AJMANI INTERNATIONAL SCHOOL
Summer Holiday Home Work 2017-18
Class : IX

English

1. **Reading** : Novel Characters:

   (i)   Jim, The narrator   (ii)   Haris

   (iii)   George   (iv)   Montmorency, The Dog

   Novel Book – Pg 128

   Chapter Wise Q/Ans from 1 to 10

2. **Writing** : **Do it in a separate notebook**

   - Meanings of difficult words of Novel.

   - Question & answers.

   - Characters Sketches.

3. **Language** : **Do it in Language copy**

   - **Diary Entry**

   (i)   You are Ramesh / Veena. You have got the news of your selection as an officer in the army. Record your feelings in your diary in about 150 words.

   - **Story Writing:** Write a short story in about 150-200 words about a villages, who saved the life of an old man who had fallen in the village well.

   - **Article Writing:** (a) Saving our Environment   (b)   Say 'No' to plastic.

   - Learn all the questions and answers of fiction and poetry.

Hindi

1. पत्रलेखन ---- अपनें भाई के विवाह के समस्त आयोजनों का उल्लेख करते हुए अपने विदेशी मित्र को पत्र लिखकर उसे विवाह समारोह में आमंत्रित कीजिए।

2. निबन्ध लेखन––– विद्यार्थी जीवन में अनुशासन का महत्व।

3. प्रतिवेदन––– अपने विद्यालय के वार्षिकोत्सव पर प्रतिवेदन तैयार कीजिए।

4. गद्यांश, काव्यांश, कृतिका तथा व्याकरण के अंतर्गत सभी पाठ याद करें।
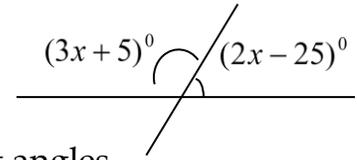
Mathematics

1. Find five rational numbers between $\dfrac{3}{5}$ and $\dfrac{2}{3}$

2. Find nine rational numbers between 0 and 0.1

3. Express $0.\overline{001}$ as a fraction in simplest form.

4. Find an irrational number between $\dfrac{1}{7}$ and $\dfrac{2}{7}$

5. Represent the following on number line:-

   (i) $\sqrt{5}$ (ii) $\sqrt{7}$ (iii) $\sqrt{4.3}$

6. If a and b are rational numbers and $\dfrac{2+\sqrt{3}}{2-\sqrt{3}} = a + b\sqrt{3}$. Find the value of a and b.

7. If $x = 3 + \sqrt{8}$, find the value of $\left(x^2 + \dfrac{1}{x^2} \right)$

8. Find the value of $\left(\dfrac{81}{16}\right)^{\frac{-3}{4}} \times \left(\dfrac{64}{27}\right)^{\frac{-1}{3}}$

9. Find a zero of the polynomial of the following:-

   (i) $p(x) = x - 3$ (ii) $q(x) = 3x + 2$

10. Find the remainder when polynomial $f(x) = 4x^3 - 12x^2 + 14x - 3$ is divided by $(2x - 1)$

11. Show that $(x + \sqrt{5})$ is a factor of the polynomial $f(x) = x^3 + x^2 + 3x + 115$.

12. Find the value of 'a' for which $(x - a)$ is a factor of the polynomial

    $f(x) = x^5 - a^2 x^3 + 2x + a - 3$.

13. Factorize the following:-

    (i) $a^2 + b - ab - a$ (ii) $6ab - b^2 + 12ac - 2bc$

    (iii) $\sqrt{3}x^2 + 11x + 6\sqrt{3}$ (iv) $x^4 - 3x^2 + 2$

14. Factorize : $a^3 + 27b^3 + 8c^3 - 18abc$

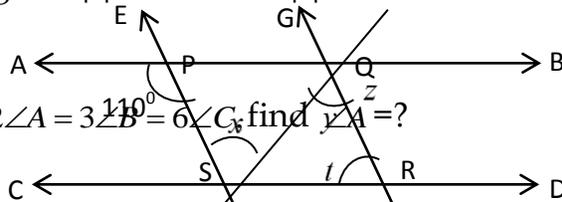15. If $(x^{100} + 2x^{99} + k)$ is divisible by $(x+1)$, then find the value of k.

16. Find the coefficient of x in the expansion $(x+5)^3$

17. Find the value of x in the fig.

$(3x+5)^0$ $(2x-25)^0$

18. Prove that bisectors of the angles of a linear pair are at right angles.

19. In the given fig. AB||CD and EF||GH. Find the values of x, y, z, t

E   G
A ←   P   Q   → B
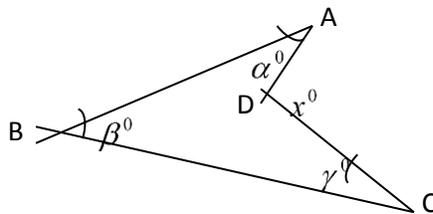 110^0 z
20. In a $\triangle ABC$, if $2\angle A = 3\angle B = 6\angle C$ find $\angle A$ =?
          S t R
C ←   → D

21. In a $\triangle ABC$, $\angle A + \angle B = 65^0$ and $\angle B + \angle C = 140^0$. Find the measure of each angle of the triangle.
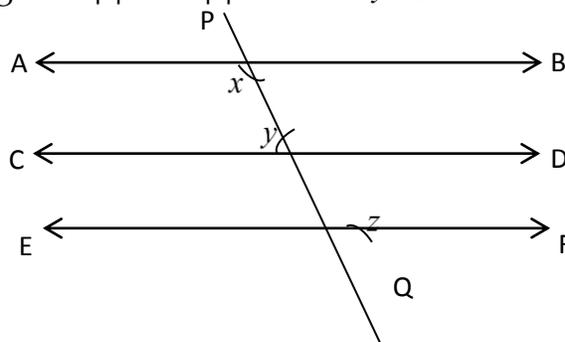
22. In a $\triangle ABC$, the bisector of $\angle B$ and $\angle C$ intersect each other at point O. Prove that

$$\angle BOC = 90^0 + \frac{1}{2}\angle A$$

23. In the given fig. Prove that $x = \alpha + \beta + \gamma$

                              A
                       α^0
                    D x^0
     B β^0
                    γ^0
                              C

24. In the given fig. AB || CD || EF and $y:z = 3:7$. Find x.

          P
A ←   → B
     x
          y
C ←   → D

          z
E ←   → F
          Q

25. Draw the lines X'OX and Y'OY are axis on the plane of a paper and plot the following points:-

(i) A(5,3)   (ii) B(-3,2)   (iii) C(-5,-4)

26. Draw the graph of the equation $y = 3x + 2$

27. Draw the graph of the equation $y = 2x$

28. Find the area of ΔOAB with O(0,0), A(4,0) and B(0,6)

29. The three vertices of a rectangle ABCD are A(2,2), B(-3,2) and C(-3,5). Plot these points on a graph paper and find the coordinates of D. Also Find the area of rectangle ABCD.

30. The sides of a rectangle are in the ratio 5:12:13 and its Perimeter is 150cm. Find the area of a triangle.

31. The area of an equilateral triangle is $81\sqrt{3}$ cm². Find its height.

32. Find the area of a parallelogram ABCD in which AB=14cm, BC=10cm and AC=16cm. ($\sqrt{3}$ =1.73)

33. Using Heron's formula find the area of ΔABC in which BC=13cm, AC=14cm and AB=15cm.

34. Find the product of $(a - b - c)(a^2 + b^2 + c^2 + ab + ac - bc)$

35. If $x^3 + mx^2 - x + 6$ has $(x - 2)$ as a factor and leaves a remainder r when divided by $(x - 3)$, find the values of m and r.

S.St.

Very Short Answer type questions :

1. How was the French society divided before revolution?
2. Why was Bastille hated by the people?
3. What was directory?
4. Name the seven states in the seven sisters?
5. Name the neighbouring countries of India.
6. Name the states through which Tropic of Cancer passes.

Short Answer type questions :

7. Who was Lech Walesa? What was he famous in Poland?

8. Describe some reforms of Salavdor Allende childe?

9. Which freedom are usually taken away when a democracy is overthrown by the military?

10. Name some non- farming activities taking place in village Palampur.

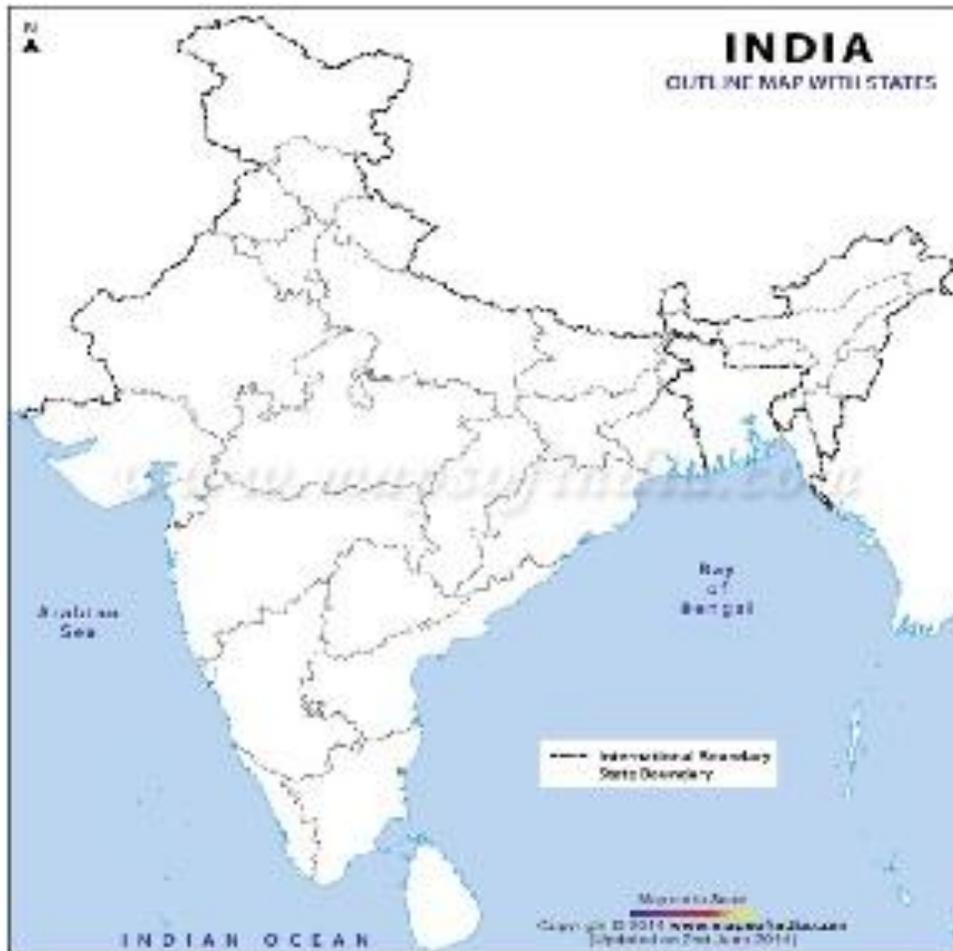11. What is the modern farming method? Explain its drawbacks.

Long Answer type questions:

12. Give some (five) arguments against democracy.

13. The sun rises two hours earlier in Arunachal Pradesh as compared to Gujarat in the west but the watches show the same time. How does this happen?

14. What did the following symbols convey in the declaration of rights?

    (i)   The broken chain   (ii)   The bundle of rods of fasces

    (iii)   Snake biting its tail to form a ring   (iv)   The winged woman

    (v)   Red Phrygian cap

Map Work:-

15. On an outline map of India, locate the followings:

(i)   Rann of Kachchh   (ii)   Gulf of Khambat

(iii)   Palk Strait   (iv)   Gulf of Mannar

(v)   Andaman & Nicobar Islands   (vi)   Kanyakumari

INDIA
OUTLINE MAP WITH STATES

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Physics : Worksheet

1. Do the derivation of three equation of motion by Graphical and Algebraic Method both.

2. In the given velocity- time graph

   (i) What type of motion is represented by the graph AB, CD and DE?

   (ii) Calculate acceleration from A to B and C to D.

   (iii) Displacement covered from A to B.

   (iv) Displace covered from 10 Sec to 25 Sec.

3. A ball is thrown vertically upward with a velocity of 30m/sec. Calculate the time taken to reach maximum height.

4. Two stones are thrown vertically upwards simultaneously with their initial velocities u_1 and u_2 respectively. Prove that heights reached by them would be in the ration of $u_1^2 : u_2^2$ (Assume upward acceleration to be $-g$ and downward acceleration to be $+g$)

5. Obtain a relation for the distance travelled by an object moving with a uniform acceleration in the internal between 4th and 5th second.

6. An object staring from rest travels in first 2 sec and $160m$ in next 4 sec. What will be the velocity after 7 sec from the start.

Chemistry
Chapter 1 – Matter in our surroundings

Very Short Answer type questions :

7. What is meant by the statement that "matter is particulate in nature"?

8. Name the property of gases that help aquatic plants and animals to survive in water.

9. Name the two gases which are supplied in compressed form in bones and hospitals.

10. What is common between all the three states of matter?

11. Name the two phenomenon's which give the evidence that pesticide are in motion.

Short Answer type questions :

12. Give the two factors which determine the rate of diffusion.

13. Rahul added a small quantity of common salt to water taken in graduated cylinder. ON dissolution there was no detectable change in lever of water. Explain why is it so?

14. How space between constituent particle & kinetic energy differ in three states of water?

15. What causes evaporation to take place?

16. In hot summer day, Ritika & Raghav are wearing cotton & nylon clothes respectively. Who do you think would be more conformable & why.

17. The surrounding becomes pleasantly warm when water in the lake starts freezing in cold countries. Give reason.

18. Ice appears colder to mouth than water ay 0°c? Give reason.

19. On suffering from fever which will lower down the body temperature ice or ice cold water? Why?

20. Why we feel cool after doing vigorous exercise?

21. Why clothes take more time to dry up in rainy season.

Biology

1. Write activity number 1,2,3,4 and 5 in your lab manual.

2. Draw the diagram of following.
   (i) A fish farming tank.
   (ii) A beehive framed.
   (iii) A table showing some communicable disease of cattles.

3. Make a cart showing different agricultural practices.

Arts

1. Craft – Any one thing from waste material

Foundation of Information Technology

- Complete all questions- answers & exercises of Chapter 3,4 and Learn Chapters from 1 to 4.