# HOLIDAY HOMEWORK

## For all sections of class 9th

Class IX English

1. Complete the following stories (150 words)
    a) A sailor took his pet monkey to sea trip - terrible storm over ship- a dolphin saved the monkey- took monkey on an island- monkey said he lie- left monkey alone with the island
    b) I had been over two hours waiting for the train , Ruhi was getting restless, Suddenly she…..
    c) Last Sunday I was watching TV, Suddenly I heard people shouting outside…..
2. Diary entry (5 days) with important news of that day 26TH DEC ,31ST DEC ,02ND JAN,10TH JAN
3. Make a chart of tenses with one example
4. Revise the syllabus covered from October to December for PT 2 Exams.

*Note – Work to be done in stapled bunch of papers only, No need to make file.

## Subject :- Hindi कक्षा 9वी अ

1. निबंध लेखन- विज्ञापनों का बढ़ता प्रभाव, कंप्यूटर का महत्व, विद्यार्थी और अनुशासन |
2. पत्र लेखन _मोहल्ले की सफाई की बदहाल स्थिति की ओर ध्यान आकर्षित कराते हुए सफाई निरीक्षक को पत्र लिखिए |
3. परिश्रम का महत्व बताते हुए अपने छोटे भाई को पत्र लिखो |
4. दो अपठित गद्यांश एवं पद्यांश की पुनरावृति कीजिए| करवाए गए पाठ्यक्रम की पुनरावृति करना

Subject :- MATHS

Solve the following questions:

1. Prove that Parallelograms on the same base and between the same parallels are equal in area.

2. ABCD is a parallelogram, AE ⊥ DC and CF ⊥ AD. If AB = 16 cm, AE = 8 cm and CF = 10 cm, find AD.
3. If E,F,G and H are respectively the mid-points of the sides of a parallelogram ABCD, show that ar (EFGH) =1/2ar (ABCD)
4. P and Q are any two points lying on the sides DC and AD respectively of a parallelogram ABCD. Show that ar (APB) = ar (BQC).

5. A farmer was having a field in the form of a parallelogram PQRS. She took any point A on RS and joined it to points P and Q. In how many parts the fields is divided? What are the shapes of these parts? The farmer wants to sow wheat and pulses in equal portions of the field separately. How should she do it?
6. Show that a median of a triangle divides it into two triangles of equal area.

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7. Show that the diagonals of a parallelogram divide it into four triangles of equal area.
8. D, E and F are respectively the mid-points of the sides BC, CA and AB of a $\Delta$ ABC. Show that
   (i) BDEF is a parallelogram. (ii) ar (DEF) = 1/4ar (ABC)
   (iii) ar (BDEF) =1/2ar (ABC)
9. D and E are points on sides AB and AC respectively of $\Delta$ ABC such that ar (DBC) = ar (EBC). Prove that DE || BC.
10. XY is a line parallel to side BC of a triangle ABC. If BE || AC and CF || AB meet XY at E and F respectively, show that ar (ABE) = ar (ACF)
11. Diagonals AC and BD of a trapezium ABCD with AB || DC intersect each other at O. Prove that ar (AOD) = ar (BOC).
12. ABCD is a trapezium with AB || DC. A line parallel to AC intersects AB at X and BC at Y. Prove that ar (ADX) = ar (ACY).
13. Prove that Equal chords of a circle subtend equal angles at the centre.
14. Suppose you are given a circle. Give a construction to find its centre.
15. If two equal chords of a circle intersect within the circle, prove that the segments of one chord are equal to corresponding segments of the other chord.
16. If two equal chords of a circle intersect within the circle, prove that the line joining the point of intersection to the centre makes equal angles with the chords.
17. If a line intersects two concentric circles (circles with the same centre) with centre O at A, B, C and D, prove that AB = CD.
18. A chord of a circle is equal to the radius of the circle. Find the angle subtended by the chord at a point on the minor arc and also at a point on the major arc.
19. $\angle$ABCD is a cyclic quadrilateral whose diagonals intersect at a point E. If $\angle$DBC = 70°, $\angle$ BAC is 30°, find $\angle$BCD. Further, if AB = BC, find $\angle$ECD.
20. Prove that a cyclic parallelogram is a rectangle.
21. Construct the angles of the following measurements:
   (i) 30° (ii) 15° (iii) 75° (iv) 105° (v) 135°
22. Construct a triangle PQR in which QR = 6cm, Q = 60° and PR – PQ = 2cm.
23. Construct a triangle XYZ in which Y = 30°, Z = 90° and XY + YZ + ZX = 11 cm.
24. Construct a right triangle whose base is 12cm and sum of its hypotenuse and other side is 18 cm.
25. A triangular park ABC has sides 120m, 80m and 50m . A gardener *Dhania* has to put a fence all around it and also plant grass inside. How much area does she need to plant? Find the cost of fencing it with barbed wire at the rate of Rs 20 per metre leaving a space 3m wide for a gate on one side.
26. The sides of a triangular plot are in the ratio of 3 : 5 : 7 and its perimeter is 300 m. Find its area.
27. Sanya has a piece of land which is in the shape of a rhombus. She wants her one daughter and one son to work on the land and produce different crops. She divided the land in two equal parts. If the perimeter of the land is 400 m and one of the diagonals is 160 m, how much area each of them will get for their crops?
28. A triangle and a parallelogram have the same base and the same area. If the sides of the triangle are 26 cm, 28 cm and 30 cm, and the parallelogram stands on the base 28 cm, find the height of the parallelogram.
29. A floral design on a floor is made up of 16 tiles which are triangular, the sides of the triangle being 9 cm, 28 cm and 35 cm.Find the cost of polishing the tiles at the rate of 50p per $cm^2$.
**30.** A field is in the shape of a trapezium whose parallel sides are 25 m and 10 m. The non-parallel sides are 14 m and 13 m. Find the area of the field.

## Winter Holiday Home Work

## Class 9th Science

1. Revision work for P.T 2 from chapters 4,11,12,14,15.
2. Practice diagrams for the above said chapters.
3. Make atleast 10 diagrams in project file and also paste pictures of scientists related to chapters 4and12. Revise activity tables given in book L No.4,11,12,14,15.
4. Write and learn important terms from above said chapters.
5. Write and learn atleast 10 MCQ from each lesson.

# HOLIDAYS HOME WORK (WINTER BREAK) 2019-20

## CLASS IX SST

1 Prepare a scrapbook/PPT on different historical buildings (atleast 15) from history text book and write at least ten sentences about it.

2 Learn the back exercise of the topics covered after half yearly examination

3 Prepare at least 15 mcq's from the topics covered after half yearly examination.

4 Fill the following places in the political map of India

A Five rivers of India

B Five mountain ranges

C All the states of India

D Three National Parks ,

E Note down the temperature of 15 days during winter break

F Show in the map of india different type of vegetation found in our country.