

**RAMAKRISHNA SR. SECONDARY SCHOOL,
HOLIDAY'S HOME WORK
ENGLISH XII – 2017-18**

1. You are Secretary, MIG Flats Welfare Association, Amritsar. Write a notice to be circulated to the members of the Association requesting them to attend a meeting to discuss the parking of vehicles of the residents.
2. Repeated earthquakes in India and elsewhere have resulted in unprecedented damage and destruction to both life and property. Educating people on the precautions to be taken is the need of the hour. Prepare a poster in not more than 50 words for creating this awareness.
3. In a bid to educate people about the harmful effects of cigarette smoking, the Govt. of India has been taking serious steps to prevent it. A few years ago, it ordered all cigarette manufacturing units to insert a statutory warning on cigarette packs. Now, it is considering censorship of all cigarette smoking scenes in Indian cinema. Write a letter to the Editor of a National Daily giving your own views.
4. Sh Narendra Modi is a dynamic leader rendering a great service to the country. Write an article giving your views on the topic : “The success story of Sh Narendra Modi as the Prime Minister” to be published in your school magazine.
5. Describe Mr Marvel’s visit to Iping on Whit-Monday.
6. Comment on Marvel’s desire to be relieved of the Invisible Man’s control.
7. What was written in the newspaper about the Invisible Man?
8. Revise and learn all the questions done in class.

NOTE : To be done in CW/HW note book.

HOLIDAY'S HOME WORK

XII Physics

- Q1. Do Q's of Chapter 1 to 5 from Board Exam' Q. paper from 2008-2016 (Delhi set, All India- set, foreign set)

Q1. Write out the amino acid sequences that would be translated when the following mRNA molecules combine with a ribosome:

- a) A-U-G-C-A-U-A-G-A-A-G-G-C-C-A-UU-G-U-A
- b) C-A-U-G-U-U-U-C-U-U-U-A

Q2. Write out the mRNA sequence that would be transcribed from the following strand of DNA, and the amino acid sequence that would be translated when the mRNA combines with a ribosome:

T-A-C-A-A-G-T-A-C-T-T-G-T-T-T-C-T-T

Q3. List out any two hemoglobin based genetic disorders.

Q4. If the non dividing cell lining of the intestine of mouse contain 9.2 picogram of DNA per nucleus. What mass of DNA you expect to find in

- (a) An unfertilized egg
- (b) In a sperm
- (c) 18 cells produced by mitosis from the zygote.

Q5. Suppose the two guanosine (g) nucleotides in question 2 are changed to cytosine nucleotides.

- a) What kind of mutation is this?
- b) What kind of mutation would result from removal of the G nucleotides from DNA in question 2.

Q6. Provide experimental evidence for semi conservative mode of replication of DNA.

Q7. Suggest and explain any three assisted reproductive technologies(ART) to an infertile couple.

Q8. Describe endosperm development in coconut. Why healthy coconut is considered a healthy source of nutrition.

Q9. Name an alga that reproduces asexually through zoospores . why are these reproductive units so called?

Q10. Geitonogamous flowering plants are genetically autogamous but functionally cross pollinated. Justify.

Q11. Make model as per your topic.

Q12. Make investigatory project on the topics discussed in the class.

Summer Holiday Home Work

Class XII A

Subject – Computer Science [C++]

Note: Q3 to Q6 to be done in C.W. / H.W. Register

1. Revise all chapter taught in class till now and prepare yourself for Periodic Test 1 Exam .
2. Submit Project file [As per given in the class] on 6th July.
3. Define a class named ADMISSION in c++ with the following descriptions:

Private members :

AD_NO	integer (Ranges 10 – 2000)
NAME	Array of characters (String)
CLASS	Character
FEES	Float

Public members :

Function Read_Data() to read an object of ADMISSION type.

Function Display() to display the details of an object.

Function cal() to get the annual fees of a student.

4. Define a class BOOK with the following specifications :

Private members of the class BOOK are

BOOK NO	integer type
BOOKTITLE	20 characters
PRICE	float (price per copy)
TOTAL_COST()	A function to calculate the total cost for N number of copies where N is passed to the function as argument.

Public members of the class BOOK are

INPUT() function to read BOOK_NO, BOOKTITLE, PRICE

PURCHASE() function to ask the user to input the number of copies to be purchased. It invokes TOTAL_COST() and prints the total cost to be paid by the user.

Note : You are also required to give detailed function definitions.

5. Consider the following declarations and answer the questions given below:

Class country

{ int H;

protected :

int S;

```

Public : void Input(int);
Void Output ( );
};
Class State : Private Country
{ int T;
  Protected:
  Int U;
Public : void Indata (int, int);
  Void Outdata( );
};
Class city: Public State
{ int M;
  Public :
  Void Display ( void);
};

```

- (i) Name the base class and derived class of the class state.
- (ii) Name the data members that can be accessed from function Display().
- (iii) Name the member functions which can be accessed from the object of class city.
- (iv) Is the member function Output () accessible by the objects of the class state?

6.

a) Compare any two Switching techniques.

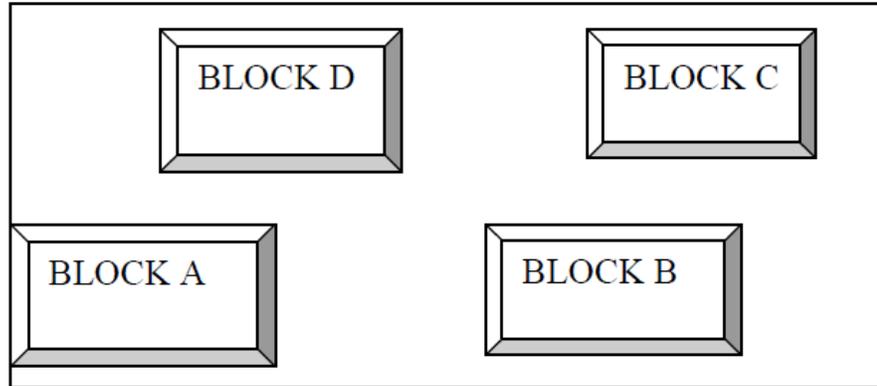
b) Which of the following is not a Client Side script:

- | | |
|---------------|------------------|
| (i) VB Script | (ii) Java Script |
| (iii) ASP | (iv) PHP |

c) If someone has hacked your Website, to whom you lodge the Complain?

d) What do you mean by IP Address? How is it useful in Computer Security?

e) ABC Systems Organisation has set up its new center at Jabalpur for its office and web based activities. It has 4 blocks of buildings as shown in the diagram below:



Center to center distances between various blocks

Block A to Block B	80 m
Block B to Block C	250 m
Block C to Block D	50 m
Block A to Block D	190 m
Block B to Block D	125 m
Block A to Block C	90 m

Number of Computers

Block A 25

Block B 50

Block C 150

Block D 10

- i) Suggest a cable layout of connections between the blocks.
 - ii) Suggest the most suitable place (i.e. block) to house the server of this organization with a suitable reason.
 - iii) Suggest the placement of the following devices with justification
 - (i) Repeater
 - (ii) Hub/Switch
 - iv) The organization is planning to link its International Office situated in Mumbai , which wired communication link , you will suggest for a very high speed connectivity?
- f) What is meant by Trojan Horse and Virus in terms of computers?
- g) What was the role of ARPANET in the communication network ?

Subject: Painting

Make two still life and two compositions with three human figures:

Use Water colours or oil pastel colours.

Size-Half Cartridge sheet.

Subject: Physical Education

Prepare a physical education file on Athletics and Yoga on given topics:

Athletics: Track events, Field events

Yoga : Asanas

CHEMISTRY

Do all the questions in Chemistry Notebook:

Q1. Sodium crystallises in a bcc unit cell Calculate the approximate number of unit cells in 9.2g of sodium? (Atomic Mass of Na=23u)

Q2. The density of Chromium metal is 7.2 g cm^{-3} . If the unit cell has the edge length of 289pm, determine the type of unit cell. [Atomic mass of Cr=52u,Na= $6.02 \times 10^{23} \text{ mol}^{-1}$]

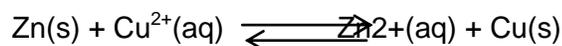
Q3. Analysis shows that nickel oxide has the formula $\text{Ni}_{0.98}\text{O}_{1.00}$. What fractions of nickel exists as Ni^{2+} & Ni^{3+} ?

Q4. Calculate the depression in the freezing point of water when 10g of $\text{CH}_3\text{CH}_2\text{CHClCOOH}$ is added to 250 g of water. $K_a = 1.4 \times 10^{-3}$, $K_f = 1.86\text{K Kg mol}^{-1}$

Q5. 100g of liquid A [Molar mass 140g/mol] was dissolved in 1000g of liquid B [Molar mass 180g/mol]. The vapour pressure of pure liquid B was found to be 500 torr. Calculate the vapour pressure of pure liquid A and its vapour pressure in the solution if the total vapour pressure of the solution is 475 torr.

Q6. Solution A is obtained by dissolving 1g of urea in 100g of water and solution B is obtained by dissolving 1g of glucose in 100g of water. Which solution will have a higher boiling point and why?

Q7. Calculate the equilibrium constant K for the reaction at 298K



Given: $E^\circ_{\text{Zn}^{2+}/\text{Zn}} = -0.76\text{V}$, $E^\circ_{\text{Cu}^{2+}/\text{Cu}} = +0.34\text{V}$

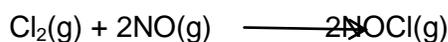
Q8. Define Molar conductivity of a substance and describe how for weak & strong electrolytes, molar conductivity changes with concentration of solute. How is such change explained.

Q9. The measured resistance of a conductance cell containing $7.5 \times 10^{-3}\text{ M}$ solution of KCl at 25°C was 1005 ohms. Calculate specific conductance & molar conductance of the solution.

Q10. The rate of a reaction increases to four times when the temperature is raised from 300K to 320K. Calculate the energy of activation of this reaction assuming that it does not change with temperature.

Q11. A first order reaction is 20% complete in 20 minutes. Calculate the time it will take the reaction to complete 80%.

Q12. The following experimental data were collected for the reaction:



Expt.	Initial Conc. of Cl_2 (mol/L)	Initial Conc. of NO_2 (mol/L)	Initial rate $\text{Mol L}^{-1} \text{s}^{-1}$
1	0.010	0.010	1.20×10^{-4}
2	0.010	0.030	10.8×10^{-4}
3	0.020	0.030	21.6×10^{-4}

Calculate the rate equation of the reaction.

Q13. What is Van Arkel method of refining metal? Explain by giving an example.

Q14. What is Mond's process.

Q15. Describe the principle of froth floatation method. What is the role of stabilizers and a depressant? Give 1 example each.

Q16. What are nucleic acids? Mention their two important functions.

Q17. What is the difference between nucleoside & nucleotide?

Q18. What is Denaturation of Proteins. What type of bonding helps in stabilizing the α -helix structure of proteins.

Q19. How is cast iron different from pig iron?

Q20. Why is zinc not extracted from zinc oxide through reduction using CO?

