# Summer assignment 2017-18 Class XI

Subject:- CHEMISTRY

Write the structures of the following organic compounds

1. 1-Chloropropane
2. 1-Bromobutane
3. 2-Chloropropane
4. 1-Chloro2-methyl propane
5. 1-Chloro2, 2-dimethyl propane
6. 1, 1, dichloroethane
7. 1, 2, dichloroethane
8. 1-Bromo-2,2-dimethylpropane
9. 2-Bromo-2-methylpropane
10. 1-Chloro-2-methylbenzene or 2-Chlorotoluene
11. Chlorophenylmethane
12. 2-Chloro-3-methylpentane
13. 1-Chloro-4-ethylcyclohexane
14. 4-tert. Butyl-3-iodoheptane
15. 1,4-Dibromobut-2-ene
16. 1-Bromo-4-sec. butyl-2-methylbenzene.
17. 4-Bromopent-2-ene
18. 3-Bromo-2-methylbut-1-ene
19. 4-Bromo-3-methylpent-2-ene
20. 1-Bromo-2-methylbut-2-ene
21. 1-Bromobut-2-ene
22. 3-Bromo-2-methylpropene
23. 2-Chloro-3-methylpentane
24. 1-Chloro-4-ethylcyclohexane
25. 4-tert-Butyl-3-iodoheptane
26. 1,4-Dibromobut-2-ene
27. Methanol
28. Propan-1-ol
29. Propan-2-ol
30. Butan-1-ol
31. Butan-2-ol
32. 2-Methylpropan-1-ol
33. 2-Methylpropan-2-ol
34. Propane -1, 2, 3-triol
35. Methoxymethane
36. Ethoxyethane
37. 1-Methoxypropane
38. Methoxybenzene(Anisole)
39. Ethoxybenzene(Phenetole)
40. 1-Phenoxyheptane
41. 2-Methoxypropane
42. 3- Methylbutoxybenzene
43. 1,2-Dimethoxyethane
44. 2-Ethoxy--1,1-dimethylcyclohexane
45. 4-Chloro-2,3-dimethylpentan-1-ol
46. 2-Ethoxypropane
50. 1-Phenylpropan-2-ol
51. 3,5-Dimethylhexane –1, 3, 5-triol
52. 2,3 – Diethylphenol
53. 1 – Ethoxypropane
54. 2-Ethoxy-3-methylpentane
55. Cyclohexylmethanol
56. 3-Cyclohexylpentan-3-ol
57. Cyclopent-3-en-1-ol
58. 3-Chloromethylpentan-1-ol.
59. 3-Chloromethyl-2-isopropylpentan-1-ol
60. 2, 5-Dimethylhexane-1,3-diol
61. 3-Bromocyclohexanol
62. Hex-1-en-3-ol
63. 2-Bromo-3-methylbut-2-en-1-ol
64. Methanal
65. Ethanal
66. 2-Methylpropanal
67. 3-Methylcyclohexanecarbaldehyde
68. 2-Methoxypropanal
69. Pentanal
70. 3-Bromobenzaldehyde
71. Pentan-2-one
72. 2,4-Dimethylpentan-3-one
73. 2-Methylcyclohexanone
74. 4-Methylpent-3-en-2-one
75. 3-Hydroxybutanal
76. 2-Hydroxycyclopentane carbaldehyde
77. 4-Oxopentanal
78. Di-sec. butyl ketone
79. 4-Fluoroacetophenone
80. 3-Phenylpropanoic acid
81. 3-Methylbut-2-enoic acid
82. 3-Methylbutanal
83. *p*-Nitropropiophenone
84. *p*-Methylbenzaldehyde
85. 4-Methylpent-3-en-2-one
86. 4-Chloropentan-2-one
87. 3-Bromo-4-phenylpentanoic acid
88. Hex-2-en-4-ynoic acid
89. Ethanamine
90. Propan-1-amine
91. Propan-2-amine
92. N-Methylethanamine
93. N,N-Dimethylmethanamine
94. N,N-Diethylbutan-1-amine
95. Prop-2-en-1-amine
96. Hexane-1,6-diamine

47. 2,6-Dimethylphenol
48. 1-Ethoxy-2-nitrocyclohexane
49. 2-Methylbutan-2-ol

97. Aniline or Benzenamine
98. 2-Aminotoluene
99. 4-Bromobenzenamine

**Subject:- Physics**

1. E, m, l and G denote energy, mass, angular momentum and gravitational constant respectively. Determine the dimensions of $EL^2/m^5 G^2$
2. Find the dimensions of latent heat and specific heat?
3. Two resistances R1 = 100 ± & 3 and R2 = 200 ± & 4 are connected in series. Then what is the equivalent resistance?
4. If $x = at + bt^2$ where x is in meters and t is in seconds. What are the units of a and b?
5. (a) State which of the following are dimensionally current
   (i) Pressure = Energy per unit volume
   (ii) Pressure = Momentum · volume · time
   (b) The density of cylindrical rod was measured by the formula:- $P= 4m/\pi D^2 L$

Subject:- Biology

Q1. Draw the diagrams of following :-
a) Cross-section of a leaf
b) Human respiratory system
c) Sectional view of the human heart
d) Schematic representation of transport and exchange of oxygen and carbon dioxide
e) Excretory system in human beings
f) Structure of a nephron

Q2. Draw a table showing all the endocrine glands, their secretions and their roles in the Human body.
Q3. Prepare a report on Biodiversity of Rajasthan.
Q4. Explain how Punnet's square method help in finding the progeny probability of next generation.
Q5. Write a note on Mendle's life.
Q6. Explain the Natural resources and their Importance.
Q7. How Rain Water Harvesting can be used a measure of protection in areas with less water for irrigation?
Q8. Draw the diagrams of Eukaryotic and Prokaryotic cells and differentiate the same.
Q9. Write a note on Osmosis.
Q10. Prepare a project report on any topic of your interest in Biology.

**Subject:- English**

Q.1 Imagine you are Khushwant singh and your grandmother has died recently and you are assailed by the feeling of regret and guilt on having neglected her. Write a diary entry expressing your feeling.

Q.2 What is the theme and moral lesson of the story " The portrait of a lady".

Q.3 Define the literary device "oxymoron" in the poem of " A Photograph"

Q.4 With the help of the inputs given below, write a letter to the editor of a newspaper on the colossal wastage of food in the lavish Indian wedding.

1. Indian's spent life's saving on weddings

2. Wedding market in India is approximately, 150000 crores per year.

3. India also hosts one of the biggest armies of starving people in the world.

4. No wastage more condemnable than wastage of food.

5. Responsibility of the guests to limit the size of the servings according to their appetite.

Q.5 Occasional self-medication has always been part of normal living. The making and selling of drugs has a long history and is closely linked, like medical practice itself, with belief in magic. Only during the last hundred years or so, as the development of scientific techniques made it possible diagnosis has become possible. The doctor is now able to follow up the correct diagnosis of many illnesses-with specific treatment of their causes. In many other illnesses of which the causes remain unknown, he is still limited, like the unqualified prescriber, to the treatment of symptoms. The doctor is trained to decide when to treat symptoms only and when to attack the cause. This is the essential difference between medical prescribing and self-medication.

The advance of technology has brought about much progress in some fields of medicine, including the development of scientific drug therapy. In many countries public health organization is improving and people's nutritional standards have risen. Parallel with such beneficial trends are two which have an adverse effect. One is the use of high pressure advertising by the pharmaceutical industry which has tended to influence both patients and doctors and has led to the overuse of drugs generally. The other is emergence of eating, insufficient

sleep, excessive smoking and drinking. People with disorders arising from faulty habits such as these , as well as well from unhappy human relationships , often resort to self –medication and so add the taking of pharmaceuticals to the list .Advertisers go to great lengths to catch this market.

Clever advertising, aimed at chronic suffers who will try anything because doctors have not been able to cure them, can induce such faith in a preparation, particularly if steeply priced, that it will produce-by suggestion-a very real effect in some people .Advertisements are also aimed at people suffering from mild complaints such as simple cold and coughs which clear up by themselves within a short time.

These are the main reasons, why laxatives, indigestion-remedies, painkillers, cough-mixtures, tonics, vitamin and iron tablets, nose drops, ointments and many other preparations are found in quantity in many households. It is doubtful whether taking these things ever improves a person's health, it may even make it worse. Worse, because the preparation may contain unsuitable ingredients; worse because the taker may become dependent on them; worse because they might be taken excess; worse because they may cause poisoning , and worst of all because symptoms of some serious underlying cause may be asked and therefore medical help may not be sought. Self-diagnosis is a greater danger than self-medication.

## Questions

(A) On the basis of your reading of the above passage, make notes on it, in points only, using headings and sub-headings. Also use recognizable abbreviations, wherever necessary (Minimum four). Supply an appropriate title to it.

(B) Write a summary of the above passage in about 80 words.

PALLAVAN SCHOOL

CLASS - XI

SESSION - 2017-18

SUMMER ASSIGNMENT

Sub - Mathematics

1. Write the following sets in the roster form

(i) $\{x : x$ is an integer and $-3 \leq x < 7\}$

(ii) $\{x : x = \frac{n}{n+1}$, n is natural number less than $7\}$

(iii) $\{x : x$ is a two digit number, sum of whose digits is $9\}$

(iv) $\{x : x$ is a natural number which divides $45\}$

(v) $\{x : x$ is a positive prime number which divides $72\}$

2. Write the following sets in the set builder form

(i) $\{1\}$ (ii) $\{-1, 1\}$ (iii) $\{1, 7, 49, 343\}$

(iv) $\{1, 0\}$ (v) $\{1, 3, 5, 7, 9\}$

3. If $U = \{1, 2, 3, 4, 5, 6, 7, 8, 9, 10\}$, $A = \{1, 2, 3, 5\}$, $B = \{2, 4, 6, 7\}$ and $C = \{2, 3, 4, 8\}$; find

(i) $A'$ (ii) $B'$ (iii) $C'$ (iv) $(A-B)'$ (v) $(C-A)'$

(vi) $(B \cup C)'$ (vii) $(C \cap A)'$ (viii) $A \cup B \cup C$ (ix) $(A \cap B \cap C)'$

4. If A and B are two sets such that $n(A) = 150$ $n(B) = 250$ and $n(A \cup B) = 300$. Find $n(A \cap B)$.

5. In a group of 500 persons, 350 can speak Hindi 250 can speak English and 150 can speak both Hindi and English. Find the number of persons who can speak neither Hindi nor English.

6. (i) If $(x+y, x-y) = (1, 2)$ find $x$ and $y$.

(ii) If $(11, 3x-y) = (5x+2y, \frac{11}{2})$ find $x$ and $y$.

7. If $A = \{2,4\}$ and $B = \{1,3\}$ find $A \times B$, $B \times A$, $A \times A$ and $B \times B$. Is $A \times B = B \times A$ ?

8. If $A = \{a, b\}$ find the power set of $A \times A$.

9. Let $A = \{2, 3, 4, 5, 6, 7, 8, 9\}$ Let $R$ be the relation on $A$ defined by

$\{(x,y) : x \in A, y \in A$ and $x$ divides $y\}$.

Find (i) $R$ (ii) domain of $R$ (iii) range of $R$ (iv) $R^{-1}$

10. Find the domain and range of the following relations.

(i) $R = \{(1,3), (1,5), (1,7), (1,9)\}$

(ii) $R = \{(x,y) : x \in N, x < 6$ and $y = 4\}$