

HOLIDAY HOMEWORK

CLASS XII

BIOLOGY

1. Differentiate between: i) Oestrus cycle & menstrual cycle
ii) Gametogenesis & embryogenesis
iii) Zoospores & Zygote
iv) Seasonal breeders & continuous breeders
2. What are zoospores, gemmules and conidia?
3. Which part of a flower develop into : i) Embryo
ii) Seed
iii) Fruit
4. Define external fertilization. Write its disadvantages
5. Offspring formed due to sexual reproduction have better chance of survival, why?
6. Draw labeled diagram of conidia of penicillium

7. PART OF FLOWER

HAPLOID / DIPLOID

Ovary	_____
Anther	_____
Egg	_____
Pollen	_____
Male gamete	_____
Zygote	_____

8. Describe post fertilization changes in a flower
9. List the three major events of sexual reproduction of an organism and mention what events occur in each of them
10. What is meant by vegetative propagation? What are vegetative propagules? Name the vegetative propagules in the following plants,

Oxalis, ginger, mint, potato, water hyacinth, agave, Bryophyllum, chrysanthemum

Chemistry

- 1) Solve and learn Intext and exercise questions of chapter -II (Solutions) including numericals
- 2) Study thoroughly the important concepts from class XI chemistry, the list of which already given in the class.

PHYSICS

1. Two point charges 0.2 C and 0.4 C are placed 0.1 m apart . Calculate the electric field at midpoint between the charges and at a point on the line joining the charges 0.05 m away from 0.2 C ?
2. Two point charges $+16\mu\text{C}$ and $-9\mu\text{C}$ are placed 8 cm apart in air. Determine the position of the point at which the resultant field is zero?
3. The sum of two point charges is $7\mu\text{C}$.They repel each other with a force of 1 N when kept apart 30 cm apart in free space .Calculate the value of each charge.
4. Two point charges placed at a distance r in air exert a force F on each other .At what distance will these charges experience the same force in a medium of dielectric constant k ?
5. Define electricfield intensity at a point. Write its SI unit . If it is a vector quantity what is its direction?
6. Define electric flux .Write its SI unit . Is it a scalar or a vector quantity.
7. Define electric dipole moment .Write its SI unit .If it is a vector specify its direction.
8. What is an electric field line ? Write down the important properties of electric field lines.
9. Draw the electric field lines due to (a) point positive charge (b) an electric dipole
10. State and express Coulombs law in vector form
11. State and explain Gauss theorem
12. Prove the inverse square law dependence of electric field intensity due to a point charge using concept of electric field line.
13. Derive an expression for the electric field at a point due to a point charge
14. Derive expression for the electric field at a point along the (a) axial line and (b) equatorial line of an electric dipole
15. Explain what happens when an electric dipole is placed in an external (a) uniform electric field (b) non uniform electric field.

SUBJECT : COMPUTER SCIENCE

1. Write program using while loop to display numbers from 10 to 100 ?
2. Write program using Do-while segment to print the sum of first hundred natural numbers?
3. Write a program to find whether a given string is palindrome or not?
4. Explain the usage of break with switch structure ?
5. (a) Give the output of the following program :

```
#include<iostream.h>
#include<iostream.h>
main()
{
clrscr();
for (int i=1;i<5;++i)
cout<<i;
cout<<i;
getch();
return 0;
}
```

- (b) What is the output of the following statements :

```
int i=20;
cout<<i<<i++<<++i;
```

6. Write a program to print the digits of a given number using function?

Eg: if number is 153 then output must be

```
3
5
1
```

7. Write a Program to print the format using function ?

```
1 2 3 4 5
2 3 4 5
3 4 5
4 5
5
```

8. Write a program to print odd numbers between 1 to n in descending order using funtion?
 9. Write a program to print fibonacci series up to a given number using function?
 10. x=10, y=5, z=11 Evaluate the following (answer whether True/False) :
(x>=y)||!(z==y)&&(z<x)
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हिन्दी -XI

अपठित गद्यांश - Select two three paragraph from your text book and frame 5 questions and give their answers

अपठित पद्यांश - Select two three stanza from your text book and frame 5 questions and give their answers

निबंध - खेलकूदका महत्व

भारत २०२०