# SCHOOL, THRISSUR 

## CLASS VIII

## QUESTION BANK

PART II
2023-24

## English

## Different Types Of Adverbs With Examples

1. Adverbs of Manner

| Abruptly | Gently | Neatly | Slowly |
| :--- | :--- | :--- | :--- |
| Angrily | Happily | Nicely | Softly |
| Badly | Fiercely | Politely | Suddenly |
| Carefully | Perfectly | Quickly | Well |
| Easily | Heavily | Quietly | Awkwardly |
| Fast | Kindly | Sadly | Carelessly |
| Clumsily | Loudly | Secretly | Strongly |

2. Adverbs of Place

| Above | East | Near | In |
| :--- | :--- | :--- | :--- |
| Around | Everywhere | Outside | Indoor |
| Backwards | Forward | Miles Apart | Outdoor |
| Behind | Here | South | Inside |
| Below | North | Up | Yonder |
| Between | Far Away | West | Overseas |
| Down | There | Abroad | Closeby |

3. Adverb of Time

| Hourly | Daily | Weekly | Monthly |
| :--- | :--- | :--- | :--- |
| Nightly | Annually | Already | Yearly |
| First | Tomorrow | Today | Before |
| Next | Soon | Tonight | Now |
| Since | Yesterday | Yet | Finally |
| Previously | Late | Earlier | Later |
| Just | Recently | Eventually | Still |

4. Adverb of Degree

| Absolutely | Barely | Very | Hardly |
| :--- | :--- | :--- | :--- |
| Almost | Extremely | Full | Least |
| Deeply | Less | Practically | Most |
| Enough | Much | Positively | Little |
| Quite | Rather | Simply | Completely |
| So | Somewhat | Terribly | Too |

5. Adverb of Frequency

| Infrequently | Daily | Generally | Always |
| :--- | :--- | :--- | :--- |
| Hourly | Frequently | Normally | Occasionally |
| Seldom | Every day | Usually | Often |
| Annually | Monthly | Never | Hardly Ever |

6. Interrogative Adverbs

Why Where
How When

## Identify the Type of Adverb

I. Go through the given sentences and identify the type of adverb used in each sentence.

1. The boy practised his speech regularly.
2. The phone kept ringing constantly.
3. The people have gone out.
4. I have heard this story before.
5. Are you quite sure?
6. You are driving too carelessly.
7. I always try my best.
8. You are quite right.
9. He solved the problem quickly.
10. I have heard enough.
11. The boy often makes the same mistake.
12. Why are you still here?
13. I could hardly recognise him.
14. The little kid is too shy to sing.
15. The horse galloped away.
16. The girl sang sweetly.
17. What is he doing outside?
18. He practices cricket every day.
19. I look forward to hearing from you soon.
20. The old woman was walking slowly.
21. The kittens are playing there.
22. Children usually rush about.
23. The girls danced gracefully.
24. She has travelled everywhere.
25. Very few rulers treated their subjects mercifully.
26. The protestors are going to start marching from here.
27. The NGO holds the lottery weekly.
28. The teacher is rarely absent.
29. The orchestra performed very well in tonight's show.
30. When are the college elections being held?

## Answers.

1. Adverb of Frequency 2. Adverb of Frequency
2. Adverb of Place
3. Adverb of Time
4. Adverb of Degree
5. Adverb of Degree
6. Adverb of Frequency
7. Adverb of Degree
8. Adverb of Manner
9. Adverb of Degree
10. Adverb of Frequency 12. Interrogative Adverb
11. Adverb of Manner 14. Adverb of Degree
12. Adverb of Place 16. Adverb of manner
13. Adverb of place 18. Adverb of time
14. Adverb of time 20. Adverb of manner
15. Adverb of place 22. Adverb of manner
16. Adverb of manner 24. Adverb of place
17. Adverb of manner 26. Adverb of place
18. Adverb of time 28. Adverb of frequency
19. Adverb of degree 30. Interrogative adverb
II. Fill in the blanks with appropriate prepositions using the given alternatives.
20. The lion was killed the hunter a sword, (in, on, by, with)
21. Father divided his property four sons, (between, among, of, in)
22. He has been living in this house ..... 1985. (for, since, in, on)
23. I shall return a month, (in, of, on, for)
24. The Ramayana is lying the table, (in, of, on, for)
25. We shall finish this work. ..... 5 p.m. today, (in, by, on, at)
26. Send me letters this address, (by, in, to, on)
27. You should listenwhat your parents say.(among, in, to, between)
28. Sita writes $\qquad$ English. (with, on, in, at)
29. He did not listen $\qquad$ my advice, (at, to, in, on)
30. Do you live (at, on) Bay Street (in, on) Newport?
31. I hung the picture (above, on) the fireplace.
32. She walked (in, into) the kitchen and put her packages (on, over) the table.
33. Is Jane (at, in) home? No, she is (on, at) the library.
34. Mary is sitting (in, on) the sofa (at, in) the living room.
35. Michigan is situated (in, between) Lake Michigan and Lake Huron.
36. While waiting for my train, I took a walk (around, across) the station.
37. A formation of twelve airplanes flew (over, on top of) our house.
38. The artist spends many hours (in, on) his studio (on, at) 50 Charles Street.
39. John found a note pinned (in, on) his door which said: "Meet me (at, in) the corner of Pine and Fifth Streets."
40. The Blake family lives (at, on) Third Street (in, on) Cleveland, Ohio.
41. Don't forget to put your return address (in, on) the envelope.
42. He sat (near, against) the camp fire.
43. Mr. Flanagan, who is (from, of) Ireland, is staying (at, to) his sister's home in Boston.
44. Someone has spilled ink (in, on) this rug and has burned a hole (in, on) that one.
45. The door was locked; so I shoved the letter (under, around) the door.
46. He piled the books (above, on top of) the table.
47. He arrived (in, at) Switzerland last week.
48. You are ahead of me. Your name is (above, at the top of) the list.
49. Your score on the examination is well (above, over) average.
50. Does the movie begin (at, on) 6:30? No, it will not begin (until, for) 9:00; so do not arrive (before, by) that time.
51. He asked me to come (at, in) noon.
52. We will go to Florida (since, during) the month of January.
53. The stores stay open (on, in) Mondays (until, for) 9:00p.m.
54. Mary has been in the United States (for, during) a year.
55. John has lived in France (for, since) two years.
56. I read (for, during) three hours, (at, from) 9:00p.m. (until, by) 12:00.
57. Did you meet Mr. Green (at, during) your stay in Savannah?
58. No, I did not see him because I was there (for, during) only two hours.
59. The train is (on, in) time. It will arrive (in, by) three hours.
60. Is your birthday (in, on) April? Mine is (in, on) April 7.
61. Come (by, on) 8:00 if you can; no one will be seated at the theatre (after, since) 8:30.
62. I try to get to school (in, on) time to have a cup of coffee before my first class.
63. He will leave for Thailand (at, in) the end of August. There will be a farewell party for him (in, on) the twentieth of August.
64. Columbus discovered America (in, on) 1492.
65. The projector broke down twice (for, during) the showing of the film.
66. He had been waiting here (during, since) noon.
67. I received my bill (to, in) the middle of the month.
68. Can you be ready (by, on) six o'clock?
69. We plan to finish this project (around, until) the first of the year.

Answers.

| 1. by, with. | 2. among. | 3. since. |
| :--- | :--- | :--- |
| 4. in. | 5. on. | 6. by. |
| 7. on. | 8. to. | 9. in. |
| 10. to. | 11.on, in | 12. above |
| 13. into, on | 14. at, at | 15. on, in |
| 16. between | 17. around | 18. over |
| 19. in, on | 20. on, at | 21. On, in |
| 22. on, after | 23. Near | 24. From, at |
| 25. On, in | 26. Under | 27. On top of |


| 28. In | 29. At the top of | 30. Above <br> 31. at, until, before |
| :--- | :--- | :--- |
| 32. at |  |  |
| 34. on, until 35. for 33. during |  |  |
| 37. for, from, until  38. during |  |  |
| 40. on, in 41. in, on 39. for <br> 43. on 44. at, on 42. by, after <br> 46. During 47. Since 45. In <br> 49. By 50. Around 48. In <br>   $* * * * * * * *$ |  |  |

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## HINDI

Lesson 8

## यह सबसे कठिन समय नहीं

1. चिडिया की चोंच में क्या दवा है?
2. भीड़ कहाँ है?
3. कौन कहानी सुना रही थी?
4. नानी किसको कहानी सुना रही थी?
5. 'यह सबसे कठिन समय नही’ इसका कवि कौन है?

## Lesson 9

कबीर की साखियाँ

1. साधू से क्या पूछना नही चाहिए?
2. किसको महत्व देना चाहिए?
3. माला कहाँ फिरता है?
4. कबीर किसकी निंदा नहीं करने को कहते है?
5. आँख में क्या पड़ने से दुख होता है?
6. जग में किसको बैरी नहीं है?

## Lesson 10

## कामचोर

1. बहुत वाद विवाद के बाद क्या तय हुआ?
2. काम करने पर बच्चों को क्या दिया जाएगा?
3. काम करने के लिए कितने झाडू थे?
4. मुर्गियों को हाँकने के लिए क्या-क्या लिया?
5. बडा मुर्गा कहाँ खूद पडा?
6. हज्जन माँ कैसे सो रही थी?
7. भेड़ कहाँ टूठ पडी?
8. घर में कितने भैंस थे?
9. अम्मा ने कहाँ जाने के लिए सामान बाँधी?
10. पाठ के आखिर में अदना ने क्या कहा?

## पाठ - 14 <br> अकबरी लोटा

1. किसे पैसे चाहिए थे?
2. कितने पैसे चाहिए थे?
3. किसे पैसे देने थे?
4. कौन सहायता करने तैयार था?
5. दुकानों से महीने भर कितना किराया आता?
6. झाऊलाल के मित्र का नाम क्या था?
7. वह पैसे कहाँ से लाए थे?
8. लोटा क्यों लाया गया?
9. लोटा कहाँ गिरा?
10. गलि में कौन इकट्टा हुए?
11. पत्नी लोटे के साथ क्या लाना भूल गई?
12. गिरने से पूर्व लोटा कहाँ टकराया?
13. बिलवासी ने अंग्रेज को कहाँ बिठाया?
14. ‘डेंजरस ल्यूनाटिक’ - किसने किससे कहा?
15. ‘डेजरस क्रिमिनल’ - किसने किससे कहा ?
16. कहा रिपोर्ट लिखवाने की सलाह दी?
17. बादशाह हुमायूँ किससे हारकर भागे थे?
18. ब्राहमण को कितने सोने के लोटे दिए?
19. लोटा गिरते वक्त अंग्रेज क्या कर रहा था?
20. लोटा कितने में बेचे?
21. मेजर डगलस कौन है?
22. उनके पास क्या है?
23. नूरजहाँ के किस भावना पर जहाँगीर न्योहावर हुए?
24. बिल्लोंर की हाँडी में क्या टँगा रहता?
25. अंड़ा कितने में खरीदे?
26. किससे अंडा खरीदे?
27. बिलवासी क्या लपेट कर चारपाई पर पड़े रहे?
28. लेख्रक का नाम क्या है?
29. दूसरे दिन कब तक वे सोए रहे?
30. पाठ का नाम क्या है?

## Science- Physics

## Chapter 15

## Some Natural Phenomena

## I. Choose the correct answer.

1. The point from where the shock waves of an earthquake originate is called
a) epicentre
b) Seismic focus
c) focal depth
d) none of these
2. The magnitude of the earthquake is measured in
a) Kelvin Scale
b) Celsius Scale
c) Decibel Scale
d) Richter Scale
3. The outermost layer of the earth is called
a) mantle
b) outercore
c) crust
d) innercore
4. Where is the lightning conductor located?
a) In the bottom of the building
b) On the top of the building
c) In the middle of the building
d) Any where can be installed
5. Ligtning always follows
a) rain
b) thunder
c) the easiest path
d) a straight path
II. Fill in the blanks.
6. The electrical charges generated by rubbing two object is $\qquad$ electricity.
7. When charges flow, they constitute $\qquad$
8. $\qquad$ is an instrument that records Seismic waves.
9. ........ can save buildings from destruction due to lightning.
10. $\qquad$ is an earthquake under sea.

## III. Name the following.

11. Two natural calamities -
12. Who discovered the static electricity or lightning in clouds and when?
13. What are the weak zone called?
14. Two types of charges -
15. Branch of Science which deals with the study of earthquakes-
IV. Write True or False and correct the false statement.
16. We can predict an earthquake.
17. The outermost layer of the earth is not fragmented.
18. Opposite electric charges repel each other.
19. Silk acquires negative charge when rubbed with a glass rod.
20. Lightning is caused by the accumulation of charges in the clouds.
V. Short Answer Questions
21. What happens when two clouds with unlike charges approach each other?
22. What happens when amber is rubbed with fur?
23. What is ligtning?
24. How are most earthquakes caused?
25. What are Seismic waves?

## Chapter 13

## Light

## I. Multiple choice questions:

1. The reflection of light from smooth surface is called
a) diffused reflection
b) regular reflection
c) dispersion
d) spectrum
2. Bean of light striking the reflecting surface is called
a) incident ray
b) reflected ray
c) refracted ray
d) normal ray
3. Two mirrors A and B are placed at right angles to each other. A ray of light incident on mirror A at an angle of $25^{\circ}$ falls on mirror B after reflection. The angle of reflection for the ray reflected from mirror B would be
a) $25^{\circ}$
b) $50^{\circ}$
c) $65^{\circ}$
d) $115^{\circ}$
4. If two plane mirrors are inclined at an angle of $40^{\circ}$, the number of images formed will be
a) 7
b) 8
c) 9
d) 5
5. The transparent front part of the eye.
a) Iris
b Cornea
c) retina
d) pupil
II. Fill in the blanks:
6. Splitting of white light into seven colours is called $\qquad$
7. Kaleidoscope is based on the concept of . $\qquad$
8. .......... is the perpendicular line on the incidence point.
9. A plane mirror forms a $\qquad$ image.
10. The reflection of light from an uneven surface is called $\qquad$

## III. True or False:-

11. Both incident ray and reflected ray lie in the same plane.
12. Rainbow is formed due to dispersion.
13. Rods are sensitive to bright light.
14. Iris is the coloured part of the eye.
15. Diffused reflection is due to the failure of laws of reflection.

## IV. Answer the following:-

16. Differentiate between real image and virtual image.
17. How can night birds see in the dark.
18. How do ciliary muscles affect the functioning of the eye?
19. What is power of accomodation?
20. What is persistence of vision?

## Chemistry

## Chapter-6

## Combustion and Flame

## I. MCQ

1) In the sun, light and heat are produced by
(a) chemical reactions
(b) nuclear reactions
(c) burning reactions
(d) Bunsen burner
2) Lowest temperature at which a substance catches fire is known as
(a) lowest temperature
(b) burning temperature
(c) ignition temperature
(d) flaming temperature
3) Which of the following are required essentially for producing fire?
(a) Glass, coal, water
(b) Fuel, coal, straw
(c) Fire, wood, burner
(d) Fuel, air, heat
4) The most common element used as fire extinguisher is
(a) $\mathrm{CO}_{2}$
(b) oxygen
(c) phosphorus
(d) $\mathrm{NO}_{2}$
5) Baking soda constitutes
(a) hydrogen chloride
(b) sodium oxide
(c) sodium bicarbonate
(d) oxygen
II. Fill in the blanks
6) The substance which vaporises during burning gives
7) A good fuel should have ................ calorific value.
8) $\ldots \ldots \ldots \ldots \ldots$ are substances that release energy on combustion.
9) The most common supporter of combustion is $\qquad$
10) Incomplete combustion of fuels containing carbon releases gas.

## III. True or False. If false correct the statement

1) A matchstick only contains white phosphorus.
2) The middle zone of a flame has yellow colour
3) Increase in nitrogen gas in atmosphere has led to 'global warming'.
4) Burning of charcoal produces flame with four distinct zones.

5 Soda-acid fire extinguisher contains sodium bicarbonate and dilutes sulphuric acid.

## IV. Very Short type Answer:

1) What is the composition of the head of a matchstick?
2) Which part of a flame does a goldsmith blow for melting gold and silver?
3) What is the unit for expressing the calorific value of a fuel?
4) Name some of the substances which burn without producing a flame.
5) Name the term which is used to express the efficiency of a fuel.

## V. Short Answer type Questions

1) Why food is called fuel for our body?
2) Why is the innermost zone of a flame black in colour?
3) Explain how $\mathrm{CO}_{2}$ is able to control fires.
4) Which is the best fire extinguisher for fires involving electrical equipment and inflammable materials like petrol?
5) Why is water not used to control fires involving electrical equipment?
6) Why does cooking oil catch fire if a frying pan is kept on the burning stove for a long time?

## VI. Assertion and Reason type Questions

a) Assertion and reason both are correct statement and reason is correct explanation for assertion.
b) Assertion and reason both are correct statement and reason is not correct explanation for assertion.
c) Assertion is correct statement but reason is wrong statement.
d) Assertion is wrong statement but reason is correct statement.

1. Assertion- match stick does not catch fire on its own at room temperature.
Reason- the head of the safety match contains only antimony trisulphide and potassium chlorate.
2. Assertion- the LPG can catch fire easily.

Reason- LPG has low ignition temperature OR LPG are inflammable substances.
3. Assertion - water can be used to control fire equipment or oil Reason- water is commonly used to control fire.
4. Assertion - Magnesium and charcoal are combustible substances.

Reason - a chemical process in which a substance reacts with oxygen to give off heat is called combustion.
5. Assertion-In case of burning, air and moisture are necessary. Reason-Oxygen is a supporter of combustion. In case of burning, air and moisture is necessary.

## BIOLOGY

## Chapter 7

## Conservation of Plants and Animals

1. What is deforestation? Explain its effects in details.
2. Which gas is predominantly responsible for global warming?
3. What are extinct species?
4. What gas do plants use in photosynthesis?
5. What is 'species'?
6. Name the first Reserve Forest of India.
7. What is Biosphere?
8. Name two national parks.
9. What is deforestation?
10. What can be done to retain our 'green wealth' for generations?
11. What is Red Data Book?
12. Name two wildlife sanctuaries.
13. How many rock shelters have been identified in the Pachmarhi biosphere reserve?
14. What is a wildlife sanctuary?
15. What are the aims of the 'Forest Conservation Act' in India?
16. What is the major threat to survival of organism?
17. Name the part of earth which supports the biodiversity.
18. Give examples of two endemic flora
19. Name the plant found in Satpura forest.
20. How do we protect wildlife?
21. What do you mean by migration? Write causes of migration.
22. Name two threatened wild animals.
23. What is the tiger Project? When it was launched?

## Chapter 6

## Reproduction in Animals

1. Name the male and female gametes produced by the testes and ovaries
2. What is the other name of the fertilized egg?
3. Name the male reproductive organs of human beings.
4. Name the female reproductive organs of human beings.
5. How is a Zygote changed into an embryo?
6. What is foetus?
7. What are viviparous animals?
8. Give two examples of viviparous animals.
9. What are oviparious animals? Give 2 exmaples.
10. What is metamorphosis?
11. What are test tube babies?
12. Why aquatic organisms produce a large number of sperms and eggs?
13. Define external fertilization? Give two examples.
14. What is a sexual reproduction?
15. Draw the various stages in the life-cycle of frog.
16. What is cloning?
17. Draw a labelled diagram of female reproductive system of human being.
18. Draw a labelled diagram of a sperm.

## History

## Chapter 6

## The Great Uprising

1. The last Mughal Emperor of India.
2. Which battel was considered as the first major British Victory in India?
3. Name two groups of people who suffered due to the withdrawal of royal patronage.
4. When did the British introduced railways in India?
5. Name the place where Enfield Pritchett rifle was manufactured.
6. Name the first soldier to protest against the use of cartidges.
7. Who led the revolt in Lucknow and who assisted her?
8. Which all places Kunwar Singh organized and led the revolt?
9. How did British historians refer the revolt of 1857 ?
10. According to the Act of 1858 what rule was established in India?
11. Governor General is also know as $\qquad$
12. Who was the queen of England when the Act of 1858 was passed?
13. Who were listed as Martial races?
14. What are the changes in the army after the revoltof 1857 ?

## Chapter 3

## The Parliamentary System

1. The period during which the houses meet to conduct its business.
2. How is a law introduced in the parliament for the first time?
3. Indian Parliament is also known as $\qquad$
4. Indian parliament consist of the ......... and the two ........ of the parliament.
5. First past-the-post electrol system is also known as $\qquad$
6. When did the first elected parliament came into being?
7. Who is the present speaker of Lok Sabha?
8. What is the age limit to become a member of Rajya Sabha?
9. Who have the power to summon the two houses of the parliament?
10. The period of time when the ministers answer the questions asked by the members of the parliament.
11. Mention the powers possed by the Indian President.
12. The process of removing President from his power.
13. The $\qquad$ is the link between the President and the legislature.

## Answer the following.

1. Explain the features of the parliamentry system of government.
2. Who is the architect of Indian Parliament? Write a note on Indian Parliament.

## Social and Political Life

## Chapter 4

## The Judiciary

1. The first Chief Justice of India?
2. The apex of judicial hierarchy?
3. Who appoints in chief Justice of India?
4. When was supreme court of India inaugurated?
5. The process of removal of Supreme Court judges.
6. How many High Courts are there in India?
7. Till what age a High Court Judge can serve?
8. The court that hear criminal cases at district level.
9. The court that deals with land records.
10. Court set up for speedy justice.
11. Who are the members of Lok Adalat?
12. What do you know about Lok Adalat?

## Geography

## Chapter 4

## Mineral and Power Resources

1. What are ores?
2. Arrange the following into sequential order
i) Iron Age
ii) Copper Age
iii) Bronze Age
iv) Steel Age
v) Stone Age
3. Give one example of ferrous minerals.
4. What do you mean by open cast mining and drilling?
5. Find the odd one coal, petroleum, hydel power, biogas
6. ........ is widely used to generate thermal electricity.
7. Name any one product which can made up of petroleum.
8. Name any two coal mining areas in India.
9. ....... is produced by using the force of falling water.
10. The word photovoltaic cells is related to
a) wind energy
b) tidal energy
c) solar energy
d) nuclear energy
11. Suggest some measures for the conservation of mineral and power resources.
12. Differentiate between metallic and non-metallic minerals.
13. What are the different types coal?
14. Differentiate between conventional and non conventional sources of energy.
15. Write the features of petroleum.
16. Give the main characteristics of minerals

## Mathematics

Chapter-11

## Mensuration

## I. Fill in the blanks.

1. $1 \mathrm{~cm}^{3}=$ $\qquad$ $\mathrm{mm}^{3}$
2. If the area of a rhombus is $60 \mathrm{~cm}^{2}$ and one diagonal is 10 cm , then the other diagonal is $\qquad$
3. Eight persons can stay in a cubical room. Each person requires $27 \mathrm{~m}^{3}$ of air. The side of cubical room is $\qquad$
4. If the height of a cuboid becomes zero, it will take the shape of a $\qquad$
5. The floor of a room is a square of side 6 m , its height is 4 m , then volume of the room is $\qquad$
6. The base radius and height of a right circular cylinder is 14 cm and 5 cm respectively. Then its curved surface area is $\qquad$
7. A cuboid has $\qquad$ pair of identical faces.
8. A cylinder has $\qquad$ curved surface and $\qquad$ circular faces, which are identical.

## II. Find the following.

1. A cuboidal box has height, length and width $20 \mathrm{~cm}, 15 \mathrm{~cm}$ and 10 cm respectively. Then find its TSA.
2. Find height of a cylinder whose radius is 7 cm and total surface area is $968 \mathrm{~cm}^{2}$
3. Find area of the following figures.
i)

ii)

iii)

4. A copper wire of length 44 cm is to be bent into a square and a circle. Which will have larger area?
5. Two cubes are joined end to end. Find the volume of the resulting cuboid, each of the cube is of side 6 cm .
6. How many bricks each 25 cm by 15 cm by 8 cm , are required for a wall 32 m long, 3 m high and 40 cm thick?
7. Find area of hexagon ABCDEF . Given that $\mathrm{AD}=8 \mathrm{~cm}, \mathrm{AJ}=6 \mathrm{~cm}$, $\mathrm{AI}=5 \mathrm{~cm}, \mathrm{AH}=3 \mathrm{~cm}, \mathrm{AG}=2.5 \mathrm{~cm}$ and $\mathrm{FG}, \mathrm{BH}, \mathrm{EI}$ and CJ are perpendicular on diagoanl AD from the vertices $\mathrm{F}, \mathrm{B}, \mathrm{E}$ and C respectively.

8. The diagonals of a rhombus are 12 cm and 5 cm . Find the perimeter of the rhombus.
9. The volume of a cuboid is $440 \mathrm{~cm}^{3}$. If its base area is $154 \mathrm{~cm}^{2}$, find its height and lateral surface area.
10. The volume of a circular cylinder is $3234 \mathrm{~cm}^{3}$. If its radius and height are in the ratio $1: 3$ find its total surface area.
11. In a building there are 24 cylindrical pillars. The radius of each pillar is 28 cm and height is 4 m . Find the total cost of painting the curved surface area of all pillars at the rate of $₹ 8$ per $\mathrm{m}^{2}$.
12. If ' $a$ ' is the side of a regular hexagon, then find its area.
13. A road roller takes 750 complete revolutions to move once over to level a road. Find the area of the road if the diameter of the roller is 91 cm and length is 1.25 m .
14. The lateral surface area of a hollow cylinder is $4224 \mathrm{~cm}^{2}$. It is cut along its height and formed a rectangular sheet of width 32 cm . Find perimeter of the rectangular sheet.
15. A company packages its milk powder in cylindrical containers whose base has a diameter of 16.8 cm and height 20.5 cm . Company places a label around the curved surface of the container. If the label is placed 1.5 cm from the top and bottom, what is the total surface are aof the label?
16. The sum of the base radius and height of a solid cylinder is 37 m . If total surface area is $1628 \mathrm{~m}^{2}$, find the circumference of the base. Also find volume.
17. Find the ratio between total surface area of a cylinder to its curved surface area given that its height and radius are 7.5 cm and 3.5 cm .
18. The radius and height of a cylinder are in the ratio $5: 7$ and its volume is $550 \mathrm{~cm}^{3}$. Find its radius.
19. A rectangular sheet of paper $44 \mathrm{~cm} \times 18 \mathrm{~cm}$ is rolled along its length and a cylinder is formed. Find the volume of the cylinder.
20. A solid cylinder has total surface area of 462 square cm . Its curved surface is one-third of its total surface area. Find volume of the cylinder.

## Chapter-12

## Exponents \& Powers

## 1. Fill in the blanks

a. Reciprocal (multiplicative inverse) of $\left(\frac{1}{3}\right)^{-2}$ is
b. $\left(3^{0}+4^{-1}\right) \times 2^{2}$ is $\qquad$
c. $\left(3^{-1}+4^{-1}+5^{-1}\right)^{0}$ is $\qquad$
d. If $5^{\mathrm{m}} \times 5^{-3}=5^{5}$ then m is $\qquad$
e. If $2^{p} \div 2^{-4}=4^{5}$, then $p=$ $\qquad$
f. $\quad 0.00000000837$ in standard form is $\qquad$
g. $\quad 3.61492 \times 10^{6}$ in usual form is $\qquad$
2. Evaluate
a. $\left(\frac{5}{8}\right)^{-7} \times\left(\frac{8}{5}\right)^{-4}$
b. $\frac{8^{-1} \times 5^{3}}{2^{-4}}$
c. $\left\{\left(\frac{-2}{3}\right)^{-2}\right\}^{2}$
d. $\left\{\left(\frac{1}{3}\right)^{-3}-\left(\frac{1}{2}\right)^{-3}\right\} \div\left(\frac{1}{5}\right)^{-2}$
e. $\quad\left(7^{-1}-8^{-1}\right)^{-1}-\left(3^{-1}-4^{-1}\right)^{-1}$
3. Simplify and express the result in power notation with positive exponent.
a. $\left(\frac{1}{2^{3}}\right)^{2}$
b. $\left(3^{-5} \div 3^{-10}\right) \times 3^{-5}$
c. $2^{-3} \times(-7)^{-3}$
d. $\frac{3^{-5} \times 10^{-5} \times 125}{5^{-7} \times 6^{-5}}$
4. Find the area of rectangle with width $6 x^{2}$ and length $12 x^{3}$. Also find the area if $\mathrm{x}=2$ meters.
5. Find $x$ if $\left(\frac{11}{9}\right)^{3} \times\left(\frac{9}{11}\right)^{6}=\left(\frac{11}{9}\right)^{2 x-1}$
6. State true or false
a. Very small numbers can be expressed in standared form using negative exponents.
b. $\quad a^{p} \times b^{q}=(a b)^{p q}$
c. $\frac{1}{(8)^{-3}}=2^{9}$
d. $(-1)^{3}=1$
e. The multiplicative inverse of $(-2)^{-2}$ is $(2)^{2}$
f. $\frac{x^{m}}{y^{m}}=\left(\frac{y}{x}\right)^{-m}$
7. Simplify $\left(\frac{4}{13}\right)^{4} \times\left(\frac{13}{7}\right)^{2} \times\left(\frac{7}{4}\right)^{3}$
8. Simplify

$$
\frac{\left(3^{-2}\right)^{2} \times\left(5^{2}\right)^{-3} \times\left(t^{-3}\right)^{2}}{\left(3^{-2}\right)^{5} \times\left(5^{3}\right)^{-2} \times\left(t^{-4}\right)^{3}}
$$

9. Simplify

$$
\frac{2^{-5} \times 3^{-5} \times 125}{5^{-4} \times 6^{-5}}
$$

10. By what number should $(-8)^{-3}$ be multiplied so that the product is equal to $(-6)^{-3}$ ?

# Chapter-3 <br> Understanding Quadrilaterals 

## I. Match the following.

Name of the regular polygon

1. Equolateral triangle
2. Square
3. Pentagon

Measure of each exterior angle
4. Nonagon iii) $60^{\circ}$
5. Hexagon
iv) $72^{\circ}$
6. Decagon
v) $90^{\circ}$

## II. Choose the correct answer

7. A polygon is a simple closed figure formed with
a) one line segment
b) two line segments
c) three or more line segments
d) no line segments
8. If AB and CD are 2 parallel sides of a parallelogram, then
a) $\mathrm{AB}>\mathrm{CD}$
b) $\mathrm{AB}<\mathrm{CD}$
c) $A B=C D$
d) none of these
9. A regular polygon is
i) Equiangular
ii) Equilateral
a) only (i)
b) only (ii)
c) Either (i) or (ii)
d) Both (i) and (ii)
10. ABCD is a rectangle. AC and BD are its diagonals. If $\mathrm{AC}=10 \mathrm{~cm}$ then BD is
a) 10 cm
b) 5 cm
c) 15 cm
d) 20 cm
11. $\angle \mathrm{A}$ and $\angle \mathrm{B}$ are two adjacent angles of a parallelogram, if $\angle \mathrm{A}=70^{\circ}$, then $\angle B=$
a) $70^{\circ}$
b) $90^{\circ}$
c) $110^{\circ}$
d) $180^{\circ}$
12. PQRS is a trapezium, which of the following statements is true?

a) $P Q=S R$
b) $P Q \| S R$
c) $P S=R Q$
d) $\angle \mathrm{PSR}=\angle \mathrm{SRQ}$
13. Which one of the following is a regular quadrilateral?
a) square
b) trapezium
c) kite
d) rectangle
14. Which of the following quadrilaterals have two pairs of adjacent sides equal and its diagonals intersect at $90^{\circ}$ ?
a) square
b) kite
c) rhombus
d) rectangle
15. Which one of the following is a closed curve that is not simple?
a)

b)

c)

d)

16. In the given pentagon, which of the following lines is not a diagonal?
a) FC
b) BD
c) AC
d) BE


## III. Do as directed.

17. In the parallelogram ABCD , find $x$

18. In the given figure find $x+y+z$
19. Find the value of k in the given triangle.

20. Find the measure of each interior angle of a regular polygon of 9 sides.
21. ABCD is a rhombus.

Find the values of $\mathrm{x}, \mathrm{y}$ and z .
Also find $\mathrm{x}+\mathrm{y}+\mathrm{z}$

22. In the given parallelogram $A B C D$ find $x$ and $y$.
23. The angles of a quadrilateral are in the ratio 1 : $2: 3: 4$. What are the measures of the four angles?

24. Adjacent sides of a rectangle are in the ratio 5 :
12. If the perimeter of the rectangle is 34 cm , find the length of the diagonal.
25. The diagonals of a rectangle ABCD meet at O . If $\angle \mathrm{BOC}=44^{\circ}$ find $\angle \mathrm{OAD}$

26. PQRS is a rectangle with $\angle \mathrm{QPR}=32^{\circ}$. Determine $\angle \mathrm{SQR}$

27. In the given trapezium ABCD in which $\mathrm{AB} \| \mathrm{DC}$. Find $\angle \mathrm{C}$.
D

28. In the given figure find the measure of $\angle \mathrm{MPN}$.

29. In the given figure anglebisectors of $\angle \mathrm{A}$ and $\angle \mathrm{B}$ meet at a point P . If $\angle \mathrm{C}=100^{\circ}$ and $\angle \mathrm{D}=50^{\circ}$ find the measure of $\angle \mathrm{APB}$.

30. The measures of angles of a hexagon are $x^{0},(x-5)^{\circ},(x-5)^{\circ},(2 x-5)^{\circ},(2 x-5)^{\circ}$, $(2 x+20)^{\circ}$. Find the value of $x$. Also find all angles.
31. A quadrilateral has three acute angles each measures $80^{\circ}$. What is the measure of the $4^{\text {th }}$ angle.
32. WXYZ is a rectangle. Find $x$. Also find the lengths of diagonals.

33. Find the value of $x$ in the following regular polygon


## Chapter-7

## Cubes and Cuberoots

## I. Choose the correct answer.

1. The cube of 4 is
a) 64
b) 16
c) 12
d) 4
2. The cube of an odd number is always a/an
a) even number
b) odd number
c) prime number
d) all of these
3. The ones' digit of the cube of the number 10709 is
a) 1
b) 0
c) 7
d) 9
4. Which among the following is not a perfect cube?
a) 1
b) 8
c) 9
d) 27
5. The value of $6^{3}$ is
a) 18
b) 2
c) 216
d) 6
6. Which of the following is the cube of its own?
a) -1
b) -2
c) -3
d) -9

## II. Fill in the blanks

7. 17 is a cube root of ............
8. If 72 x is a perfect cube then $\mathrm{x}=$ $\qquad$
9. The cube root of $140 \times 2450$ is $\qquad$
10. $\sqrt[3]{5 \times 7 \times 7 \times 5 \times 7 \times 5}=$ $\qquad$
11. $(0.3)^{3}=$ $\qquad$

## III. Do as directed

12. What is the smallest number by which the following numbers must be multiplied so that the product is a perfect cube? Also find cube root of new number.
a) 392
b) 1944
c) 1323
13. What is the smallest number by which the following numbers must be divided so that the quotient is a perfect cube
a) 2916
b) 3087
c) 648
14. Find the cube root of the following numbers by prime factorisation method.
a) 5832
b) 17576
c) 19683
15. Write the digit in the one's place of the cube root of the following cube numbers.

Cube numbers Ones' digit in cuberoot
a) 2744
b) 2197
c) 32768
d) 15625
e) 97336
16. The volume of a box which is in the shape of a cube is 4913 inches. Find the dimensions of the box.

## Chapter-9

## Algebraic Expression and Identities

## I. Choose the correct answer.

1. Which of the following is a binomial?
a) 10 y
b) $3 x^{2}$
c) $a+b$
d) $8 x y$
2. Which of the following is a like term to $-3 x$ ?
a) $5 x$
b) $3 x^{2}$
c) $3 y$
d) 8 y
3. The value of $10-(3 x-2)$ is
a) $3 x-8$
b) 30-20x
c) $10-3 x$
d) $12-3 x$
4. The expression for sum of numbers p and q subtracted from their product is
a) $p+q-p q$
b) $p q-p+q$
c) $p q-(p+q)$
d) $p q+p-q$
5. The value of the expression $5 x^{2}-2$ when $x=3$ is
a) -12
b) 8
c) 43
d) 36
II. Fill in the blanks
6. Product of the monomials $4 p,-7 q^{2}$ and $-7 p q$ is $\qquad$
7. Area of a rectangle with length $4 a b$ and breadth $6 b^{2}$ is
8. Square of $3 x-4 y$ is $\qquad$
9. The value of $(a+b)^{2}-(a-b)^{2}$ is $\qquad$
10. Number of terms in the expression $a^{2}+b c \times d$ is $\qquad$
11. The side of the squre of area $81 y^{2}$ is $\qquad$
12. Sum of $2 \mathrm{x}-3$ and $5 \mathrm{x}^{2}+4$ is $\qquad$
13. $\left(\frac{-4}{3} p q^{2}\right) \times\left(\frac{-6}{8} p^{3} q^{2}\right)=$
14. Coefficient of y in $5 x^{2}-\frac{y}{3}$ is

## III. Match the following

15. $\mathrm{y}^{2}, \mathrm{y}^{3}, 2 \mathrm{y}^{4}$
i) Binomial
16. $\frac{-3}{y}+7$
ii) Unlike terms
17. $\mathrm{x}+\mathrm{z}-\mathrm{y}$
iii) Monomial
18. $125 \mathrm{~b}^{3}$
iv) Like terms
19. $p^{2} q, 4 q p^{2}, \frac{2}{3} p^{2} q \quad$ v) Trinomial

## IV. Do as directed

20. Find the product of $(3.5 p-0.2 q)$ and $(3.5 p+0.2 q)$
21. Find area of parallelogram of height $\frac{8}{9}$ yz and base $\frac{27}{40} \mathrm{xy}$ respectively.
22. Solve $(5 x-3)(5 x-2)$ using suitable identity.
23. Expand the following using identities.
a) $(0.4 p+1.2 q)^{2}$
b) $(x+5)(x+4)$
c) $\left(2 \mathrm{~m}-\frac{3}{2} \mathrm{n}\right)^{2}$
d) $\left(\frac{2}{3}+\frac{b}{4}\right)^{2}$
24. Add $8 x^{2}+7 x y-6 y^{2}, 4 x^{2}-3 x y+2 y^{2}$ and $-4 x^{2}+x y-y^{2}$
25. Simplify
a) $a^{2}\left(b^{2}-c^{2}\right)+b^{2}\left(c^{2}-a^{2}\right)+c^{2}\left(a^{2}-b^{2}\right)$
b) $x^{2}\left(x-3 y^{2}\right)-x y\left(y^{2}-2 x y\right)-x\left(y^{3}-5 x^{2}\right)$
c) $2 \mathrm{x}^{2}(\mathrm{x}+2)-3 \mathrm{x}\left(\mathrm{x}^{2}-3\right)-5 \mathrm{x}(\mathrm{x}+5)$
d) $\frac{7.87 \times 7.87-1.72 \times 1.72}{6.15}$
e) $\frac{3.7 \times 3.7+2.3 \times 2.3+2 \times 3.7 \times 2.3}{4.6 \times 4.6-3.4 \times 3.4}$
26. Using identities find
a) $48^{2}$
b) $96^{2}$
c) $231^{2}-131^{2}$
d) $97 \times 103$
e) $181^{2}-19^{2}$
f) $1.62 \times 1.62-0.38 \times 0.38$
g) $203^{2}-197^{2}$
h) $983^{2}-17^{2}$
27. Verify
$(11 p q+4 q)^{2}-(11 p q-4 q)^{2}=176 q^{2}$
28. If $x-y=9$ and $x y=16$ find the value of $x^{2}+y^{2}$
29. Multiply $x^{2}+2 y^{\text {by }} \mathrm{x}^{3}-2 x y+y^{3}$ and find the value of the product for $x=1$ and $y=-1$
