



OXFORD PUBLIC SCHOOL, RANCHI
SUMMER HOLIDAY HOMEWORK (2019-20)
CLASS-XII

SUBJECT-ENGLISH

1. Write an application to the Principal of your school, requesting him to grant you five days leave owing to your elder brother's marriage. Word limit - 150.
2. "Road rage" has become very common these days. Write a letter to the Police Commissioner, Ranchi giving your views on the problem and its solutions in 150 words.
3. Being librarian of your school, place an order to the Manager of Bharti Bhawan Publication for textbooks of Physics, Maths and Chemistry, 20 each before 30th May, 2019. See that they deliver in time and in good condition. Give other relevant information accordingly in 150 words.
4. Write an article in 200 words on "Problems Caused by Stray Animals".
5. Day by day, lavish weddings are becoming more fashionable for lower middle class families. It is a curse. Write on this topic in 200 words.
6. "What I Want To Be In Life" – write on this topic in 200 words.

SUBJECT-MATHEMATICS

1. Chapter – MATRICES (NCERT)
 - (a) Ex – 3.1 – 10 Questions
 - (b) Ex – 3.2 – 22 Questions
 - (c) Ex – 3.3 – 12 Questions
 - (d) Ex – 3.4 – 18 Questions
 - (e) Misc. Ex – 15 Questions
2. Chapter – DETERMINANTS (NCERT)
 - (a) Ex – 4.1 – 08 Questions
 - (b) Ex – 4.2 – 16 Questions
 - (c) Ex – 4.3 – 05 Questions
 - (d) Ex – 4.4 – 05 Questions
 - (e) Ex – 4.5 – 18 Questions
 - (f) Ex – 4.6 – 16 Questions
 - (g) Misc. Ex – 19 Questions

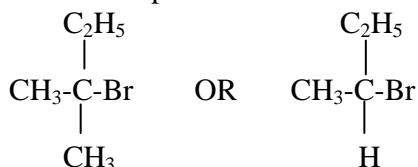
TOTAL – 164 QUESTIONS

SUBJECT-PHYSICS

1. Solve the questions of **Chapter-1 (Electric Field and Force)** of NCERT Book.
2. Complete the practical copy experiment – 01, 02.
3. Complete the activity copy – activity -1.
4. Solve the following questions of NCERT examples chapter-1, Q: -1,2,3,4,5,6,7,14,15,16,17,18,19.

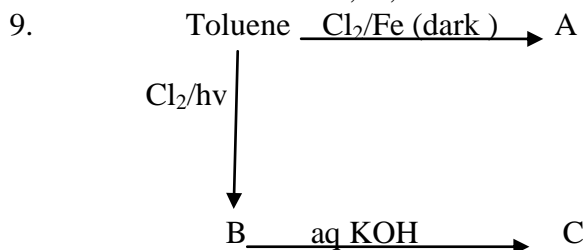
SUBJECT-CHEMISTRY

1. Which compound will show racemisation if undergoes nucleophilic substitution reaction. Why?



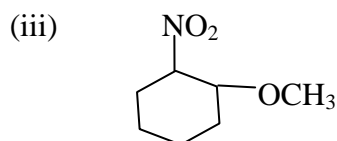
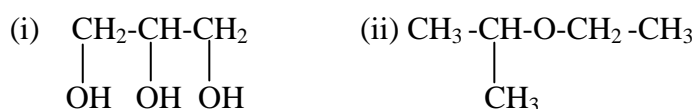
2. 2-Bromopentane with alc KOH gives Pent-1-ene and Pent-2-ene. Predict the major product giving Suitable reason for your answer.
3. What is Freon-12? What does 12 represent? Give its use.
4. 2-Methylbutane on monochlorination gives four different monochloro products. Write the structures of all four products and predict the main product among them. How many product(s) are chiral?
5. An isomer of Pentane (C₅H₁₂) on monochlorination gives three isomeric monochlorides as products. Write the structures of the products and identify the main product. How many of them are chiral?

6. Two moles of (+)-2-Bromobutane is mixed with one mole of (-)-2-Bromobutane to form a mixture. Is the mixture optically active or inactive? Support your answer with suitable reason.
7. Give reasons for the following: -
- Haloarenes are reactive towards electrophilic substitution reactions, but less reactive towards nucleophilic substitution reaction.
 - In haloarenes, electrophilic reaction occurs at ortho and para position although halogen is electron withdrawing.
8. a) Arrange the following compounds in the increasing order of their reactivity towards nucleophilic reaction :
2-Nitrochlorobenzene, 2,4-Dinitrochlorobenzene, 3-Nitrochlorobenzene, chlorobenzene.

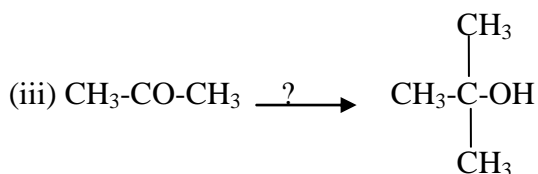
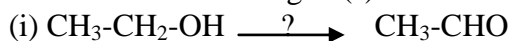


Identify A, B and C as main products.

10. (i) Arrange Water, Ethanol and Phenol in increasing order of acidity.
(ii) The C-O bond in Phenol is slightly stronger than that in Methanol. Why?
(iii) In Kolbe's reaction, instead of Phenol, phenoxide ion is treated with CO_2 . Why?
11. Write IUPAC names of the following compounds.

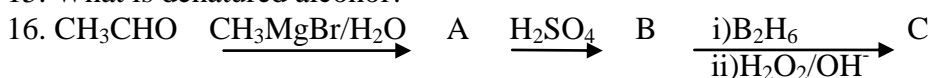


12. How would you bring the following transformations?
- Phenol to Aspirin
 - Cumene to Propanone
 - Phenol to Benzoquinone
13. Name the suitable reagent(s) for the following conversions.



14. In Kolbe's reaction, o-isomer is the main product. Why?

15. What is denatured alcohol?



Write the structures of A, B and C as main products.

17. Do all solved examples, unsolved (intext questions) and exercise questions of chapter 9 and 10 (except questions based on properties of Ethers).

SUBJECT-BIOLOGY

1. Enumerate the differences between asexual and sexual reproduction. Describe the types of asexual reproduction exhibited by unicellular organisms.
2. Do all the gametes formed from a parent organism have the same genetic composition (identical DNA copies of the parental genome)? Analyse the situation with the background of gametogenesis and provide or give suitable explanation.
3. Although sexual reproduction is a long drawn, energy-intensive complex form of reproduction, many groups of organisms in Kingdom Animalia and Plantae prefer this mode of reproduction. Give atleast three reasons for this.
4. Differentiate between (a) oestrus and menstrual cycles; (b) ovipary and vivipary. Cite an example for each type.
5. Starting with the zygote, draw the diagrams of the different stages of embryo development in a dicot.
6. What are the possible types of pollinations in chasmogamous flowers. Give reasons.
7. With a neat, labelled diagram, describe the parts of a mature angiosperm embryo sac. Mention the role of synergids.
8. Draw the diagram of a microsporangium and label its wall layers. Write briefly on the role of the endothecium.
9. Embryo sacs of some apomictic species appear normal but contain diploid cells. Suggest a suitable explanation for the condition.
10. A human female experiences two major changes, menarche and menopause during her life. Mention the significance of both the events.
11. How many spermatozoa are formed from one secondary spermatocyte?
12. Where does the first cleavage division of zygote take place?
13. Corpus luteum in pregnancy has a long life. However, if fertilisation does not take place, it remains active only for 10-12 days. Explain.
14. What is foetal ejection reflex? Explain how it leads to parturition?
15. Except endocrine function, what are the other functions of placenta.
16. Why doctors recommend breast feeding during initial period of infant growth?
17. What are the events that take place in the ovary and uterus during follicular phase of the menstrual cycle.
18. Give a schematic labelled diagram to represent oögenesis (without descriptions)
19. What are the changes in the oogonia during the transition of a primary follicle to Graafian follicle?
20. What are the Assisted Reproductive Techniques practised to help infertile couples? Describe any three techniques.
21. Discuss the mode of action and advantages/disadvantages of hormonal contraceptives.
22. STDs are a threat to reproductive health. Describe any two such diseases and suggest preventive measures.
23. Do you justify the statutory ban on aminocentesis in our country? Give reasons.
24. Enumerate and describe any five reasons for introducing sex education to school-going children.

SUBJECT-COMPUTER SCIENCE

1. WAP to create a dictionary of n (entered by user) elements having employee name as key and his/her salary as its value. Print the complete dictionary along with the name of the employee having highest salary.
2. WAP to enter a number and define a function ISPRIME() that accepts the number and return 1 if the number is prime else return 0.
3. WAP to enter a list of numbers and define a function ROTATE() that accept the list and rotate each number to its next position i.e. 1st→2nd, 2nd→ 3rd, ..., last to 1st.
Example : if L= [2, 5, 1, 8], then after program L = [8, 2, 5, 1]
4. WAP to enter a list of characters and define a function REPLACE() that accept the list and replace each character by adding square of its index.
Example : if L = ['A', 'B', 'C', 'D'], then after program L = ['A', 'C', 'G', 'L']
5. WAP to enter a list of words and define a function FIRSTOFF() that accept the list and create a new list with first character removed from each word.
Example : if L = ['BOOKS', 'ARE', 'BEST'], then after program N = ['OOKS', 'RE', 'EST']

6. WAP to enter a list of numbers and define a function BSORT() that accept the list and print the list in ascending order using Bubble Sort method.
7. WAP to define a recursive function FACTORIAL() that accept a number and return the factorial of that number.
8. WAP to define a recursive function FIBO() that accept a number and return the Fibonacci series upto that number of term.
9. WAP to define a recursive function GCD() that accept two numbers and return the HCF of them.
10. WAP to define a recursive function REVERSE() that accepts a string along with its length and return the reverse of it.
11. WAP to define a function CHANGE() that accepts a list of string and print the longest among them.
Example : if L = ['NEW', 'THINGS', 'ARE', 'FUN', 'TO', 'LEARN'], then the output should be THINGS
12. WAP to define a function SERIES() that accept a number and print the following series upto n term.
0,7,26,63,124,n term.
13. WAP to enter a nested tuple of integers and print the sum of each nested element.
14. WAP to calculate area of a square, circle and rectangle according to the menu.
15. WAP to enter a list of words and define a function CONVERT() that converts first letter of each word to capital.

SUBJECT-ECONOMICS

1. Prepare a report in 800 to 1000 words on the following topics: -
 - (a) Goods and Services Tax Act and its impact on Gross Domestic Product.
 - (b) Human Development Index.
 - (c) Organic Farming.
2. Giving reasons, classify the following economic variables into **STOCK OR FLOW**: -

(a) Capital	(b) Savings	(c) Gross Domestic Product	(d) Wealth
(e) Depreciation	(f) Exports	(g) Deposits in bank	(h) Profit
3. Giving reasons, classify the following into **Intermediate Goods** and **Final Goods**: -

(a) Machines purchased by a dealer of machine.	(b) A car purchased by a household.
(c) Furniture purchased by a school.	(d) Chalks, dusters purchased by s school.
(e) Computers installed in an office.	(f) Mobile sets purchased by a mobile dealer.
(g) Expenditure on maintenance of an office building.	(h) Expenditure on improvement of a machine in a factory.
4. How will you treat the following while estimating Domestic Products of a country? Give reasons for your answer: -
 - (a) Profits earned by foreign companies in India.
 - (b) Salaries of Indians working in the Russian embassy in India.
 - (c) Profits earned by a branch of State Bank of India in Japan.
 - (d) Purchase of goods by foreign tourists.
 - (e) Gifts given by an employer to his employee in Diwali.
5. Explain the problem of Double Counting in estimating National Income.
6. How will you treat the following while estimating the National Income of a country. Give reasons for your answers: -
 - (a) Government Expenditure on street lighting.
 - (b) Sale of an old house.
 - (c) Salaries received by Indian Employees working in American Embassy in India.
 - (d) Pension paid to retired employees.
 - (e) Electricity consumed by a firm.
7. Explain a Circular Flow in a two sector model.
8. Distinguish between a Real Flow and a Nominal Flow.

SUBJECT-PHYSICAL EDUCATION

1. What do you mean by knock-out tournament?
2. Draw the fixture of 21 teams on knock-out basis.
3. Describe the method of preparing fixture in knock-out tournament in detail.
4. What do you mean by tournament? Briefly explain the importance of tournament.
5. What is league tournament? Explain the types, merits and demerits of league tournament.

6. What do you mean by intramurals? Mention the significance of intramurals for school children.
7. What do mean by extramural? Mention the significance of extramural.
8. Discuss the objectives of extramural in detail.
9. Enlist the committees for organizing sports events and explain any 10 committees in detail.
10. What do you mean by specific sports program? Explain about health runs and run for unity in detail.
11. Define and classify fixtures. Draw a league fixture for 16 teams.
12. What do you mean by combination tournament? Discuss league cum knock-out and knock-out cum league with the help of examples.
13. Explain the pre, during and post game responsibilities of officials of various committees for organizing a sports tournament smoothly.
14. Being the captain of the school, prepare five committees with their responsibilities to conduct one-day run for health race.
15. What do you mean by planning? Explain the objectives of planning in sports in detail.

SUBJECT-FINE ARTS

1. Mention the names of any five painters of the Rajasthan School of miniature painting included in your course of study whom you like most.
2. Which are the two ragamala paintings by sahibdin from mewar included in your course of study?
3. Describe the main characteristics or features of Rajasthani School of miniature painting?
4. Write an essay on the origin and development of Rajasthani School of miniature painting.
5. Why do you like or dislike the Rajasthani painting 'Bani-Thani'? Explain.
6. Appreciate any one of the Rajasthani miniature paintings based on the following facts:
 - (f) Name of artist/sub-school
 - (g) Medium and technique
 - (h) Subject matter and
 - (i) Composition" group scene (200 words)
7. Write a short note on the Rajasthani Painting 'Chaugan players';
8. Write a short note on the Rajasthani Painting " Bharat meets Rama at Chitrakuta
9. Write a short note on the Rajasthani painting 'Raja Anirudha Singh Hara,
10. Write a note on the Rajasthani painting 'Maru Ragini' Painted in circa 1660 A.D.

SUBJECT-HINDI

1. ' वनों का विनाश - भयावह दुष्परिणाम ' विषय पर 400 शब्दों में एक निबंध लिखें।
2. अपने क्षेत्र के पुलिस-आयुक्त को क्षेत्र की समस्याओं से मुक्ति हेतु एक शिकायत पत्र लिखिए।
3. ' कम उम्र में बच्चों पर बस्ते का बढ़ता बोझ ' विषय पर एक आलेख लिखें।
4. हरिवंशराय ' बच्चन ' एवं महादेवी वर्मा का जीवन एवं साहित्यिक परिचय को असाइनमेंट पेपर में सजाकर लिखें।

Note:- For Hindi/Sanskrit download font-' Mangal'.
