



Carmel Convent Higher Secondary School

Kunjwani, Jammu

Academic Session (2018-19)
Grade-XII

Holiday Research Work

Student's Name: _____

Date: _____



Dear Students,

We know that when you think of summer, you always think of fun filled activities such as; playing for longer hours, exploring new places, visiting your grandparents, bonding with your cousins ,watching movies etc. But Studies are important for us to gain knowledge, and sports are important to keep active, healthy and learn various personality traits such as leadership, team spirit, responsibility and many more. With this thought in mind, this year, the school has designed your holiday homework to keep you actively and fruitfully engaged during your summer break.

Some Tips to make this holiday special:

- Make a list of books you've always wanted to read or find a list of best-sellers and give yourself plenty of reading for the summer.
- Take an educational vacation with your parents.
- Learn to play an instrument.
- Learn a new language.
- Visit some museums.
- Have family dinner together and spend time with your grand parents.
- Play outdoor games and have lots of fun.

Bring all your homework when you come back to school after the vacation. Though we will miss you and your chatter and laughter definitely, we wish you a **HAPPY AND HAPPENING SUMMER BREAK!**

Enjoy and take care of yourself!

With Love

Class Teacher

In case of any help if you are stuck, please feel free to contact us on the given number or email id's:-

School No:0191-2480717

For any feedback & suggestions please mail us at carmeljkkunjwani@gmail.com



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Some useful tips for Summer Vacation:

Some do's and don'ts during summer vacation:

Do's:

- Eat home -cooked food and consume fruits & vegetables timely.
- Drink plenty of water.
- Eat fruits with high water content such as watermelon, muskmelon, oranges and cucumber as they are fit for summers.
- Play outdoor games.
- Always carry water for to prevent illnesses and dehydration.
- Maintain proper hygiene; take showers twice a day.
- Wear light colour cotton clothes, wear shades, cap and carry umbrella before stepping out.
- Study for an hour everyday to keep in touch with your studies as well. Discover your creativity through Research worksheets.



Don'ts

- Avoid having junk food and fizzy drinks.
- Do not watch too much TV or be addicted to mobiles.
 - Do not wear synthetic clothes.
 - Do not stand directly under the sun.



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English

1. In the world of technology everyone is busy in their own work they send messages through mobiles and forget to write letters. In order to understand the format of letter writing and feel the joy of getting reply through post, write a letter to your friend telling her about your summer vacations and ask her to give response only through post.
2. Every week send an e-mail to your any close relative with whom you are not in regular contact and ask him/her about his/her health so that a sense of connectivity develops and sweetens the relationships. This activity will also improve your e-mail writing skill and you will be able to learn the format of e-mail for your exams.
3. Suppose your school is going to organize a Christmas Carnival, draw a beautiful poster giving the details of the event. This activity will improve your poster making skills so that you will be able to learn the pattern of poster writing for exams.
4. Suppose your school requires an English teacher and you are the office in-charge, publish an advertisement in newspaper. Give all the mandatory details. Through this you will learn the format of advertisement.
5. Read first three chapters of book again and learn all the textual questions, exercises and vocabulary.
6. Switch off your mobile for 1 hour daily in the evening and spend that time with your parents and family only, and collect some values and beautiful memories that stays with you forever.
7. Spend some time in the lap of Mother Nature, everyday go for a morning Walk and enjoy beautiful view of sunrise. This activity will develop your aesthetic sense.
8. Do meditation every day for at least 15 minutes. It improves your concentration power.
9. Write a paragraph (120-150 words) on your experience of above mentioned last three activities (include pt.no. 6, 7 & 8).



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Accountancy

1.Revise and Practice:-

I. Book-II (All Units)

II. Book-I (Units 1&2)

2.Tests:-

I. Book-II (24 July)

II. Book-I (30 July)

Business Management

1.Revise and Learn:-

I. Book-I (All Units)

2. Tests:-

I. Units I,II,III & IV (26 July)

II. Units V,VI,VII & VIII (28 July)



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Economics

Instructions:- Complete the Homework on a separate file

Please write neatly and carefully.

Think and Do:-

- 1.Explain with an example the relation between scarce resources with the problem of choice and how it impacts the allocation of resources. With a suitable example.
- 2.Explain the Theory of Inflationary and Deflationary Gap.
- 3.Highlight and show the shifting /rotation of Production Possibility Curve under these conditions:-
 - i)Change in Technology
 - ii)Efficient Technology for the production of two commodities.
- 4.If you are a consumer , What are the 3 factors on which the consumer depends help in the purchase of a commodity and how is it helpful.
- 5.Show with the help of an example One Commodity Case and Two Commodity Case the conditions of Consumers Equilibrium using Marginal Utility Analysis.
- 6.What do you understand with the concept of Indifference Curve with three properties.
- 7.Is it possible to relate the determinants of Demand with the Demand Function. Elaborate and explain the statement.
- 8.Relate the concept of Price Elasticity of Demand and Total Expenditure.
- 9.Define Market and its forms.
- 10.What are the basis required for classification of Market?



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Mathematics

1. Prove that $\tan^{-1} \frac{2}{11} + \tan^{-1} \frac{7}{24} = \tan^{-1} \frac{1}{2}$.
2. Prove that $\tan^{-1} \frac{1}{7} + \tan^{-1} \frac{1}{13} = \tan^{-1} \frac{2}{9}$.
3. Find the principal value of $\sin^{-1} \left(\frac{1}{2} \right)$
4. Find the domain of $\cos^{-1} (2x - 1)$.
5. Find the principal value of $\tan^{-1} (1)$
6. Evaluate $\tan^{-1} \left(\tan \frac{\pi}{3} \right)$
7. Evaluate $\cot^{-1} \left(\cot \frac{\pi}{3} \right)$
8. Evaluate $\sin \left(\cot^{-1} \frac{\pi}{3} \right)$
9. Prove that $\sec^2 \left(\tan^{-1} 2 \right) + \operatorname{cosec}^2 \left(\cot^{-1} 3 \right) = 15$
10. Find the value of the expression $\sin \left[\cot^{-1} \left\{ \cos \left(\tan^{-1} 1 \right) \right\} \right]$

Revise and practice :-

Chapter No.3 and Chapter No's 4, & 2

Revision Test on 24/7/2018 (Chapter No. 3, 4 ,)

Revision Test on 28/7/2018 (chapter No.2)



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Science

Biology

Q: Wetlands are breeding places of mosquitoes. Even then they are very important for maintaining ecological balance. Why?

Q: What are ecosystem services? What lessons do they give to human society?

Q: Since October 2, 2014, “swachh bhara abhiyaan” has been launched.

- Write your views on this initiative giving justification.
- As a biologist, give two problems that you may face while implementing the programme in your locality.
- Suggest two remedial methods to overcome these problems.

Q: Public all over India is very much concerned about the deteriorating air quality in large parts of north India. Alarmed by this situation, the residents welfare association of your locality organized an awareness programme entitled “bury not burn”. They invited you being a biology student to participate.

- How would you justify your arguments that promote burying and discourage burning?
- With the help of flow charts, one for each practice, depict the chain of events that follow.

Q: What is gause principle of competitive exclusion and competitive release? How would they help you to plant your carrier?

Q: What are desert adaptations of animals? What value is learnt from them?

Regular objective questions will be sent by the concerned teacher in order to enhance your competitive skills by snap homework on weekly basis.

(It's better to boost up your brain using your books and not peeping into networking sites to draw readymade answers)



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PHYSICS

ANSWER THE FOLLOWING QUESTIONS IN YOUR CLASS WORK

Q1. Name the various known electromagnetic radiations. State the range of their frequencies, wavelength and source of origin.

Q2. How electromagnetic waves are produced? Write any four characteristics of EM wave.

Q3. What is p-n junction diode? Explain (i) forward biasing (ii) reverse biasing of a p-n junction diode. With the help of circuit diagram, explain the use of this device as a half wave rectifier.

Q4. Explain briefly the use of a junction transistor as an oscillator.

Q5. What is wave front? Explain three types of wave front?

Q6. What is interference of light? Derive conditions for constructive and destructive interference. Explain the statement, "light added to light can produce darkness".

Q7. Derive lens maker formula for concave lens. A concave lens has same radii of curvature for both sides and is made of material of refractive index 1.6. it is immersed in a liquid of $\mu=1.4$. Calculate ratio of focal lengths of lens in air and liquid.

Q8. Where should an object be placed from converging lens of focal length 20cm, so as to obtain an real image of magnification 2?

Q9. Define total internal reflection. State its conditions. How do optical fibers transmit light without absorption?

Q10. Prove that $\mu = \frac{1}{\sin c}$, where c is the critical angle.

Q11. Give briefly the theory of amplitude modulation. Draw frequency spectrum of an amplitude modulated wave.

Q12. Draw a block diagram for data transmission.

Q13. Explain the propagation of T.V signals. Find the relation between coverage distance and height of transmitting antenna.



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Q14. What is a message signal? What are its types? Give examples.

Q15. Why does the electrical conductivity of earth's atmosphere increase with altitude?

Chemistry

Answer the following question.

1. Write practical's on your chemistry practical files:
 - (a) To prepare crystals of mohr salt.
 - (b) To prepare crystals of potash alum.
2. Write a note on:
 - (a) Analgesics
 - (b) Antipyretics
 - (c) Antibiotics
 - (d) Antiseptics
 - (e) Disinfectants
 - (f) Anti-fertility drugs
 - (g) Antacids
 - (h) Antihistamines
 - (i) Anti-depressant drugs
3. What are polymers? How we can classify polymers on the basis of:
 - (a) Source of origin
 - (b) Structure
 - (c) Nature of molecular forces



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(d) Mode of synthesis

4. Write preparation, properties and uses of following polymers:

(a) Polythene

(b) Polystyrene

(c) Teflon

(d) Polyvinylchloride

(e) Nylon-66, nylon-6

(f) Phenol-formaldehyde resins (Bakelite)

(g) Rubber (natural and synthetic)

5. Project work: to determine the presence of adulterants in common food stuffs such as red chilly, pepper, turmeric *etc.*



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E.V.S

Q: Make a project report on:

Heading: biotechnology and its applications

Sub-headings

- Meaning of biotechnology
- Important applications
- Benefits
- Limitations

Q: “Project Tiger is one of the successful operations as a mean of conserving wildlife in our country”. Give reasons in support to the statement.

Q: As an eco club member of your school, what ways would you suggest to manage the biodegradable waste generated by students in the classroom?

Q: Read the chapters and prepare for class discussion:

- Roll no. 1-3: population dynamics
- Roll no. 4-6: human population
- Roll no. 7-9: population regulation
- Roll no. 10-12: human population control
- Roll no. 13-15: threats to ecology
- Roll no. 16-18: conservation



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Public Administration And Political Science

I. Indian Constitution

Make a formulation of Indian Constitution by referring different books and write a detailed note on constituent assembly

2. Make a detailed and thorough study of fundamental rights and fundamental duties.

3. Taking help of reference books write down the powers and functions of

The president

The Prime Minister

The parliament

The governor

The Chief Minister

Judiciary

4 find out and make a note on evolution of civil services in India, it's recruitment process, recruitment agencies UPSC, JKPSK and it's training PROCESS.

5.NITI AAYOG - Make Notes

Role, composition and functions

- National Development Council

-finance commission

-National Information centre

6.E-GOVERNANCE

Write the concept and meaning, make a study on application of e-governance in J and K centre, Khidmat and हिमायत.

Study: L.No Globalisation

L.No 9- Natural Resoures



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