ARMY PUBLIC SCHOOL
FATEHGARH
HOLIDAY HOME WORK 2017-18
CLASS IX

SCIENCE

1. Solve each question from textbook exercise of all chapters taught.
2. Draw a neat and clean diagram of animal and plant cell.
3. Solve 20 numerical based on chapter- Motion.

MATHS

Q.1 If R_1 & R_2 are the remainders when $x^3+2x^2-5ax-7$ and $x^3+ax^2-12ax+6$ are divided by (x+1) & (x-2) and if $2R_1+R_2=6$, then find the value of a.

Q.2 If a+b+c=9 and ab+bc+ca=26 then find the value of $a^3+b^3+c^3-3abc$.

Q.3 If x-y=4 and xy=21 then find x^3-y^3 .

Q.4 What must be subtracted from $4x^4-2x^3-6x^2+x-5$ so that the result is exactly divisible by $2x^2+x-27$.

Q.5 Find the value of (6.5×6.5-2×6.5×3.5×+3.5×3.5).

Q.6 Find the value of $(a+b)^3-(a-b)^3+6a(a^2-b^2)$.

Q.7 Factorize $x^2+xy-2xz-2yz$.

Q.8 Simplify: $\dfrac{(a^2-b^2)^3+(b^2-c^2)^3+(c^2-a^2)^3}{(a-b)^3+(b-c)^3+(c-a)^3}$.

Q.9 Simplify: $(\sqrt{5}-4)(\sqrt{5}+4)$.

Q.10 Write 14.2777777……….. in $\dfrac{P}{Q}$ form .

Q.11 Arrange $\sqrt[3]{4}$, $\sqrt[4]{5}$, $\sqrt[4]{3}$ in ascending order.

Q.12 Find the value of 'a' and 'b' if $\dfrac{3-\sqrt{5}}{3+2\sqrt{5}}$ = $a\sqrt{5}-b$.

Q.13 Find the value of $(\sqrt{2}+\sqrt{3})^2$.

Q.14 The possible value of 'p' and 'q' for the equation $\dfrac{\sqrt{3}-1}{\sqrt{3}+1}$ =p + $q\sqrt{3}$.

Q.15 If x =1 + $\sqrt{2}$ then find the value of x + $(\dfrac{1}{x})$.

Q.16 Find the value of $\left(\dfrac{\sqrt{6}+\sqrt{3}}{\sqrt{8}-\sqrt{3}}\right)\left(\dfrac{\sqrt{6}-\sqrt{3}}{\sqrt{8}+\sqrt{3}}\right)$.

Q.17 Rationalize $\dfrac{2+\sqrt{4}}{3-2\sqrt{5}}$.

Q.18 Find the value of $\sqrt{U^{-1}\times V}\sqrt{V^{-1}\times W}\sqrt{W^{-1}\times U}$.

Q.19 Find the value of $\left(\dfrac{1024}{32}\right)^{\frac{4}{5}}$.

Q.20 Find the value of $\dfrac{(a^{x+y})^3(a^{y+z})^3(a^{z+a})^3}{(a^x a^y a^z)^6}$.

Q.21 If $2^{X-4}\times 5^{2X-13}=100000$ then find the value of x.

Q.22 Simplify

(i) $\dfrac{3}{\sqrt{3}+1}+\dfrac{5}{\sqrt{3}-1}$

(ii) If $\dfrac{\sqrt{7}-1}{\sqrt{7}+1}+\dfrac{\sqrt{7}+1}{\sqrt{7}-1}=a+b\sqrt{7}$, find the value of a and b.

Q.23 Find the value of x if $\left(\dfrac{3}{5}\right)^{x}\times\left(\dfrac{5}{3}\right)^{2x}=\dfrac{125}{27}$.

Q.24 Simplify $\dfrac{(25)^{\frac{3}{2}}\times (243)^{\frac{3}{5}}}{(16)^{\frac{5}{4}}\times (27)^{\frac{4}{3}}}$

Q.25 Visualize the following by successive magnification method.

(1) 7.825

(2) 3.377

Q.26 Show :-

(1) $\sqrt{7.7}$ on a number line and justify it.

(2) $\sqrt{4.3}$ on a number line and justify it.

Q.27 Do the following questions of exercise 2.5

1-(iv,v)   2-(ii,iii)   4-(iv,vi)   5-(ii)   6-(iii,iv)

7-(ii,iii)   8-(iii,v)   10-(I,ii)   12, 13, 14-(I,ii) 15-(i) 16-(ii)

SOCIAL SCIENCE

Geography

- Map work
1. The island groups of India lying in the Arabian Sea and the Bay of Bengal.
2. The countries constituting Indian subcontinent.

3. The state through which the tropic of cancer passes.
4. The northern most latitude in degrees.
5. The southernmost latitude of the Indian mainland in degrees.
6. The eastern and the western most longitude in degrees.
7. The place situated on the three seas
8. The straight separating Srilanka from India
9. The union territories India

Project activity

1. Find out the longitudinal and latitudinal event of your state.
2. Collect information about the "Silk Route". Also find out the new development which are improving communications on routes in the region of high altitude

Map skills

on an outline map of India show the following

1. Mountain and hill ranges – The Karakorum, The Zaskar The patkai bum the jaintia the vindhya range the aravali and the cardamom hills.
2. Peaks k2 kanchanjunga nanga parbat and the anaimudi
3. Plateaus chotanagpur and malma
4. The Indian desert,western ghats lakshdweep island.

History

Write the role of any two in about 100 to 150 words

1. Mirabeau
2. Olympe de gouges
3. Robespierre
4. Napoleon Bonaparte
   Learn all the chapters and write in revision copy two times.

ENGLISH

1. Read chapter I-VIII of the novel Gulliver's Travels .
   i.   Write the characters of the following in separate notebook_____
   (i)   Gulliver
   (ii)   Emperor of Lilliput
   (iii)   King of Lilliput
   (iv)   King of Blefesco
   (v)   Flimnap
   (vi)   Skyresh Bolgolam

(vii) Redressal

(viii) Features of Lilliputians

ii. Also write answers of the questions in given in the class.

2. Select any five days of the vacations and write a daily routine for each about what happened or what you did on these five days. Use Past Tense.
3. Write an article on the following topics in about 120 word-
   i. Social Networking Sights
   ii.Mobile phones: a modern utility or a health hazard

4. Make sentences to show the difference between the following pair of words: then-than, there-their, quiet-quite, Weather-Whether, Advice-Advise, Practice-Practise.
5. Change the following sentences into
   (i)   Present Continuous
   (ii)   Present Perfect
   (iii)   Present Perfect Continuous (Use Time Expressions since & for)
   (iv)   Simple Past
   (v)   Past Continuous
   (vi)   Past Perfect
   (vii)   Past Perfect Continuous (Use Time Expressions since & for)

   1. I go for morning walk everyday.
   2. I love to play with toys.
   3. He draws a nice picture.
   4. John always works hard.
   5. Sunita sings sweetly.

   6. Read and revise lessons taught in the class.

1—वर्ण विच्छेद कीजिए —

मनुष्य, पहचान, कवयित्री, स्वाभाविक, परीक्षा, चट्टान ,वैज्ञानिक, कलाभिज्ञ ,देशभक्ति ,विच्छेद, सन्तुलन, चादनी ,सत्यनिष्ठा, आर्यावर्त, हिन्दुस्तान

2—अनुच्छेद लिखो–

    1—मेक इन इंडिया   2—समाचार पत्र का महत्व

3—अपने मित्र को स्वच्छता अभियान का महत्व बताते हुए पत्र

4—आपके चाचाजी ने नया घर खरीदा है उन्हें बधाई देते हुए पत्र

5—स्वर्श और संचयन के पाठ याद करें।

6. FIT

      1. Draw the diagram given below on a chart paper or a file sheet

      2. Write 50 full forms of the short forms given in the entire book

      3. Draw the following chart on the chart paper.