	30.8 cm
c	3.15 m	6.3 m	19.8 m
d	21 m	42 m	132 m
e	0.7 cm	1.4 cm	4.4cm

2. 968 m

3. a) 1.32m, b) 396m

4. a) r = 14 cm, Cir =88cm
b) r = 3.5 cm, Cir = 22 cm

5. 44 cm

6. 80.52 cm

7. 76 cm

8. 2 designs, 5.8 cm of wire left over

Objective type

1. a **3.** c **5.** a
2. b **4.** a **6.** b

Page No. 32 and 33

Exercise: 2.2

1. a) 1386 cm^2 b) 346.5 m^2

2. a) 1.54 cm^2 b) 616 cm^2

3. 22,176 cm^2

4. 88 cm

5. C = 22cm, area = 30.25 cm^2

6. 622.5 cm^2

7. 308 cm^2, 176 cm

8. 10.5 cm^2, 25 cm

9. 16:25

10. 126 cm^2, 84 cm

11. ₹98470

12. 42 cm^2

Objective type

1. c **2.** b **3.** a **4.** c **5.** d

Page No. 37 – 39

Exercise: 2.3

1. 15 cm, 1.5cm

2. Area at 8.03 is 256 cm^2. Therefore the increase is 156cm^2.

3. 14π cm

4. 1:3:5

5. 103.62 cm^2

6. 221.76 m^2, ₹12196.80

7. 1386 cm^2

8. 2144

9. 322.56 m^2, 61.44 m^2

10. 3136m^2, 10.20m^2

Miscellaneous

1. 32 m, ₹10400

2. 616m^2, 14m, ₹1760

3. 2016 m^2, 176 m

4. 117.25 m^2

5. a. 1.32m, b. 132m

6. 134cm^2

7. 115.5 cm^2, 47 cm

8. 73.92 m^2

Chapter - 3 Algebra

Try these out Page 43

Number	Expanded Form	Exponential Form	Base	Exponent
6561	9 × 9 × 9 × 9	9^4	9	4
1331	11 × 11 × 11	11^3	11	3
512	8 × 8 × 8	8^3	8	3
3125	5 × 5 × 5 × 5 × 5	5^5	5	5
–343	(–7) × (–7) × (–7)	(–7)3	(–7)	3
169	13 × 13	13^2	13	2

Page No: 53 – 55

Exercise: 3.1

1. a) 87, 9

b) $w \times w \times w \times t \times t \times t \times t \times t \times t \times t$

c) 54 raised to the power of 18 or 54 to the power of 18 or 54 power 18

d) 99^{33} e) 2 f) 3 g) 1 h) 101

2. i) (b) ii) (a) iii) (d) iv) (d) v) (c) vi) c) vii) b) viii) a) ix) d) x) (a) xi) (a) xii) a)

3. a) False b) True c) False d) True e) False f) False

4. a) 47^5 b) z^3 c) $19^2 \times 91^3$ d) $5^4 \times b^2$

5. a) 256 b) 243 c) 125 d) 6561
e) 256

6. a) 7^3
b) 6^5 c) 11^2

7. a) 2^6 or 4^3 or 8^2 b) 3^5 c) 11^3
d) 7^4 or 49^2 e) 2^{10} or 4^5
f) 5^6 or 25^3 or 125^2

8. a) 900000 b) 400 c) 12348
d) 500 e) –392 f) –1152
g) 2592 h) 27000
i) 160000 j) 256

9. a) 71^{g+9} b) 29^{32} c) $(5w)^{25}$
d) n^2 e) $(\frac{87}{2})^{14}$ f) 26^5
g) 46^{30} h) 1 i) 918^{53}
j) 201^d k) $(-89)^{12} = 89^{12}$ l) 9^{18}

10. a) 57 b) 3121 c) 49 d) 9
e) 243 f) 27 g) 2187

11. a) 8000 b) 125 c) 1008
d) 992 e) 1000000

12. a) 7^{59} b) 79^{391} c) 38^{25}
d) $(9mn)^4$ e) 30^{62} f) 252^3
g) 24^8 h) 15^7

Page No. 61

Exercise: 3.2

1. a) 5 b) 0 c) 6 d) 0
e) 1 f) 1 g) odd h) even

2. a) 0 b) 5 c) 1 d) 6
e) 5 f) 4 g) 1

3. a) 3 b) 4 c) 1 d) 2
e) 9 f) 7 g) 8

4. i) (a) ii) (d) iii) (c)

Page No. 66 and 67

Exercise: 3.3

1. a) $9dc^2$ and $-17\,c^2d$ are like terms; $99cd^2$ and d^2c are like terms

b) $-mn$, $7nm$, nm and $7mn$ are like terms; $-7\,n^3m$ and $4n^3m$ are like terms

c) $12b^3a^2c$ and $-2a^2b^3c$ are like terms

2. a) False b) False c) True
d) False (Only positive integer)
e) False (Degree: 3) f) True
g) False (Degree: 4)
h) False (It is 100)

3. a) 10 b) 0 c) $-2a^2b^2$ d)–3

4. i) Ans: (c) iii) Ans: (a)
ii) d) iv) Ans: (a)

5.

S.No.	Algebraic Expression	Degree 1st Term	of 2nd term	The 3rd Term	Terms 4th Term	Degree of the Expression
1.	$15a^3 - 21a^2 - a + 4$	3	2	1	0	3
2.	$a^2b^3c - 9abc^2 + bc^7 - bc$	6	4	8	2	8
3.	$wt^2 - 4z + 7\,w^2t^2z^4 + 15$	3	1	8	0	8
4.	$8m^2 + 8m^3n^3 + 8mn - 8$	2	6	2	0	6
5.	$2n^3m^2 - 6m^3n - 3mn^2 + nm$	5	4	3	2	5
6.	$101 + 5a^2 + 21ab + 9b^3$	0	2	2	3	3
7.	$c^4d - c^3d^2 - c^2d^3 + cd^4$	5	5	5	5	5

6. a) $5d^5 + 6d^2 - 17d$, Degree: 5

b) $-6a^2 - 25a + 26$, Degree: 2

c) $9m^2n + 2n^2m + 9mn + 14m - 3n$, Degree: 3

d) $10c^4 + 2c^2 + 15cd - 13d^2 - 4$, Degree: 4

e) $7p^2 - 4q^2 + 4p - 9q$, Degree: 2

Page No. 68

Exercise: 3.4

1. a) 8

b) $v = 1$ c) $v = 6$

2. (–1)

3. a) 6 b) 5

4. a) 96 b) 64

5. Degree: 6

Chapter - 4 Geometry

Try These (page 72)

1. Equilateral triangle
Isosceles obtuse triangle
Scalene acute triangle
Scalene obtuse triangle
Isosceles right triangle
Scalene right trianlge

2. a) always true
b) never true
c) always true
d) never true
e) always true
f) always true
g) sometimes true
h) never true

3. $10 + 8 > x$, $8 + x > 10$, x lies between 2 and 18.

Try this (Page 75)

$\angle 2$ and $\angle 4$ are ext $\angle A$
$\angle 6$ and $\angle 8$ are ext $\angle B$
$\angle 10$ and $\angle 12$ are ext $\angle C$

Page No. 78 – 80

Exercise: 4.1

1. a. 14^0 b. $64^0, 49^0, 67^0$

2. $\angle C = 90^0, \angle B = 54^0$

3. $x = 26^0$, $y = 33^0$

4. $45^0, 105^0, 30^0$

5. $\angle F = 52^0, \angle D = 76^0$

6. $\angle A = \angle B = 5^0, \angle C = 130^0$

7. $x = 30^0, y = 60^0$

8. $x = 70^0, y = 40^0, z = 50^0$

9. $x = 42^0, y = 84^0, z = 12^0$

10. $x = 135^0, y = 20^0$

11. $a = 125^0, b = 75^0$

12. $x = 29$, the angle are $37^0, 53^0$

Objective type

1. d **2.** a **3.** c **4.** c

Try This (Page 82)

Congruent Pairs
1 and 8, 2 and 14, 5 and 10,
6 and 11, 7 and 13, 12 and 15.
3, 4, 9 and 16 do not have a congruent pair.

Page No: 89 – 91

Exercise: 4.2

1. a. $\Delta RST \cong \Delta CAB$, (SAS)
CPCT: RS = CA, $\angle R = \angle C$, $\angle S = \angle A$

b. $\Delta HTA \cong \Delta MPA$, (ASA)
CPCT: TA = PA, HA = MA, $\angle HAT = \angle MAP$

c. $\Delta ADC \cong \Delta ADB$, (SSS)
CPCT: $\angle ADC = \angle ADB$, $\angle DAC = \angle DAB$, $\angle ACD = \angle ABD$

d. $\Delta DEC \cong \Delta BFA$, (ASA)
CPCT: DE =BF, EC = FA, $\angle DEC = \angle BFA$

2. $x = 7$, SSS congruence condition

3. $x = 1, y = 8$

4. PQ = XY, QR = YZ, PR = XZ, $\angle P = \angle X$, $\angle Q = \angle Y$, $\angle R = \angle Z$, QR = 6.4 cm, XZ = 7.5 cm, $\angle Y = 100^0$

5. $\Delta ABC \cong \Delta DCB$ (SAS)

6. ASA congruence condition
CPCT: RM = SM, Yes PQ bisects RS.

7. 67

8. $x = 3, y = 6$

9. $\Delta ABC \cong \Delta CDE$ (RHS)
CPCT: BC = DE, $\angle BAC = \angle DCE$, $\angle ACB = \angle CED$

10. $\angle P = 50^0$, $\angle B = 80^0$

Constructions: To be done by Students

Miscellaneous Problems:

1. $\angle APB = \angle CPD = 30^0$
$\angle APB = \angle DPC = 30^0$
$\angle CPD = \angle DPE = 30^0$
$\angle APC = \angle BPD = 120^0$
$\angle APD = \angle BPE = 150^0$

2. $x = 25$

3. ΔTSR, ΔSTP, ΔTPQ, ΔPQR

4. $\Delta NPQ \cong \Delta MQR$, (SAS)
CPCT: RM = QN

5. 140^0

6. $y = 31^0$

7. 50^0

8. ASA congruence condition

9. a) SSS congruence condition,

b) SAS congruence condition

10. AAS congruence condition

Chapter - 5 Information Processing

Page No. 97

Exercise: 5.1

1.

Figure no.(x)	1	2	3	4	5	…
No. of sticks (y)	2	4	6	8	10	…

$y = 2x$

2.

Figure no.(x)	1	2	3	4	…
No. of dots (y)	4	7	10	13	…

$y = 3x + 1$

3.

Figure no.(x)	1	2	3	4	…
No. of sticks (y)	4	10	16	22	…

To verify the relationship : y = 6 x – 2

For $x = 1, y = 4 = 6\ (1) - 2$

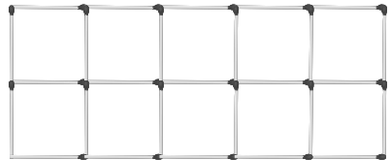
For $x = 2$, y = 10 = 6 (2) – 2

For $x = 3, y = 16 = 6\ (3) - 2$

For $x = 4, y = 22 = 6\ (4) - 2$

Hence the relationship $y = 6x - 2$ is verified.

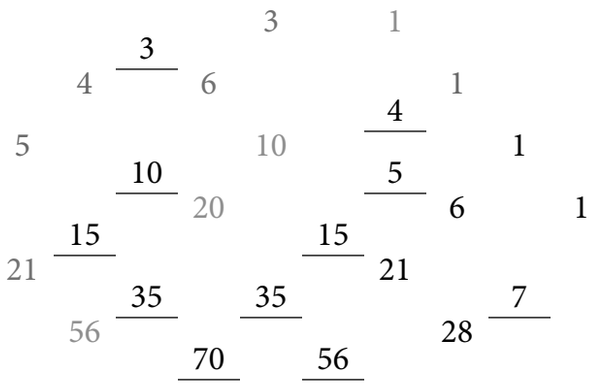
4. The next figure would be:



The number of matchsticks required = 27
The relationship:
$y = 5x + 2$ where x denotes the figure no. and y denotes the number of sticks in that.

5. i) (c) $y = 6x - 1$
ii) (a) $y = -5x + 7$
iii) (c) $y = 2^{x-1}$

Try this (Page 99)



Page No. 105 and 106

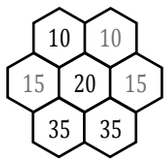
Exercise: 5.2

1.

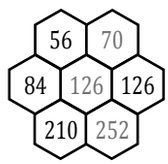
0						1						
1					1		1					
2				1		2		1				
3			1		3		3		1			
4		1		4		6		4		1		
5	1		5		10		10		5		1	
6		1		6		15		20		15		6		1
7			1		7		21		35		35		21		7		1	
8		1		8		28		56		70		56		28		8		1
9	1		9		36		84		126		126		84		36		9		1
10	1		10		45		120		210		252		210		120		45		10		1

2.

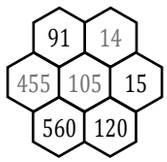
a)



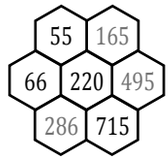
b)



c)



d)



3. 210, 55

4. 256, 2^8

5. 70, row 8

6. 0, 0.

Objective type questions:

1. (b) **2.** (a) **3.** (a) **4.** (c) **5.** (a)

Miscellaneous

1. (a)

Figure no. (x)	1	2	3	4	…
No. of sticks (y)	6	11	16	21	…

$y = 5x + 1$

(b)

Figure no.(x)	1	2	3	4	…
No. of sticks (y)	5	8	11	14	…

$y = 3x + 2$

2. Fill in the missing numbers in the table given below.

Diagram	1	2	3	4		n
Area	1	4	9	16		n^2
Number of dots	4	9	16	25		$(n+1)^2$
Number of 1 cm line segments	4	12	24	40		$2n(n+1)$

3. Student's work

CLASS : 7 KEY ANSWERS TERM : II

Chapter - 1 HEAT AND TEMPERATURE

Evaluation:

I. Fill in the blanks with the correct word/ phrase:

1. mercury
2. Water
3. temperature
4. clinical
5. higher, lower
6. absolute zero
7. one Kelvin

II. Choose the correct answer:

1. a) Kelvin
2. c) thermal expansion
3. d) Water is a good thermometric liquid.
4. c) both a and b

III. Answer briefly:

1.

Heat	Temperature
Heat is a form of energy.	It is a measure of degree of hotness or coldness of a body.
Transfers from a hot object to a cold object.	Higher in a hot object than in a cold object.
SI unit is Joules.	SI unit is Kelvin.
When heat is transferred the total amount of heat in the system remains the same.	When heat is transferred the temperature of the system does not remain the same.

2. A good thermometric liquid shows thermal expansion and is a good conductor of heat.
3. 89 F and 305.15 K
4.

Clinical thermometer	Laboratory thermometer
Used to measure the body temperature (man and animals).	Used in laboratories used during scientific experiments.
Easier to use than a laboratory thermometer.	Harder to use than a clinical thermometer.
The liquid level does not come down on its own.	The liquid level gradually comes down on its own.

5. A digital thermometer does not use the principle of thermal expansion of liquids. Hence, it is easier to use and does not need all the precautions that need to be taken while using laboratory thermometers.

IV. Answer in detail:

1.

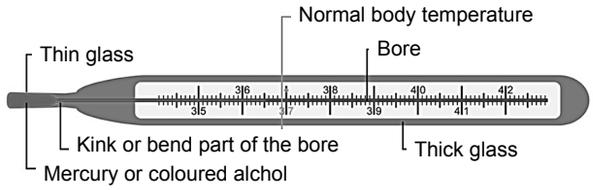


Fig. Structure of a thermometer

The most common thermometer that we use consists of a liquid in bulb, which is connected to a narrow glass column that has graduations. To measure the temperature of an object, the bulb of the thermometer is placed in contact with it. If the temperature of the object is greater than the lowest temperature on the graduations of the thermometer, the heat energy of the object flows to the liquid in the bulb. As it expands, the liquid rises in the

column. The increase in the level of the liquid in the column is proportional to the increase in its temperature. The graduations on the column help us measure the temperature.

2.

Clinical thermometer	Laboratory thermometer
Used to measure the body temperature (man and animals).	Used in laboratories used during scientific experiments.
The maximum and minimum temperatures that can be measured are 42°C and 35°C respectively.	The maximum and minimum temperatures that can be measured are 110°C and -10°C respectively.
The thermometer need not be in contact with the body while reading the temperature.	The thermometer must be in contact with the object while reading the temperature.
Has a kink that avoids the liquid to flow back to the bulb.	Does not have a kink to avoid the liquid flowing back to the bulb.
Easier to use than a laboratory thermometer.	Harder to use than a clinical thermometer.
The liquid level does not come down on its own.	The liquid level gradually comes down on its own.

3. **Mercury has the following features:**

- Uniform thermal expansion (equal linear expansion for equal amount of heat).
- A good conductor of heat.
- Has a high boiling point and low freezing point.
- Non-toxic and easy to handle (as much as possible).

V. Solve the numerical:

1. Convert the following temperatures:

a) 113°F b) 29.93°F
c) –6.6°C e) –126.6°F
d) 262.5K f) 270.9K

2. Kavipriya visits place A at 28°C, place B at 3°C and place C at 273K. Answer the following:

a) Temperature at place A

28°C 82.4°F 301K

Temperature at place B

3°C 37.4°F 276K

Temperature at place C

0°C 32°F 273K

b) The place with the highest temperature is A. The place with the lowest temperature is C.

c) The difference between the highest and lowest temperatures is 28°C or 82.4°F or 301K.

VI. Give Reasons:

1. Water is transparent and it will stick to the sides of the glass tube.
2. Clinical thermometer has a kink because the mercury contracts very fast and we cannot see the body temperature accurately. The kink stops the mercury to cool rapidly there by helping in noting body temperature accurately.

(Or)

A clinical thermometer has a kink which prevents the mercury from falling on its own.

3. Mercury has the following features:

- Uniform thermal expansion (equal linear expansion for equal amount of heat).
- A good conductor of heat.
- Has a high boiling point and low freezing point.

4. Digital thermometers are easier to use because they do not use any liquids. This makes them easier to handle and store.

Evaluation:

I. Choose the correct answer:

1. a) 5A
2. a) 2×10^6A
3. b) they deliver current for a long time

II. Fill in the blanks:

1. higher, higher
2. Ammeter, voltmeter
3. a series

III. Match the following:

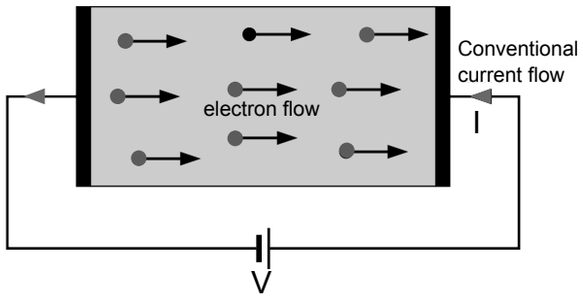
1.	Mike	-	Magnetic effect
2.	Fuse	-	Safety device
3.	Cell	-	Chemical effect
4.	Circuit broken	-	Heating effect
5.	Switch	-	Turn on and off

IV. Analogy:

1. wire
2. volt
3. irreversible

V. Answer in 1 or 2 sentences

1. Electrons, protons and neutrons.
2. When electric charge flows from one surface to another, it is called 'current electricity'.
3. The chemical reactions that happen in primary cells cannot be reversed whereas the chemical reactions that happen in secondary cells can be reversed.
4. Conventional current flows from the positive terminal to the negative terminal. Electron flow happens from the negative terminal to the positive terminal.



(*Or*)

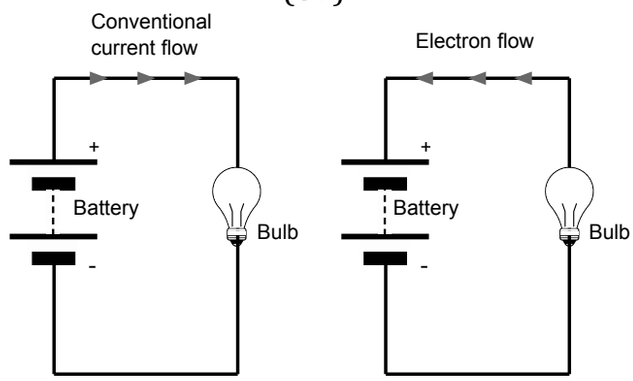
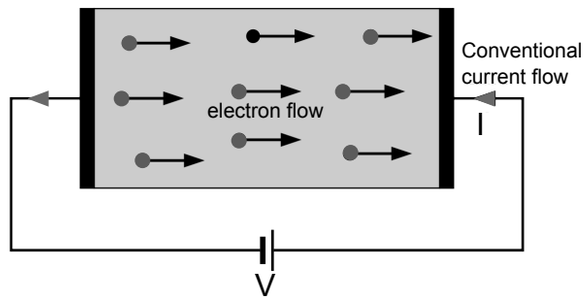


Fig. Circuit Diagrams for Direction of Current Flow

VI. Answer briefly

1. To make a circuit work, the components should be connected properly with the terminals of a power source and be 'closed' to enable the current to flow through the circuit. When a circuit is open, the flow of electric current is interrupted, and the circuit will not work. We call a circuit 'closed' when the circuit components are connected properly with a power source in such a way that it enables an uninterrupted flow of electric current. Switches are used to close or open a circuit. In other words, to let the current flow or to stop as and when required.
2. Conventional current flows from the positive terminal to the negative terminal. Electron flow happens from the negative terminal to the positive terminal.



(*Or*)

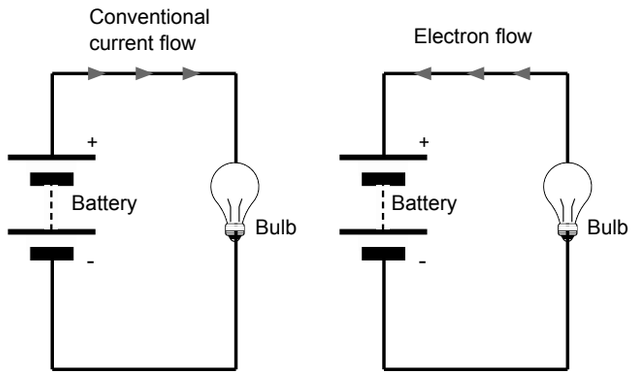
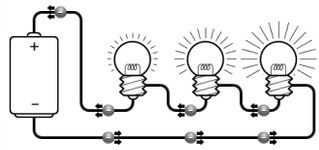
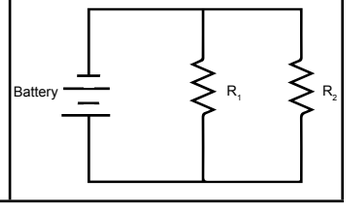


Fig. Circuit Diagrams for Direction of Current Flow

VII. Answer in detail:

1.

Series Circuit	Parallel Circuit
When the components of a circuit are connected in such a way that the current flows from one terminal of a power source to the other terminal through all the components, it is known as a series circuit.	In this type of circuit, the components branch out from the terminals of a power source enabling same voltage to flow through each of the components.
In a series circuit, same current flows through all of the components. When any one of the components does not work, it interrupts the flow of the current and the whole circuit will not work.	When supply of any one of the components is disrupted, it does not affect any other component.
In this circuit, the total voltage across the circuit is the sum of the voltages across each of the components. The total resistance across the circuit is the sum of resistances across each of the components. That is, $V = V_1 + V_2 + V_3$ and $R = R_1 + R_2 + R_3$.	As the components branch out, same voltage can be applied to each of the components. $V = V_1 = V_2 = V_3$
A circuit diagram consisting of 3 bulbs, a cell and a switch connected in series is given below. 	A circuit diagram consisting of a power source and 2 resistors connected in parallel is given below. 

Evaluation:

I. Fill in the blanks:

1. Mass
2. Physical change
3. Exothermic physical change
4. Melting
5. Vapour
6. Condensation

II. Choose the correct answer:

1. b. evaporation
2. b. crystallization
3. a. physical
4. b. curdling
5. b. carbon dioxide
6. b. solid to gaseous
7. a. melting
8. b. crystallization

III. State true or false:

1. True
2. True
3. False
4. False
5. False
6. True
7. False
8. True
9. False
10. False

IV. Answer in 1 or 2 sentences.

1. Properties such as colour, size, shape, smell, texture, density, solubility, mass, volume, lustre, malleability (flexibility) and ductility (ability to be drawn into a thin wire) are termed as physical properties.
2. The process in which only physical properties of a substance undergo a change and there is no change in its chemical composition is a physical change.

   Examples - shredding of paper, melting of ice, etc.
3. Upon heating a substance or an object, the arrangement of particles in it gets disturbed. The particles move away from each other, substance expands and volume increases.
4. Water vapours that evaporate from the earth's surface cool and condense as water droplets. Many water droplets collect together to form clouds.
5. There are certain solid substances, such as camphor and naphthalene, which can be converted into gas directly on heating without becoming liquid. This process in which a solid is converted into vapour is called sublimation.
6. Changes in which there is formation of a new substance with different chemical composition or transformation of a substance into another substance are called chemical changes. Examples – Rusting of iron, rotting of fruits, etc.
7. Fermentation is the process in which certain microorganisms break down sugar solution into alcohol and carbon dioxide. It is an irreversible process as the alcohol formed cannot be turned back into sugar.
8. Conditions needed for a chemical change are:
   - physical contact of substances
   - change in pressure
   - heat
   - electricity

V. Answer the following in detail:

1. When we add or remove heat, there is a change in the state of a substance. Due to addition of heat, the particles move faster. Processes such as melting and vapourization occur on heating. Hence these processes are called endothermic processes. Due to removal of heat, the particles slow down in their movement. Processes such as freezing and condensation occur when heat is removed. Hence these processes are called exothermic processes. Similar to physical changes, chemical changes can also be either endothermic or exothermic. During a chemical change, there may be absorption or release of heat. For example, when a paper is burnt, heat is absorbed, but while adding water to quicklime heat is given out.
2.

Freezing	Crystallization
Exothermic physical change	Endothermic physical change
Fast process	Slow process
Take place at fixed temperature	Take place at any temperature
Good preservation technique	Helps to remove solid impurities

3. The particles of liquids move randomly at different speeds. Some of the particles, especially the ones at the surface, could be moving in a direction away from the liquid. These particles have adequate energy to overcome the attractive forces of the liquid and escape into the air. Thus, slowly and steadily the liquid escapes into air in the form of vapours. This process is evaporation. Evaporation is a separation technique used

to separate dissolved solids from a solid-liquid mixture. This is the technique used to extract salt from sea water.

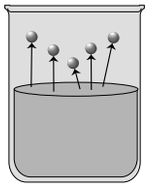


Fig. Behaviour of particles during evaporation

4. Characteristics of a chemical change are:
   a) new substance is formed
   b) heat, light or any other radiation may be given off or absorbed
   c) sound may be produced
   d) gas may be formed
   e) smell may change or new smell may be given off
   f) colour may change
5. Characteristics of a physical change are:
   a) the physical properties of the substance may undergo a change
   b) no new substances are formed
   c) the chemical properties of the substance do not change
   d) the change is usually temporary and reversible in nature

VI. H.O.T.S:

1. Sublimation is endothermic because it requires energy to convert a solid into a gas. The atoms or molecules in a solid substance are tightly packed. In order to excite the atoms or molecules enough to turn into a gas, energy must be added, which makes sublimation an endothermic process.

   Example: Naphthalene, an organic compound commonly found in pesticides such as mothballs, sublimes easily because it is made of molecules that are held together only by weak intermolecular forces. Naphthalene is a solid that sublimes at normal room temperature (solid form of naphthalene evaporates into gas). On cool surfaces, the naphthalene vapours will solidify to form needle-like crystals.

2. Curdling is a process in which liquid gradually turns into solid by forming clumps. It is an irreversible and permanent change. Melting of butter is a reversible change because on freezing, the melted butter changes back to its solid form. Whereas curdling of milk is an irreversible change because on curdling, milk changes to curd and cream (solid lumps), and gets spoilt when not refrigerated, and cannot be changed back to milk (liquid) by any process.
3. Food must be broken down into a form that our cells can use. Our bodies physically and chemically digest food. When we eat, our bodies physically break down food into small pieces. When food is physically changed, mechanical digestion occurs. Mechanical digestion occurs in the mouth, stomach, and small intestine. Our bodies also chemically break down those small pieces of food into tiny organic (simple sugar) molecules. This process is called digestion. Chemical digestion begins in the mouth when enzymes in saliva begin to break down carbohydrates. Most chemical changes in digestion occur in the small intestine. Large molecules of food are broken down into smaller molecules that can be absorbed by our cells. Carbohydrates, proteins, and fats are broken down in different parts of the digestive system using different kinds of enzymes. Different kinds of small molecules are formed by these processes.
4. When heat is added to a body, various things can result:
   a) *Expansion* – When heat is added to a solid, the particles gain energy and vibrate more vigorously about their fixed positions, forcing each other further apart. As a result expansion takes place.

Similarly, the particles in a liquid or gas gain energy and are forced further apart. The degree of expansion depends on the substance.

b) *Increase in temperature* – When heat energy is added to a substance, this results in an increase in the kinetic energy of its particles, that is, the particles move at higher speeds. Since temperature is a measure of the average kinetic energy, the temperature increases.

c) *Change of state* – When a solid change to a liquid or a liquid change to a gas, the temperature does not change while the change of state is taking place. The heat absorbed is being used to separate the particles and there is no rise in temperature. When the change is reversed exactly the same amount of heat is released. The heat energy involved in a change of state is called the latent heat.

d) *It may also undergo a chemical change* – In order for a chemical reaction to take place, the particles require threshold energy. Heating helps these particles to attain this energy. It produces different substances with different properties.

5. A physical change is a change to a sample of matter in which some properties of the material change, but the identity of the matter does not. Change in state of a substance is a physical change. When we heat the liquid water, it changes to water vapor. But even though the physical properties have changed, the molecules are exactly the same as before.

Chapter - 4 FUNCTIONAL UNITS OF LIFE

Evaluation:

I. Choose the correct answer from the following:

1. cell
2. red
3. membrane
4. rough

II. State true or false:

1. False 2. True 3. False 4. True

III. Analogy:

1. Multicellular
2. Chloroplasts
3. Brain of the cell

IV. Answer the following questions in brief:

1. Stem cells, are cells that are able to divide again and again to produce more cells. They have the unique ability to develop into other types of specialised cells like muscle cells, etc.

2. In plant cells, the cell membrane is surrounded by an outer membrane called the cell wall. It is made up of a non living substance called cellulose which gives it shape and rigidity.

3. Chromoplasts are plastids with different colours and are found in the petals of flowers and in vegetables. They contain pigments like carotene and xantophyll.

4. Cells are interconnected with neighbouring cells through cytoplasmic bridges called plasmodesmata that allow transport of materials between cells.

V. Answer the following questions in detail:

1. The functions of the cell wall are as follows:

- It acts as a framework and provides the cell with strength and support.
- It protects the cell.
- It gives shape and rigidity to the cell (due to the presence of cellulose)
- It is freely permeable and allows the movement of substances in and out of the cell.

2. The food that we eat has to be broken down to release energy. This function is carried out by the mitochondria during cell respiration. They use up oxygen from the air to oxidise carbohydrates and fats

and release energy. This energy is stored as an energy rich compound Adenosine triphosphate (ATP) and can be used for all the other cell activities. This is why mitochondria are often referred to as the powerhouse of the cell.

3. Centrioles are tiny micro tubular structures found in a small clear area of the cytoplasm called the centrosome. They are seen only in animal cells and are located near the nucleus. Their main function is to initiate and regulate cell division in animal cells. They help with the separation of chromosomes by forming spindle fibes.

4. The nucleus is the most important part of the cell. It is a small spherical organelle surrounded by a double membrane called the nuclear membrane. It is filled with nucleoplasm, within which are thread like structures called chromatin fibres and at least one nucleolus. The chromatin fibres change to chromosomes during cell division. Chromosomes contain DNA, the genetic material of the cell. The main functions of the chromosomes are to store and carry hereditary material from one generation to the next.

   The nucleus plays an important role in cell division and regulates and coordinates all the activities and reactions that take place within the cell.

5. The difference between plant and animal cells are as follows:

Animal Cell	Plant Cell
Size is usually smaller with no distinct boundaries.	Size is larger with distinct boundaries.
Cell wall absent. This helps it to have different shapes.	Cell wall made of cellulose present. It restricts the cell membrane.
Cytoplasm occupies most of the space inside the cell.	Cytoplasm forms a thin lining along the periphery.
Plastids are absent.	Plastids are present.
Vacuoles, if present are small.	Vacuoles are large taking up almost 80% of the cell.
Centrosomes are present with one or two centrioles.	Centrosomes are absent.

VI. Assertion and Reason Questions:

1. a. Assertion and Reasoning are correct
2. b. Assertion is correct, Reasoning is incorrect

Chapter - 5 BASIS OF CLASSIFICATION

Evaluation:

I. Choose the correct answer from the following:

1. Fungi
2. Linnaeus
3. Symbiosis
4. Mammalia
5. Cold blooded

II. a. Match the organism with the kingdom:

1. Euglena - Protista
2. Bacteria - Monera
3. Pinus - Plantae
4. Penicillium - Fungi
5. Frog - Animalia

II. b. Match the organism with the class:

	Class	Plant Cell
1.	Pisces	Catla
2.	Amphibia	Salamander
3.	Aves	Peacock
4.	Reptilia	Snake
5.	Mammalia	Man

III. Place the following organisms under the correct Phylum:

ORGANISM	PHYLUM
1. Starfish	Echinodermata
2. Snail	Annelida

3. Roundworm	Aschelminthes
4. Housefly	Arthropoda
5. Leech	Mollusca
6. Tapeworm	Platyhelminthes
7. Hydra	Coelenterata
8. ponges	Porifera

IV. Answer the following questions in brief:

1. Classification is the arrangement of plants and animals into groups based on their similarities. It is nothing but categorisation.
2. An American ecologist, R. H. Whittakar, proposed the five kingdom classification. It was based on cell structure, mode and source of nutrition and so has been accepted by all scientists, worldwide.
3. Organisms like bacteria, cyanobacteria and mycoplasma belong to Monera.
4. The Linnaean hierarchy is the system of arranging taxonomic categories in a descending order based on their relationship with other groups of organisms. The seven main categories are Kingdom, Phylum, Class, Order, Family, Genus and Species. Species is the smallest, basic group of the classification.

V. Answer the following questions in detail:

1. Classification is important to us because it gives us an idea about the diverse forms found on the earth. It helps us to identify different living organisms easily, since they are all grouped. It provides us with information about the origin and evolution of different groups of organisms. It also helps us to study different plants and animals, their features, similarities and dissimilarities. It provides information about inter relationships between different categories of organisms.

//Note to the teachers: students can mention any 3 from the above//

2. The dichotomous key is one of the tools used to identify and classify organisms based on their similarities and differences. A key has a series of statements that leads you to identify the correct name of an unidentified thing or organism. There are two choices in each step with characteristics that describe the unidentified organism. You find the answer to identify a species by using a series of questions with two possible answers. The correct answer is the choice that best describes the unknown organism. Based on the choice, you move to the next set of statements, and then again to the next, till finally you are able to identify the unknown organism.

3. The phyla in Kingdom Plantae are as follows:

- Algae: E.g. Chara, Ulva, Spirogyra
- Bryophyta: E.g. Riccia, Funaria
- Pteridophyta: Eg. Fern, Marsilea
- Gymnosperms: E.g. Cycas, Pinus
- Angiosperms: E.g. Rice, maize, mango, neem

4. The ground rules of binomial nomenclature are as follows:

- The scientific names must be from the Latin language or Latinised.
- The generic name (genus) must begin with a capital letter.
- The specific name (species) must begin with a small letter.
- When printed, the scientific name has to be in Italics.
- When written by hand, the generic and specific names must be underlined separately.

VI. Assertion and Reason Questions:

1. b. Assertion is correct, Reasoning is incorrect
2. a. Assertion and Reasoning are correct

CLASS : 7 KEY ANSWERS TERM : II

HISTORY

Chapter - 1 THE VIJAYANAGAR AND BAHMANI KINGDOMS

Evaluation:

I. Choose the correct answer:

1. Hampi
2. Hasan Gangu
3. 1336-1646
4. Portugal
5. 1347-1527

II. Fill in the blanks with suitable answers:

1. Vazir
2. Chandra giri
3. 1422
4. Saluva Narasimha

III. Match the following:

1. Nayaks - Gingee
2. Battle of Talikota - Rakasa Tangadi
3. Ashtadiggajas - Krishnadevaraya
4. Gulbarga - First Capital of bahmani
5. Jama masjid - Gulbarga Fort

IV. Assertion and Reason questions:

1. c) A is correct and R is wrong

V. Find the wrong pair:

b. Ekambaranatha temple – Hampi

VI. Find the odd one:

Alauudin Hasan Bahman Shah

VII. Consider the following statements and find out which one is/ones are correct:

d. Tenali Ramakrishna was the most famous poet among the *ashtadiggajas.*

VIII. Answer in brief:

1. He introduced several administrative and economic reforms that provided order, stability and reliable income to the Sultanate.

   He increased the number of tarafs to eight and reduced the power of the tarafdars.

   To promote learning and research he established a *madrasa in Bidar.*

2. The best examples of this style of temple architecture are the Vithala temple and the Hazara Rama temple in Hampi and the Varadharaja temple and the Ekambaranatha temple in Kanchipuram.

3. Bukka I fought against the Bahmani Sultan and sent his son Kumarakampana to take Madurai. He gained control over Goa and the Krishna Tungabhadra **doab** thus laying a strong foundation for the kingdom, which paved the way for expansion and consolidation by his successors.

4. The power of the Sangama dynasty began to weaken following the death of Devaraya. The kingdom was faced with wars of succession, civil wars and political uncertainty.

5. The Bahmani Sultanate developed a distinct architectural style that borrowed elements from Persia, Turkey and Arabia and blended them with local ones. Their military architecture (forts) was modelled on medieval European architecture and their civil architecture was highly influenced by Persia. Examples are Mahmud Gawan Madrasa (Bidar), the Gol Gumbaz Tomb (Bidar) and the Jama Masjid inside the Gulbarga fort.

IX. Answer in detail:

1. The Sultans who followed Muhammad Shah III were too weak to curb the powers

of the nobles and played into the hands of one group or the other.

Shahabuddin Ahmed (1482 – 1518) was the last Sultan to exercise any real power. His four sons who succeeded him were rulers only in name with the nobles exercising power. After the reign of Sultan Kalim ullah Shah, which ended in 1527, the Bahmani/ Deccan Sultanate disintegrated. In its place arose five new independent sultanates in Ahmednagar, Bijapur, Golkonda, Berar and Bidar.

Chapter - 2 THE MUGHAL EMPIRE

Evaluation:

I. Choose the correct answer:

1. Akbar
2. Humayun
3. Chagtai-Turkic
4. Shahjahan
5. 1540-1555

II. Fill in the blanks with correct responses:

1. Haldighati
2. Badshahi
3. Rank/Position
4. Arjundev
5. Shershah

III. Match the following:

1.	Farghana	-	Babur
2.	Prince Khurram	-	Shahjahan
3.	Humayun's Tomb	-	Akbar
4.	Biwi-ka-Maqbara	-	Aurangzeb
5.	Subahdar	-	Governor

IV. Say whether the following statements are correct or not. If a statement is incorrect, write the correct one:

1. Aurangzeb stayed in Deccan for twenty-five years.
2. Jahangir had conflict with Rajput.

V. Assertion and Reason questions:

1. R is not the correct explanation of A.
2. R is the correct explanation of A.
3. **Identify the correct statements:**

   (ii) a, c and d are correct

4. **Arrange the names of the Mughal rulers in chronological order:**

   Babur, Humayun, Akbar, Shahjahan

5. **Name the Mughal rulers who commissioned the following monuments:**

Humayun's Tomb	-	Akbar
Biwi-ka-Maqbara	-	Aurangzeb
Red Fort	-	Shahjahan
Agra Fort	-	Akbar

VI. Answer in three-four precise sentences:

1. He faced challenges from three quarters:

- his own brothers(Kamran, Hindal and Askari),
- Sher Shah Sur (original name: Farid Khan),
- the Afghan ruler of Bengal and Bihar,

He neither had the will nor the military capability to take on his brothers. He was forced to leave Agra.

2. The mansabdari system introduced by Akbar.

   Mansab means rank/position.

   The mansabdari system was practised both in military and civil departments.

   A mansabdar's rank was dependent on one's zat (status) and *sawar* (the number of horses and horsemen one had to maintain).

3. The Mughal architectural style began with Akbar. It is a fusion of Turkic, Persian and Indian architectural traditions/elements. The characteristic features of Mughal

architecture are vaulted entryways, large domes and ornate decorations.

Humayun's Tomb in Delhi is the earliest example of Mughal architectural style.

VII. Answer in detail:

1. **Mughal central:**

The emperor was at the head of the administrative structure with absolute power. The following are some of the important central ministers under Akbar, each in charge of a department.

- the *wakil* (prime minister)
- the *diwan* or vizier [*wazīr*]) (finance minister)
- the *mir bakshi* (chief of the army)
- the *qazi (*the chief justice) and
- the *ṣadr al-ṣudur* (in charge of religious matters).

They were appointed, promoted and dismissed by the emperor and their duties were well defined.

Provincial Administration:

The Mughal empire was divided into *subahs* (provinces).

Each subah had a *subadhar* (governor), a *diwan, a bakshi,* a *ṣadr* and a *qadi* (judge/ magistrate) along with agents who supplied information to the central government.

The provinces were divided into *sarkars (districts)*. Each sarkar had a *fowjdar* (the administrative head). Large towns had a *kotwal* (in charge of law and order). *Sarkars* were further classified into *parganas* (or *mahals*) consisting of groups of villages.

2. The Mughal rulers were followers of the Islamic faith but their subjects were predominantly non-Muslim. Akbar was the first Mughal ruler to realise the importance of support from his subjects and abolished the *jizyah*, included Hindus in his administration at the highest levels and married Hindu princesses. Akbar also created a new order called the *Dīn-e Ilahi* (Divine Faith, Religion of one God).

Akbar **commissioned** translations of Indian classics from Sanskrit into Persian including the *Mahabharat* and the *Upanishads* and filled his court with artists and intellectuals of all faiths and ethnicities. Akbar's religious and non-discriminatory policy was followed by his successors, with the exception of Aurangzeb who too did not do away completely with hiring Hindus in high offices. *Sulh-i kull* (peace for all) guaranteed State protection to people of different religious backgrounds.

VIII.

1. As patrons of painting, the Mughals gave the world a legacy of enduring beauty in the form of miniature paintings. These paintings served as illustrations for books and albums. **Humayun** is credited with founding the Mughal school of painting since he brought and invited artists from Persia and set up the first Mughal painting studio.

The reigns of Jahangir and of Shah Jahan saw the highpoint of Mughal portraiture. Mughal painting combined Persian and Indian sensibilities and techniques. Paintings from Jahangir's period focus on animals, birds and scenes of life at court.

Thus the foundation for Mughal miniature painting style was laid by Humayun and itreached its heyday under Jahangir.

Chapter - 3 RISE OF THE MARATHAS AND THE PESHWAS

Evaluation:

I. Choose the correct answer:

1. a) the Mughal emperor
2. d) Raigarh
3. c) Balaji Baji Rao
4. c) Deshpande
5. c) Raghoji Bhonsle

II. Fill in the blanks with appropriate answers:

1. Sardeshmukhi
2. Shivaji
3. Shaniwarwada
4. Satara
5. Kulkarni

III. Match the correct pairs:

1. Prince Akbar - Sambhaji
2. Tarabai - Kohalpur
3. Balaji Baji Rao - Nana Saheb
4. Shaista Khan - Aurangzeb
5. Ahmed Shah Abdali - Afghanistan

IV. State whether the following assertions are correct or wrong:

1. Correct
2. Wrong
3. Correct
4. Correct
5. Correct

V. Assertion and Reason questions:

1. a) R is the correct explanation of A
2. b) II is correct

VI. Find the odd one out:

Poona

VII. Identify the wrong pair:

Gaekwad - Kolhapur

VIII. Arrange the following events in chronological order

b) Shivaji crowned himself chhatrapati of the Marathas

d) Shambhaji lost his kingdom to the Mughals

c) Shahu was released by the Mughal emperor

a) Baji Rao I was appointed Peshwa

IX. Answer in one or two sentences:

1. The Sultan of Bijapur made peace with Shivaji and acknowledged him as an independent ruler of the territories he had managed to conquer. Shivaji resumed his raids after Shivaji's Fathers death.
2. Tarabai was nephew of Shahu. Shahu claimed the Maratha throne, defeated Tarabai, occupied Maratha territory.
3. Raghoji Bhonsle was a prominent general in Shahu's reign. He expanded the territory till Nagpur.
4. Prince Akbar, the rebellious son of Aurangzeb, found shelter with Shambhaji in 1681, which brought Aurangzeb to the Deccan in 1682. The Shambhaji led Maratha forces were engaged with the Mughal army for eight consecutive years. In 1689, Shambhaji was captured and executed by the Mughals.
5. Jai Singh besieged the Maratha fort at Purandhar and made Shivaji sign the Treaty of Purandhar in 1665. In compliance with the terms of the treaty Shivaji surrendered several forts to Aurangzeb and agreed to visit his court.

X. Answer in detail:

1. He instituted the system of *ashtapradhan* or a collective of eight officials/ministers to assist him in governing this territory.

   Each pradhan headed a department. They were appointed and dismissed at will by Shivaji.

   They were the

- **peshwa – prime minister -** first among the eight pradhans who looked after the general administration
- **amatya or majumdar** - Finance Minister
- **waq-i-nawis** - Home/Interior Minister
- **dabir or sumant** - foreign department
- **sachiv -** official correspondent
- **pandit Rao** - religious officer
- **sar-i-naubat or senapati** - in charge of army affairs
- **nyayadhish** - chief justice

2. Shivaji built up a strong, standing army by personally supervising the recruitment, training and promotion of soldiers.

   Officers in the infantry and cavalry were ranked and soldiers were paid in cash.

   He paid particular attention to the maintenance of forts and built new ones.

   Shivaji also organised a fairly powerful navy to safeguard the coastline and trade of the kingdom.

GEOGRAPHY

Chapter - 1 CLASSIFICATION OF RESOURCES

Evaluation:

I. Group the following as:

1.

Renewable resources	Non-renewable resources
a community of trees water plastics solar energy a herd of goats	soil minerals metals

2.

Biotic	Abiotic
cotton wood wool coal petrol silk	salt bricks cement wind sun

II. Answer the following based on instructions in each question:

1.

Biodegradable	Non-biodegradable
Banana leaf Carrot Peels	Plastic plate Pencil Ball-point pen Tooth brush Light bulb

2. Recycle shop:

Cardboard boxes, old newspapers and magazines, broken pressure cooker.

III. Choose the correct answer:

1. c. nuclear energy
2. a. Bhakra Nangal
3. d. Kamuthi
4. d. Copper
5. a. Haematite

IV. Match the following:

1. Electricity - China
2. Bauxite - Australia
3. Silver - Mexico
4. Copper - Chile
5. Petroleum - USA

V. Fill in the blanks:

1. Petroleum
2. aluminium
3. China

VI. Distinguish between the following with examples:

1.

Renewable resources	Non-renewable resources
Resources that can be renewed or replenished naturally once used are called renewable resources.	Natural resources that cannot be renewed or regenerated once used are called nonrenewable resources.
These resources do not pollute the environment when they are harvested and used carefully.	Careless use of these resources may lead to its exhaustion.
Eg: Solar energy, Wind energy	Eg: Coal, Copper etc.

2.

Metallic resources	Non-Metallic resources
These resources are composed of metals. They are hard and good conductors of heat and electricity.	Non-metallic resources are mineral resources that do not contain metals. They are not good conductors of heat and electricity.
Examples include Iron, copper, gold, bauxite, silver, manganese etc	Examples include limestone, mica, coal, gypsum, dolomite, phosphate, salt, manganese, granite etc.

3.

Biotic resources	Abiotic resources
Biotic resources are resources derived from the biosphere such as living things and from forest and the materials derived from them. This mainly include fossil fuels like petroleum, coal gas, etc.	Abiotic means other than living things that mean non-living things examples are fresh air, land ,heavy metal.

VII. Answer in Brief:

1. Natural resources are obtained from the environment and are very essential for life. They exist without the action of humankind.
2. They satisfy human needs. They help in proper functioning of the system. they are used to sustain life and meet people's requirements.
3. oxygen, fresh water, solar energy and wind.
4. Three types of Non–renewable resource:
   1) Metallic resources
   2) Non-metallic resource
   3) Fossil fuel resources
5. Different types of coal are:
   - Anthracite
   - Bituminous
   - Lignite
   - Peat
6. It cannot be renewed or regenerated once used are called nonrenewable resources. Careless use of these resources may lead to its exhaustion.

VIII. Give reasons:

1. It is a soft ore that becomes strong when alloyed with carbon and manganese. It is found as the ore of haematite and magnetite.

IX. Fossil Fuel resources:

Fossil fuels are formed from the remains of dead plants and animals. Examples are coal, petroleum and natural gas.

Coal

Features: Coal is the most commonly available fossil fuel. Plants that get buried are turned into carbon over million of years. Coal is classified into four types based on its carbon content.

- Anthracite
- Bituminous
- Lignite
- Peat

Uses: It is used in ironing and for cooking; in boilers; and in power stations to generate electricity. It is also used to make tar to surface our roads.

Found in: China, Russia, India and Australia are the largest producers of coal. In India, Raniganj fields of Bengal and Bokaro, Jharia and Dhanbad in Jharkhand are the largest producers. In Tamil Nadu, Neyveli produces lignite.

Petroleum

Features: Petroleum is found between the layers of sedimentary rocks. It is brought to the surface by drilling oil fields found in coastal and offshore areas.

Uses: It is processed in refineries to produce kerosene, diesel, petrol and aviation fuel which are sources of energy. Petroleum is known as Black Gold.

Found in: The chief producers are Saudi Arabia, Iran, Iraq and Qatar. The others are USA, Russia, United Arab Emirates, Venezuela and Algeria. In India, the leading producers are Mumbai High in Mumbai.

Natural Gas

Features: It is a fossil fuel formed under similar conditions like petroleum.

Uses: Natural gas has provided an easy and efficient way of cooking. We use it as LPG (Liquid Petroleum Gas) in homes and as CNG (Compressed Natural Gas) in vehicles. It is also used to make chemical fertilisers.

Found in: Natural gas reserves are found in the United States of America, Russia, Iran, and Qatar. In India, Krishna and Godavari Delta, Assam, Gujarat and Mumbai.

Chapter - 2 TOURISM IN THE WORLD, INDIA AND TAMIL NADU

Evaluation:

I. Choose the correct answer:

1. d. visa
2. d. school leaving certificate
3. d. markets
4. d. on an adventure tour
5. a. To draw up a plan or schedule of a trip II.

II. Match the following:

1.	Grand Canyon	-	USA
2.	Great Wall	-	China
3.	Stonehenge	-	England
4.	Pyramids of Giza	-	Egypt
5.	Colosseum	-	Italy
6.	Parthenon	-	Greece
7.	Machu Pichu	-	peru
8.	Taj Mahal	-	India

III. What kind of tourism is common to each of the following groups

1. Religious tourism
2. Tourism for Recreation

IV. Choose the odd one out and state the reason for choosing it:

1. a. Jim Corbett - National park
2. d. Dwaraka - religious place
3. b. Mount Abu - mountain
4. a. Gokarna - pilgrimage town
5. c. Kaziranga - a national park

V. If you included the following groups of places, in which state would you be travelling?

i. Rajasthan

ii. Kerala

iii. Uttarakhand

VI. Fill in the blanks:

1. Chittar
2. Kodiyakkarai
3. Kanchipuram
4. Yercaud
5. Kanyakumari

VII. Answer in Brief:

1. Travelling for pleasure or work involves tourism. Some people may travel for treatment, education, research and studies or for pilgrimages and festivals.

   Tourism involves travelling for more than 24 hours. The word tourism is derived from the word tour, which is derived from the old English word 'tourian'.

2. Ooty, Kodaikanal, Darjeeling, Shimla, Yercaud etc.

3. The components of tourism are the three As namely, accessibility, amenity and attraction.

4. The types of tourism are religious or pilgrim, recreational, ecotourism, historical, adventure, etc.

5. A place has its attractions on account of its unique physiography, weather and climate, natural features, its people and their culture, its history, its flora and fauna, its towns and cities.

VIII. Distinguish between the following:

1.

Passport	Visa
An official document issued by a government, certifying the holder's identity and citizenship and entitling them to travel under its protection to and from foreign countries.	A visa is a document issued to a person or a stamp marked on the passport of a person who wants to visit another country.

2.

Itinerary	Travelogue
It is a travel plan. Today, there are many tour operators who help us plan a trip.	Travelogue is an account of one's travels. It could be written or in the form of a video.

IX. Write a note on the positive and negative impacts of tourism:

Positive impacts

- International tourists bring in a lot of foreign exchange.
- They bring in finance through sale of goods and taxes and create employment opportunities.
- They help us develop different kinds of facilities.
- Tourists help promote cultural exchange between different states and countries.
- They promote national integration at the national level and global outlook at the international level

- Domestic and international tourists provide opportunities to learn many different languages.

Negative impacts

- Tourism leads to environmental degradation and depletion of natural resources.
- Space and water have to be provided for tourists, and if there is a short supply then local residents suffer.
- Sanitation and health facilities will have to be upgraded.

CIVICS

Chapter - 1 THE STATE GOVERNMENT

Evaluation:

I. Fill in the blanks:

1. President
2. Bicameral
3. Vidhan Parishad
4. Constituencies

II. State True or False:

1. False
2. False
3. True
4. False

III. Answer the following in one or two lines:

1. A federal system of government means that there are two sets of governments that coexist; the Central and the State government. The powers of the government are shared between the Union and the States.
2. As of August 2019, India has 28 states and 9 Union territories.
3. A Legislature that has only a single House is called a Unicameral Legislature. A state with two Houses is said to have a Bicameral Legislature.
4. All elections are conducted and monitored by the Election Commission of India.

IV. Answer the following questions:

1. MLAs are elected by the people through general elections. The entire state is divided into several constituencies on the basis of the population, for any election. Political parties then nominate their candidates for each constituency. All the citizens that reside in a particular constituency and who have completed 18 years of age can vote. The candidate who gets the most votes is declared elected. He becomes a MLA. On completion of the elections, the party that gets the most number of MLAs is declared as the majority party. The Governor asks the leader of the majority party to form the State government.

2. The qualifications for a person to be appointed as Governor of a state are:

- He must be a citizen of India.
- He should have completed 35 years of age.
- He should not be a Member of Parliament or the State Legislature.
- He should not hold any office of profit.

3. The Chief Minister is the most powerful person and the real Executive head in the State. He is also the chief administrator of the state, and his authority in the State is very similar to the Prime Minister of the country.

   He decides the size of the Council of Ministers and allocates portfolios to them. He plays an important role in formulating the policies and programmes of the government. Under his leadership, the Council of Ministers work as a team and are collectively responsible to the Legislative Assembly of the state.

V. Assertion and Reason questions:

1. c. A is correct and R is wrong
2. a. A is correct and R explains A

Chapter - 2 MEDIA AND DEMOCRACY

Evaluation:

I. Choose the correct option:

1. newspaper
2. broadcasting
3. personal
4. opinion

II. State true or false:

1. True
2. False
3. True
4. False

III. Answer the following in one or two lines:

1. Since modern media, like the television, news paper ,internet etc., reach people or the masses anywhere, be it in your own state, country, or across the globe they are also referred to as mass media.

2. Democracy is a form of Government. It means 'ruled by the people'. The people of the country have a say in how their Government is run. The three main pillars of democracy are the legislature (make the laws), executive (execute the laws) and the judiciary (ensures that the laws are followed).

3. Ethics is a set of values or moral principles that effect how we make decisions and lead our lives. They help us identify between what is right and what is wrong and lead a good life accordingly.

4. In India, people in the villages have been communicating with each other for years through many traditional forms. Different forms of storytelling in South India were carried out through song, dance and drama. Harikatha and Koothu started off as religious forms of media. Harikatha, one of the oldest forms of storytelling used to be performed in temples and other holy places. They helped spread religion, customs, traditionsand folklore from one generation to the next.

IV. Answer the following questions:

1.

Personal communication	Mass communication
Communication between one person and another - helps two individuals to communicate.	Communication with one person or a group of person with the masses- helps to communicate with several people at one time.
Used by an individual for his/her personal activity.	Used to provides entertainment, information and create mass awareness.
Letters, postcards, telephones, emails, SMS	Books, magazines, newspapers, television, radios, films, etc.

2. The media is also called the watchdog of the government as it makes sure that the other three organs of the government are transparent and accountable. It brings out both the strengths and weaknesses of the government and ensures the smooth and proper functioning of the government and the country. It keeps reminding the government of its unfulfilled promises to the people.
3. Any three points from the textbook can be used.
4. Local media covers issues that involve ordinary people in the localities where they live. Be it a tree falling at a local public garden and injuring citizens, or a student excelling in a competitive exam, all these issues are covered by the local media. The local media is also used in rural areas to educate farmers about crops, seeds, fertilizers to be used, etc. Many of these are in the local languages which is even more useful and easy to follow by the people in those localities.

V. Assertion and Reason questions:

1. a. A is correct and R explains A
2. a. A is correct and R explains A

Class: 7 KEY ANSWERS TERM : II

1. THEO'S TOBOGGANING TRIUMPH

Page No. 1

Warm up

Write down three ways in which the two slides are different.

1. The first picture is a water slide for older children and adults, and the second is a normal slide, similar to the ones we see in parks for children.
2. You need a mat to slide down the water slide, while you do not need anything to slide down a normal slide.
3. The water slide is long and adventurous while the other slide is short and fun.

Page No. 8

Reading

A. Write True or False.

1. True
2. False
3. False
4. False
5. True
6. True

B. Who said these words and why?

1. Judge Masterton, who was acting as the starter to the race, said this after he called one competitor from Bridgetown, or one from Riverside and asked them if they were ready to start the race.
2. Ralph said this to Theo, when Theo asked him if it was fair on his part to buy a new and sophisticated toboggan after the race was announced. It was understood that competitors used the toboggans that they always did. Ralph replied with this proverb saying that, since they were at war, there was nothing unfair about it.
3. Ralph said this to Judge Masterton. Ralph had noticed how eagerly, the washer woman's son, Patsey Kehoe had eagerly watched the match, although he did not have a good toboggan to play with. It suddenly occurred to him that he could be kind to that boy and use him as ballast to balance the toboggan. So he asked the judge a minute's time to talk to his team about this.
4. Theo's mother said this to him after he won the race. She said this because, while she was proud of him for winning the race, she was prouder still of his kind heartedness. He gave a chance to Patsey Kehoe to participate in it and she approved of it.

C. Answer the following in a few sentences.

1. Patsey's toboggan was made of old barrel planks and could not carry more than one person at a time, but Ralph's, was finely varnished, comfortably cushioned and could carry four people at a time.
2. Theo was a 16 year old boy who lived in a cozy cottage with his mother on the other side of the river. He was strong, stout and sturdy, and was looked up by the Riverside boys as a leader.
3. Theo shared his day with his mother because she was wise and kind. She took an interest in both his studies and his sports. As he had lost his father, she wanted to be both father and mother to him. He found her approval of his achievement very sweet.
4. The boys from the two sides of the river argued that their team was better at tobogganing. The Bridgetown boys boasted of their toboggans and ability to beat the Riverside boys in any race. The Riverside boys argued against this.

5. Theo wanted the race to be safe and without accidents, and at the same time show which of the two teams performed better. So he arranged that four heats would be held one by one with two contestants from each team participating at one time. At the end of the four heats, the four winners would compete in two races. The last two winners would play against each other and this would show which team was better.

6. The boys prepared their toboggans by making the bottoms smooth for over an hour or two. Then they fastened the cushions tightly so that they would not slip.

D. Answer the following in a paragraph.

1. The game was an exciting event. Fred Fellows and a boy from Bridgetown raced first. Fred, however, swerved and slid across the ice. The Riverside boys became hopeful when they won the next two races. But the Bridgetown boys won the last heat. The four winners, two from each side, competed in the next two races. Two winner, Ralph and Theo, one from each side played the last match. Ralph's toboggan was thin and designed to go very fast. In the beginning, the racers were going head to head. But Ralph's toboggan met with an obstruction and swerved. He set it right so hastily that it went to the other side of the slide, banged on it and broke. Theo won the race.

2. Theo was a strong and sturdy boy and his friends looked upon him as their leader. He shows several leadership qualities such as ability to communicate, plan and kindness towards his friends. He suggested that they race rather than argue and fight. He also planned the race carefully so that many players participated, but not at the same time. He used his skill to reach the final match. But that did not make him forget those Patsey, whose toboggan had been broken by Ralph. He wanted his poor friend to have a good day. So he took him on his toboggan for the final race. This caring nature and his taking the lead in all things makes him a good leader.

Page No. 9 and 10

Vocabulary

A. Choose one of the two words to complete the sentences.

1. meek
2. earnest
3. sorely regret
4. glum
5. bashfully
6. contemptuous

B. Give antonyms for the following words from the lesson.

1. boastful
2. stout
3. innocent
4. hasty
5. pride

C. Match the words with their antonyms.

1. patented	e. unlicensed
2. determined	d. hesitant
3. new fangled	a. well tested
4. vanquished	c. undefeated
5. juvenile	b. geriatric

D. Match the words with the pictures.

1. rudder
2. ragged urchins
3. coasting ground
4. ballast
5. toboggan

Page No. 10 – 12

Grammar

A. Identify if the sentence is in positive, comparative or superlative degree.

1. Comparative
2. Superlative
3. Comparative
4. Superlative
5. Superlative
6. Comparative
7. Superlative
8. Positive

B. Change the following into positive degree.

1. No other girl in the class is so clever as Madura
2. No other Russian writer is so famous as Tolstoy.
3. No other videos are so funny as these in this channel.
4. No other country is so populated as China.
5. No other batsman is so good as MS Dhoni, in my opinion.

C. Change the following into comparative.

1. Samir dances more gracefully than any other boy.
2. The Weddell Sea near the Antarctic is cleaner than any other sea.
3. This software is more suitable for our work than any other.
4. The Sound of Music is better than any other movie.
5. My mother is better than any other.

D. Change the following into superlative.

1. Subash is the most polite boy in the class.
2. This team practises the best in our area.
3. My friend is the closest to me.
4. The climate in Chennai is the most stable than it is elsewhere in the country.
5. The movies on Netflix are the best.

E. Rewrite as directed.

1. This movie is the worst.
2. My coffee is not so hot as your tea.
3. Laughter is better than any other medicine.
4. No other boy in the class is so quiet as Navin.
5. This virus spreads the most quickly of all viruses.
6. Mohan speaks more than any one else in our group.

Page No. 12

Listening

Listen to your teacher read the poem and answer the questions.

1. How beautiful is the rain, is the line repeated twice in the poem.
2. We know that it is summer rain because it comes after the heat and dust of summer.
3. The rain on the roof reminds the poet of the clatter of horses' hooves.
4. The rain rushing in the gutters reminds the poet of a roaring river.
5. The poet is exclaiming at the force with which the water gushes and struggles out. He is struck by the force of the summer rain.

Page No. 13

Speaking

Work in pairs. Discuss the kind of games you play in your neighbourhood. (Answers can vary)

You: What kind of games do you play with the children who live near your home?

Partner: We love playing with marbles and sometimes four corners.

You: How do you play four corners?

Partner: We stand in the four corners of a room. One person stands in the middle. The four people in the corners move from one corner to another. The person in the middle should try to catch anyone who has left one corner and has not reached another corner.

You: Do you wish to play any other game with your friends?

Partner: Actually, we love slow cycling, which is a race in which the slowest cyclist wins. But we don't play this anymore.

You: Why can't you play this game?

Partner: There is so much traffic on the road. We are unable to play these games.

You: I wish we could race with our cycles too;

Partner: As for me, I could cycle the whole day and not get bored.

Page No. 13

Writing

Ice Hockey differs from Field Hockey in three main ways: where it is played, the kind of ball used and the number of players in a team.

While Field hockey is played on the ground, Ice Hockey is played on ice. While a ball is used to play on the ground, a puck, which is a flat rubber ball, is used to play on ice. Ice Hockey teams are smaller than Field Hockey teams. Each Ice Hockey team consists of only six players. This game is popular in countries where water freezes in winter, such as Canada, Nordic countries, Russia, Eastern Europe and the United States.

2. HARD IS THE JOURNEY

Page No. 14

Warm up

Write five lines about the picture.

The traveller appears to be driving on a mountain range. He is driving a jeep which can be used in this kind of a terrain. He has pitched a tent for sleeping. He must have carried fruits and snacks for food. He seems to enjoy the peace of being along in nature. He is a loner, travelling by himself. He is unafraid and is probably prepared to face challenges.

I would like to travel along the banks of great rivers such as the Ganga and the Brahmaputra.

Page No. 16

Reading

A. Choose the best answer from the options given.

1. Gold vessels and jade dishes
2. He is tired of living a life of luxury
3. The river has frozen in some places
4. To stress how difficult the journey is
5. The wind is suitable for sailing

B. Answer the following questions in a few sentences.

1. The man drinks wine from gold vessels and eats rare meats from jade dishes. These are the signs of riches around him.
2. "I lay my chop sticks down, no more can banquet" is the line which shows that the rich man is tired of fine wines and rare meats.
3. Winter is a difficult time to travel as the river is frozen in many places.
4. "stare wildly about me" is the line which tells us that the man is feeling very confused and nervous. He could be confused as to his state of affairs, or his need to travel. He wonders what he is doing in such luxury.
5. Yes, I would like to travel to unknown places and see new people and things there.

Page No. 17 – 19

Vocabulary

Match the gem with its name.

1. Pearls inside a shell
2. Red stone is a ruby
3. The colourless stone is a diamond
4. The green rings are made of jade
5. The blue stone is a saphire
6. The red triangle is a coral

A. Look at the pictures and write down one word used to denote them.

1. right
2. seal
3. second
4. sign
5. cross

B. Underline the homophones in these sentences.

1. sent, scent
2. heir, air
3. I'll, aisle
4. soul, sole
5. role, roll

Page No. 19 and 20

Syllabification

Divide the two syllables in these words.

1. fac/tor
2. en/joy
3. hap/py
4. mo/vie
5. lock/down
6. mo/ther

Divide the three syllables in these words.

1. ra/di/ant
2. fac/to/ry
3. do/na/tion
4. il/lu/sion
5. po/li/cy
6. fab/u/lous

Divide the four syllables in these words.

1. phi/lo/so/pher
2. im/prac/ti/cal
3. fi/nan/ci/al
4. sta/bi/li/ty
5. ne/go/ti/ate
6. ed/u/ca/tor

Put the words given below in the right column.

1 syllable	2 syllables	3 syllables
food	later	sponsorship
round	judgement	recycle
sweet	jealous	syllable
flick	dragon	sabotage

4 syllables	5 syllables
America	simplification
stupidity	possibility
actually	affectionately
economic	vegetarian

Page No. 20

Listening

Identify the pair of homographs in each sentence.

1. wind
2. tears
3. minute
4. object
5. polish

Page No. 21

Writing

Write a paragraph with as many images as you can capture.

(Answers may vary)

Let me tell you about the lake near my home. A walk along the lake will take you through a riot of colours. The red sand, the green trees, the grey and brown trunks of trees, the blue sky reflected on the water are a treat to my eyes. As I walk close to the water, I can see tiny fish moving in large groups, and hear the gentle lapping of the water on the banks. Sometimes, it is windy, sometimes sunny and the lake looks different when it is cloudy and I can smell the sand. Then I know that it is going to rain. And the birds know it too. There are a number of birds in the lake and their squawks and cooing can be heard clearly across the lake. It is a natural paradise. I take everyone who comes home to the lake.

3. PASSEPARTOUT IN JAPAN

Page No. 22

Warm up

Initially, I may feel lost, confused and afraid. But I would approach a couple who look trustworthy and ask them whether I could use their mobile phone. I would explain my situation to them. I would call my parents and tell them where I am. I would give them a proper location and land mark and wait until one of them comes to pick me up.

Page No. 29 and 30

Reading

A. Choose the best answer from the options given below.

1. He needed money to feed himself.
2. He had some painful memories.
3. He wanted to go back to the United States.
4. He did not need one more servant
5. The man who had quit had been in that position.

B. Rearrange the sentences in the right order to summarize their story.

1. Passepartout and Fogg were separated from each other in Japan.
2. Passepartout found some way to get some money and had a breakfast.
3. He decided to find a job to make his way to San Fransisco.
4. So he joined an acrobatic troupe as a clown.
5. He participated in an act with the help of a long nose attached to his face.
6. But the human pyramid balancing on the noses of the acrobats shattered.
7. That was because Passepartout had broken away from his line.
8. The reason was that he had seen his master standing among the spectators.
9. In this way, master and servant were united.

C. Answer the questions in a few sentences.

1. Passepartout's painful experience was that he got lost in Japan. He was tired and hungry. He had to sell his clothes to buy some food. He was also distressed as to how he would find his master.
2. Passepartout would benefit in two ways if he found work as a cook in a steamer. He would get a transport to America as well as food till he got there.
3. Batulcar wanted Passepartout to sing while standing on his head, with a top spinning on his left leg and a sabre balancing on the right.
4. The Long Noses were acrobats who attached long wooden noses to their faces, and formed a pyramid while they balanced on their noses.
5. One performer juggled with candles, which extinguished as they passed his lips but relit again without disrupting his juggling. The other made the top twirl on his hands, on swords, on pipes, on wires and even on a single hair stretched across the stage.
6. Fogg helped Batulcar manage his loss by paying him a huge sum of money.

D. Who said this to whom and why?

1. This was told by Batulcar, owner of an acrobatic company when Passepartout approached him for work. Looking at his Japanese clothes, Passepartout, Batulcar asked him why he was dressed up in that way, when he was not Japanese himself.
2. Passepartout said this when Batulcar asked him if he could sing standing on his head with a top spinning on his left foot and a sabre balanced on the right.
3. Passepartout exclaimed in this manner when he saw Fogg at the acrobatic show. Passepartout was standing as part of the human pyramid with the long noses, when Passepartout recognized him and forgot his position in his excitement.
4. Fogg said this when he saw Passepartout at the acrobatic show. He had just come to watch the show, and had no idea that Passepartout had been trying to reach America by getting a part in the acrobatic show. This question shows that he was surprised to see Passepartout there.

Page No. 30 – 32

Vocabulary

A. Tick the correct option.

1. attired
2. traversed
3. caress
4. adroit
5. reminiscence
6. appendage
7. tottered
8. appeased

B. Match the pictures with the words given below.

First row Left to right

1. juggler
2. equilibrist
3. cornice
4. gallery
5. human pyramid
6. car of juggernaut

C. Match these words with their antonyms.

1. retained — d. discarded
2. departure — e. arrival
3. attraction — a. repulsion
4. graceful — c. clumsy
5. sturdy — b. weak

D. Names of ten different kinds of sailing vessels.

dinghy, cutters, sloops, ketch, schooner, catamaran, caravel, coracle, cog, dhow

Page No. 32 – 34

Grammar

A. Change into passive voice.

1. His grey beard is caressed by Mr. Batulcar.
2. The pyramid is formed by the performers.
3. His position is abandoned by Passepartout.
4. He is appeased by Fogg giving him a handful of bank notes.
5. His wings and long nose are retained by him.

B. Change into active voice.

1. Passepartout discovers a native dealer.
2. The clown carries a placard.
3. The Frenchman makes a grimace.
4. Passepartout recalls the exercises.
5. Fogg pays money.

C. Fill in the blanks with the right preposition.

1. away
2. on
3. down
4. during
5. since
6. in
7. on
8. among
9. between
10. along

Page No. 34

Listening

1. The clock was bought on the day grandfather was born, and it stopped working on the day he died.
2. The swinging of the pendulum attracted grandfather to the clock when he was a boy.
3. The clock was faithful and never wasted time, which is why grandfather called it a good servant.
4. The clock expected the grandfather to wind it up once a week.
5. Grandfather was ninety when he died.

Page No. 35

Speaking

Answers are based on the student's and experience and can vary. Here is a sample.

1. Making fans and flowers with paper is easier.
2. I can never juggle candles, and it is very dangerous.
3. Yes, I have seen a little girl walk on a rope.
4. Making a pyramid with false noses seems impossible to me.

Writing

Answers are based on the student's interview of a family member or a friend.

My aunt Anita loves travelling. She went with her friends on a trip to Gujarat. They were travelling to the Rann of Kutch which is a desert made of salt. She told me that she would cherish all the memories from the trip. After a certain point, vehicles were not allowed inside the salt desert. They had to walk or travel by camel carts. The camels had designs in black and colour all over the body. They sat or stood up based on the instructions of their master. The camel cart owners raced against each other and laughed as one cart crossed the other. After they got down from the camel carts, aunt Anita and her friends went for a long walk on the salty landscape which was pure white. It looked like the land was covered with snow, but it was actually covered with salt crystals for several kilometres on all sides. It was peaceful and quiet and they walked together for sometime and sat on the salt covered earth and watched the sun rise. The sun looked pink on a white horizon and very beautiful.

The only sad thing was that some people had thrown plastic covers and spat betelnut juice on the white salt covered floor. Altogether, it was a memorable and surprising experience for her.

4. A STITCH IN TIME

Page No. 36

Warm up

Discuss art and culture in all the images.

1. The colourful turban protects the man from the hot sun and its design and shape is part of his culture.
2. Music and the instruments use are part of our culture.
3. A variety of spices make Indian cooking very different from others and its part of our culture.
4. The dancing dolls show how technology is used to make the dolls very different and beautiful.
5. Embroidery designs show the creativity in our culture.
6. Simple games with stones and similar natural objects, but with no expensive equipment is common trait of our traditional games.

Page No. 40 and 41

Reading

A. Give reasons for the following actions done by people in the lesson.

1. Chanda went to Kutch in 1969 as a volunteer from Ramakrishna Mission to distribute relief materials to areas affected by drought.
2. The women of Kutch are offended when we offer them things for free because they earn money through their craftsmanship and feel that they can take care of themselves.
3. Chanda started an organization called Shrujan because she wanted to promote and preserve the art and culture of the people from Kutch. She began to study the different syles of embroidery in that region.
4. The women in the refugee camp learnt embroidery in the light of oil lamps because there was no electric connection available in the camp.
5. Chanda took some women on a tour of museums because she wanted them to see how good quality embroidery can be valued and showcased.

B. Why did Chanda do the following?

1. She took the help of the local cobbler to study the designs made in the upper of the shoes.
2. She began to engage in conversation with women from several tribes in order to study the designs that they made.
3. Whenever she saw an new style of embroidery she would try to locate its creators because she wanted to form a network of women who created embroidery designs.
4. She started an organization called Shrujan in order to learn about various styles and to preserve and promote these arts by selling them everywhere.

C. Answer in a few sentences.

1. The landscape of Kutch is dry with a desert eco system, with grass lands and thorn forests. The land is not fertile enough to feed them.
2. The women whom Chanda worked with were from several tribes. They belonged to twelve different tribes and knew over 42 styles of doing embroidery.
3. Answer may vary (Students work)
4. The women usually teach embroidery to the members of their families and to members of their own tribes. Of late, they help out poor women who do not belong to their tribes by teaching them embroidery.
5. Mai Bhambi had told her followers to respect embroidery. So they felt that they should not sell it for money. Chanda Shroff

told them that they were paid for their labour, and not their art.

6. When people stopped buying quilts in large numbers, the makers managed to earn by doing designs on jackets, bags and cushion covers, which had a better market.

7. Chanda won the Rolex award because she had taught thousands of women from a remote and dry part of the country to find a sustainable source of income. She had revived the art form of embroidery.

D. Answer in a short paragraph.

1. Chanda Shroff noticed that the quality of embroidery was low in a village. She realized that the women had eye problems. She conducted an eye camp in that village, and got the women to wear spectacles. The quality of embroidery improved. Similarly she convinced the followers of Ma Bhambi to think of embroidery not as art but as labour. This way they said that they were paid for labour and not for their embroidery.

2. I was living in a refugee camp. I was one of the two women who know how to embroider. Members of my family were always dressed in beautiful clothes. All the women admired my work. One day, Chanda came to our camp and listened to the troubles of the women at the camp. She asked us if anyone of us knew how to embroider. I showed her some of my designs. She asked me if I could teach it to the other women. She said if we gave her embroidered clothes, she would pay for them. Then some of our needs would be met with. I thought it was a good idea. Women were busy during the day and were free to work only during the night. So, we sat together under candle light and I taught them to stitch along with another friend who knew embroidery. It was hard, but the women learnt with interest. Soon, we were all making some money and were able to buy many essential things for our family.

Page No. 41 and 42

Vocabulary

A. Write the noun forms of the following words from the lesson.

1. empowerment
2. sustainability
3. determination
4. establishment
5. disrespect

B. Write the verb forms of the following words from the lesson.

1. embroider
2. innovate
3. testify
4. organize
5. labour

C. Match the opposites.

1. offended	c. comforted
2. reject	d. accept
3. impoverished	e. enriched
4. promoted	b. demoted
5. initially	a. finally

D. Match the words with the pictures.

Row 1 Left to right

volcano	earthquake	mudslide
tsunami	floods	avalanche

E. Check the dictionary to see what these words mean.

1. A tour is a journey of pleasure where several places are visited.
2. An excursion is a short journey or a trip, a leisure activity
3. A trek is a long, difficult journey made on foot.
4. Globe trotting is travelling regularly across the countries as if it is normal.
5. An expedition is a trip with a goal to find or study something in a particular place

Page No. 44

Grammar

A. Change the sentences from active to passive.

1. The floor is swept by me everyday.
2. A software code is written by my sister.
3. A prescription has been written by the doctor.
4. That glass bottle may be broken.
5. Special classes for Mathematics are attended by students.
6. Flowers are changed by the lady everyday.

B. Change the sentences from passive to active.

1. Rotis were being made by him the whole day.
2. The documents had been signed by the members.
3. Their own cloth were spun at home by many villagers.
4. Free clothes were donated to the victims of flood.
5. The piano was being played by her at the concert.
6. Groceries are being bought by her at the store.

Page No. 44

Listening

Listen to the poem and answer the questions given below.

1. The hut is surrounded by rice field and is under the shade of coconut trees.
2. He feels love when he hears children singing
3. The home is bare and simple and so the traveller finds it peaceful
4. The poet says he is ready to sleep in tents.
5. The only thing the wandering saint wants is the love and peace of God.

Page No. 45

Speaking

Imagine how Chanda discovered the eye problem of the craftspersons.

Chanda: Oh dear! All these pieces have poor stitches! Why have done such irregular patterns?

Woman: Really? What do you mean by that? It looks fine to me.

Chanda: Do you have a problem seeing this clearly?

Woman: Yes, my eyes ache when I embroider these days.

Chanda: Okay! What about the other women in the village? Why are so many pieces of embroidery bad?

Woman: They complain of sore eyes too.

Chanda: So, I will arrange for an eye camp here. I will bring some doctors to check your eyes.

(After the doctor visits)

Woman: Welcome Chanda Kaki! Here is my embroidery.

Chanda: How lovely! How did you manage to improve so fast?

Woman: Let me show you. This is how I see better and make neat stitches.

Chanda: I am so glad that you no longer suffer from sore eyes, and can see clearly.

Woman: Yes, I can do so many things better now, like read and write letters, create new designs and find things that I misplaced. So many other women have got glasses too. We thank you for arranging an eye camp for the village.

Page No. 45

Writing

Write an account of your visit to the museum.

We visited the embroidery museum in a small village near our city. It was a beautiful place. The embroidery pieces were divided into so many styles and kept behind glass cases. This is a good way to keep it dust free. The thread

used in embroidery looks like silk and is shiny and in attractive colours. Although I have seen embroidery work before, I never realized there were so many types of embroidery till I saw the names of the styles under each glass case.

Very interestingly, these were not made in the city or the village. They had been brought here by craftsmen from tribal communities. The women who had done this work are from these tribes and have learnt this art from their mothers and other family members. These styles had been practised in their families for years. The person at the museum told me that there were 50 styles of embroidery.

There were many books at the museum that narrate the history of each tribe and how they use the embroidery on their turbans, tunics, blouses, skirts and shawls.

There was also a sales counter where we saw so many beautiful products such as bags, shawls, blankets, wall hangings and jackets. The tribes were from a place called Kutch in Gujarat.

All my classmates were impressed by the neatness and the beauty of the stitches. I wish I knew how to do embroidery. I am going to ask my grandmother to teach me because she is good at it.

5. HOME

Page No. 46

Warm up

Look at the picture and discuss the questions.

1. Their home is made of mud and leaves or straw.
2. The furniture is made of wood and strong thread.
3. This family lives in a village.
4. They are looking into a computer. They may be looking at photographs or at a lesson that the child needs to study.
5. They all seem to be smiling with interest and look happy. They may be living in a humble home but thre is the joy of togetherness.

Page No. 48

Reading

A. Say if the lines are true, false or not given.

1. True
2. True
3. False
4. False
5. True
6. True

B. What do you understand about the home?

1. The playthings show that children lived in that home and had a lot of fun playing with their toys.
2. The thumb marks show how people have lived in the house and touched the walls while opening doors or windows.
3. The roses show that the people who lived in the house loved to garden and make the house look beautiful.

C. Answer the following questions in a few sentences.

1. When we go outside, we see many strange things, but we do not get the comfort, love and familiarity of the home.
2. (Answer can vary) Luxurious things are important only to some extent. They are enjoyable but not absolutely required for a happy home.
3. It takes years of living to change a house into a home.
4. (Answers can vary) They eat their meals together. They talk to each other about their lives and they watch television together.
5. The person who took care of the roses also knew how to arrange the plants in such a way that it was beautiful to see.

D. Write three sentences starting with the following lines.

1. Home isn't a place where we just get things from others.
2. Home isn't a place where you work all the time.
3. Home isn't a place where strangers live together and do not talk to each other.

Page No. 49 and 50

Vocabulary

A. Read the meanings of the idioms and fill in the blanks.

1. In hot water
2. Hold your horses
3. Cross your fingers
4. The cold shoulder
5. Cost an arm and a leg
6. Cool as a cucumber

B. Match the words with the antonyms.

1. appreciate	d. criticize
2. difference	a. similarity
3. luxury	b. poverty
4. gradually	e. hurriedly
5. blossom	c. wither

C. Match these phrases with their meanings.

1. earn
2. move aside
3. put on face powder
4. adjust with something less suitable
5. temporary
6. move towards
7. steal

Page No. 50

Grammar

Change these sentences from passive to active.

1. The watch man will collect a fine from all the latecomers.
2. The production house will release this film next year.
3. Graduates will take up this course as a specialization
4. They will give the registration forms to the selected candidates.
5. You will submit your homework very promptly in the future.

Listening

Work in pairs

Frame five questions each and ask each other the answers.

Questions may vary.

1. What is a houseboat?
2. Describe the houseboats of Kerala.
3. How are houseboats built?
4. Compare the houseboats of Kerala and Srinagar?
5. Why do people enjoy living in houseboats?

Speaking

Prepare a short speech of seven or eight sentences describing your home and what you love about it. (Answers depend on the student's experience. Encourage the student to write their own experience.)

My home is in a quiet street a little away from the main road. I love to reach to the peace of my home. I love also love the corner I chose to do my homework. It is near a window and I can watch the trees on the street outside my house. Sometimes birds sit on it and sometimes a bat sits on it. I like to have dinner with my family. Sometimes mother lets us eat chips with dinner. My brother and I get excited when we see her break open a packet of chips at dinner time. I also love listening to music and talking about it with my brother. All of us like watching movies or cricket matches together. These are the things I love about my home.

Page No. 51

Writing

What are people doing during quarantine?

A man is seen reading a book. As we cannot go out to meet people, it is important to occupy our mind with the ideas and thoughts of other people. Good ideas and thoughts can be found in books. It is also more fun to do with a hot cup of chocolate milk or tea.

Another fun activity can be to take care of plants. It is amazing to see how plants grow from the seeds we plant. You can water it and take care of it along with a family member, as the boy and the girl are doing it in the picture.

As we cannot go out to eat, we can share the household duties such as cleaning or helping a parent prepare food. We can clean vegetables, learn to make some simple dishes and do it together as a family.

Indoor games are a good way to have a relaxing day when we are not working. The popular indoor games such as carrom board, ludo and chess are easily available in toy shops. We can play with our family members.

We can browse the internet for interesting information on how people are managing during pandemic and learn about the health risks.

We can learn and practice an art during the long hours of staying at home. It can be rangoli or pencil drawing or colouring. These activities require time and patience, but once we start doing them, we can enjoy our own creativity.

6. A LESSON FOR KINGS

Page No. 53

Warm up

Name these religious festivals.

Top left	–	Pongal
Top right	–	Christmas
Second Left	–	Buddha Poornima
Second right	–	Baisakhi
Third left	–	Mahavir Jayanti
Third right	–	Eid

Page No. 57 and 58

Reading

A. Choose the best answer from the options given below.

1. To find his own faults
2. The king ruled with righteousness and there was no crime.
3. They had no complaints
4. Equal in all ways except their nature
5. Dressed in such a way that no one identified him.

B. Answer the following questions in a few sentences.

1. Brahmadutta went to Takkasila and became accomplished in all arts. He ruled with righteousness and equity. He gave judgments without partiality, hatred, ignorance or fear.These are the good qualities of Brahmadutta.
2. He wanted to find his own faults because everyone around him only praised him and did not tell him what was wrong with his rule.
3. The prince found that people were happy with his rule and could find no fault with him.
4. The chariots stopped because the road was too narrow to allow both of them to pass.
5. The Prince and King Mallika were of the same age, ruled equally large kingdoms and had the same amount of wealth and power.
6. The prince was superior to King Mallika because he was good to people who showed anger and other negative qualities such as wickedness or lying and corrected them by being calm, good and truthful. But King Mallika treated people in the same way they treated him. He was good only to good people.

C. Answer in a paragraph.

1. Brahmadutta found no one was able to tell him his faults inside the palace. He then asked people in his city, who too were unable to find any faults in him. He also asked people who lived in the suburbs and at the four gates. Hearing only his own praises, he decided to travel in disguise he went all over his country and yet found no one who would tell him of his faults.

2. Brahmadutta and the King Mallika were both rulers of the same age. Both were lords of kingdom three hundred leagues in extent. Their armies were of the same size. Their families were equally renowned and their countries were equally good and wealthy.

The difference in their natures became clear when the charioteers described their righteousness. While King Mallika treated people with the same level of goodness, mildness and wickedness, they showed him, Brahmadutta conquered anger by calmness, stinginess with generosity and lying with truth. Brahmadutta was more righteous than King Mallika.

D. Take turns and narrate the story using the following links.

Buddha was born in his previous life as Brahmadutta. He went to Takkasila and became accomplished in all arts. He returned to his kingdom and began to rule after the time of his father.

He ruled with righteousness and there was no partiality in his judgment, which led to a fall in the crime. Soon there were no cases being fought in the courts.

Brahmadutta could not believe that there were no faults in his rule. He decided to go outside his palace to find out his own faults because he thought that perhaps people inside the palace feared him.

As he could find no fault finder inside the country, he decided to go another country. On a narrow path on a hill, his chariot came face to face with another chariot, which was ridden by King Mallika from the kingdom of Kosala.

Only one chariot could pass through the narrow road. So the two charioteers compared their kings to see who was superior. While they were equal in wealth, fame and power, Brahmadutta was found to be more righteous than King Mallika. Upon hearing that Brahmadatta was true and generous even to the lying and stingy, King Mallika and his charioteer decided to alight from their chariot and give way.

Page No. 59

Vocabulary

A. Choose one of the two words.

1. accomplished
2. equity
3. bustle
4. uttered
5. precipitous
6. sought
7. renown
8. righteousness

B. Words that are similar in meaning to renown.

eminence, glory, repute, illustriousness, prominence, acclaimed, esteem

C. Match the antonyms.

1. ignorance	e. knowledge
2. ceased	d. started
3. praise	b. criticism
4. wicked	a. virtuous
5. renown	c. anonymity

Page No. 60

Grammar

A. Change the sentences from active to passive.

1. The dancers were graded by the judges for their skill.
2. The lever is turned up by the driver to give the signal.
3. Several cakes had been eatend by the Queen with her tea.
4. A cart is being pushed up and down the hill by the children.
5. The cricket score will be told to you by me.
6. By whom have these rumours been spread among the villagers?
7. Several driving tests have been taken by him without success.
8. The rules for admission were being discussed by the board members.

B. Change the following from passive to active.

1. The employees had misplaced the files.
2. She has spent all her money already.
3. Her nanny feeds the child.
4. Most people purchase goods online these days.
5. The warden of the hostel told them many lies.
6. They played video games on holidays.
7. The shopkeepers will give discounts on all clothes after the festival.
8. People who were dressed in costumes of comic characters entertained us.

Page No. 61

Listening

1. doubtful
2. bold
3. serious
4. proud
5. challenging

Writing

(Answers can vary. Here is a sample.)

Buddha believed in a simple way of life. He requested people to feed him and ate whatever they gave him.

One day, a woman who was very tired of house work, saw Buddha at her door. She was irritated that one more person was asking her for food. She shouted angrily at him although she had some food left over at home.

Buddha thanked her and started to leave. The woman was surprised at his politeness and called him back. She asked him why he was not upset by her anger. In response, he said, "If you give me something and I do not take it, to whom does the thing return?"

"To me," she said, and realized that she had harmed herself more by being angry. She apologized to the great Buddha and gave him food to eat.