

DAYANAND ANGLO VEDIC PUBLIC SCHOOL, AIROLI
QUESTION BANK 2017-18
CLASS XII
SUBJECT: ENGLISH

Literature:

Answer the Questions in 40 words each.

- 1) What do the parting words of the poet and her smile signify?
- 2) What does the world of the slum children consist of?
- 3) What according to the poet is the only hope for the slum children?
- 4) What is the sadness that the poet refers to, in the poem Keeping Quiet?
- 5) What symbols from nature does the poet invoke to say that there can be life under apparent stillness?
- 6) What makes human beings love life despite troubles and sufferings?
- 7) Why is grandeur associated with the mighty dead?
- 8) What did Derry' mother think of Mr.Lamb?
- 9) How does M. Hamel pay a tribute to the French class?
- 10) Justify the title of the lesson, Lost Spring.
- 11) How did Douglas finally get rid of the fear he had, of water ?
- 12) Why did the crofter show the thirty Kroner to the peddler?
- 13) Why did the Peddler think that the world was a Rattrap?
- 14) Explain the duties that Gandhi told the court he was involved in.
- 15) How do we know that ordinary people too contributed to the freedom movement?
- 16) What impression do you form of Jansie?

Answer the Questions in 125 -150 words each.

- 1) How was the last lesson different from the usual lessons taught on other days? Describe the Last Lesson.
- 2) In what conditions do the bangle makers of Firozabad live? Why can't they come out of the state of the poverty?
- 3) Describe the efforts made by Rajkumar Shukla to persuade Gandhi to go to Champarn.
- 4) What does the title 'The Rattrap' symbolize ? Does the story advocate the theory of giving a second chance to those who commit mistakes in life? Elaborate.
- 5) How did the Champaran episode prove to be a turning point in Gandhi's life? Explain with reference to the lesson, Indigo.
- 6) Describe the efforts made by the Tiger King to achieve his target of killing hundred tigers.
- 7) What assessment do you make of Dr. Sadao's character, after reading the story 'The Enemy'?
- 8) Why do you think Jack refused to change the ending of the story as suggested by his daughter?
- 9) How did Mr Lamb's meeting with Derry become a turning point in his life?
- 10) What impression do you form of the people of 'Iping'?
- 11) Describe how the Invisible Man reveals himself.

- 12) Why was Roger Skunk's mommy angry with him? What did she finally tell him?
- 13) What forced Dr Sadao to be impatient and irritated with his patient?
- 14) What qualities of Mr Lamb attracted Derry to him?
- 15) How did Zitkala –Sa Forced to part with her long ,heavy hair? Howdishe feel at the end?
- 16) How did the tiger king meet his end?
- 17) Why do you think, was the Maharaja in danger of losing his throne?
- 18) .Reflecting on the story, what did you feel Evans' having the last laugh?
- 19) Give a pen portrait of the servants of Dr.Sadao.
- 20) How did Jo involve herself in Jack's story telling?
- 21) What did Derry' mother think of Mr.Lamb? Why did she refuse Derry going there?
- 22) Why did Governor think that Evans had no chance to escape?
- 23) What made Bama Shriek with laughter?

Writing Tasks:

1)You are Mohan /Monika .You have been invited by the Lions Club to act as one of the judges for a fancy dress competition for children, but due to a previous engagement, you cannot accept this invitation .Write a formal reply to the president of the club regretting your inability to accept the invitation.

2)You are Dr. Madhu, M.D. You are looking for an independent house in Ghaziabad on a reasonable rent for your residence-cum-clinic. Draft a suitable advertisement in not more than 50 words to be published in Hindustan Times, New Delhi. Your telephone no is 12341235.

3)Today the 24 hours television news channels give us instant news from every nook and corner of the world. But the fact remains that the importance of the newspapers remains intact. Write out a speech in 150-200 words, expressing your views on 'The Relevance of Newspapers'. You are Sunil/Sunita.

4)Write a letter to the Editor, 'The Hindu', Chennai, about rash and reckless driving by the people in your city, suggesting preventive measures. You are Kamal/Kanwar of 10, Mount Road,Vela Chery.

5)Every activity that man indulges in creates waste of some kind. Some of the waste can be recycled or reused. In fact the need of the hour is to conserve the earth's resources in all possible ways. Write an article on the topic 'Conservation, Need of the Hour' in 150-200 words. Your are Brinda, a keen environmentalist.

6)Today the 24 hours television news channels give us instant news from every nook and corner of the world. But the fact remains that the importance of the newspaper remains intact. Write an article in 150-200 words expressing your views on 'The Relevance of Newspapers'. You are Sunil/Sunita.

7). You are Mukesh/Mukta of Saket. You have been readings the news items on Nithari killing. Write a speech in about 150-200 words to be given in the morning assembly, stressing the need of keeping a close vigil on the anti-social element of the locality and taking care of young

children of the area so that they don't fall prey to bad characters.

8) Write a speech in about 150-200 words about the impact of revolution brought by information technology in India to be delivered in the morning assembly.

9) SAF Public School, Chandigarh is planning to take a group of 40 senior students to Shimla on an excursion during the summer vacation. Mr. Mohan Das, the Teacher-in-Charge of 'Excursions and Field Trips' writes a letter to JJ Tours and Travels, Chandigarh asking them to organize the tour. Write this letter giving details of preference such as dates of journey transport, accommodation etc.

10) Write a letter to the Editor, 'The Hindu', Chennai about rash and reckless driving by the people in your city, suggesting preventive measures. You are Kamal/Kanwar of 10, Mount Road Vela cherry.

11) You are Ram/Isha, Secretary of harmony Residents' Welfare Association, Karnal. Write a letter to the Editor of "the Herald" on the problem of frequent power failure faced by the people during the summer season in your locality, giving suitable suggestions to remove this problem.

DAYANAND ANGLO VEDIC PUBLIC SCHOOL, AIROLI
QUESTION BANK
SUBJECT – PHYSICAL EDUCATION
STD – XII

1. Write about different specific sports programmes.
2. Write notes on the following:
 - a) American Method
 - b) British Method
 - c) Intramural
 - d) Extramural
3. Elucidate the need of food supplements for children.
4. Draw a fixture of 19 teams using knockout tournament.
5. What is a balanced diet? Explain the components of diet.
6. What do you mean by macro and micro nutrients? Explain in brief.
7. Discuss what do you mean by nutritive and non-nutritive components of diet?
8. Describe what do you mean by anorexia and bulimia nervosa?
9. Discuss the role of diet on the performance of a sportsperson.
10. Elucidate about the various pitfalls of dieting in detail.
11. What do you mean food intolerance? Explain the causes, symptoms and management of food intolerance in detail.
12. What do you mean by food myths? & enlist it.
13. What do you mean by vitamins? Write in detail about vitamins.
14. Discuss the physiological factors determining 'strength' as a component of physical fitness.
15. Draw a flow chart of various committees & Write its responsibilities.
16. Participation in physical activity for a longer duration maintain functional fitness among aged population. Justify
17. What is League Tournament? Explain types of League Tournament.
18. Discuss long term effects of exercise on cardiovascular system.
19. Elucidate the reasons of low participation of women in sports and games.
20. Discuss in detail about Female Athlete triad.
21. Elucidate the gender differences in physical and physiological differences.
22. Keeping in view of the Indian Ideology, critically analyse the sociological aspect of women athlete in sports participation.
23. What do you mean by correct posture? Write advantages of correct posture.
24. Explain various types of postural deformities?
25. Discuss physical exercises as corrective measure of each deformities?
26. What do you mean by motor development? Explain the motor development in childhood.
27. What is weight training? Write its advantages and disadvantages.
28. Describe the factors affecting motor development?
29. Elucidate the causes of bad postures.
30. Elucidate physical and physiological benefits of exercise on children?

31. What do you mean by food supplement? Describe the precautions for taking food supplement.
32. Explain the following tests:
- (a) Harvard step test
 - (b) Sit and Reach test
 - (c) Chair stand test
 - (d) Arm Curl test
 - (e) Chair Sit and Reach test
 - (f) Back Scratch test
 - (g) Eight Foot up and go test
 - (h) Six Minute Walk test
 - (i) Rockport One Mile test
33. What do you mean by sports medicine? Discuss the aims of sports medicine in detail.
34. What are bone injuries? Discuss the types, causes and preventive measures of joint injuries.
35. Explain the administration of Kraus-Weber Tests in detail.
36. Explain any three tests for senior citizen fitness test.
37. Discuss the method of calculation of $\dot{V}O_2$ Max.
38. Discuss asanas as preventive measures in detail.
39. What do you mean by Asthma? Explain the procedure, benefits and contraindications.
40. What is hypertension? Discuss the benefits and contraindications of Vajrasana and Ardha Chakrasana.
41. Mention the management of sprain in detail.
42. Discuss the management of abrasion, contusion and laceration.
43. Explain the physiological factors determining 'flexibility' as a component of physical fitness.
44. Participation in physical activity for a longer duration maintain functional fitness among aged population. Justify.
45. Staying healthy and active is in direct proportion to the good or bad posture one adopts.
Comment.
46. What do you mean by Back pain? Discuss the procedure and benefits of Shalabhasana.
47. What is the impact of high altitude on athletes? What measures would you suggest to reduce its impact?
48. Define and classify 'fixtures'. Draw a league fixture for 16 teams.
49. Enlist the committees for organizing sports events and explain any eight teams.
50. Elucidate the exercise guidelines at different states of growth.

DAYANAND ANGLO VEDIC PUBLIC SCHOOL, AIROLI
CHEMISTRY QUESTION BANK (2017-18)

STD-XII

1. Nitrogen exists as diatomic molecule and phosphorus as P₄. Why?
2. One-fourth of a first order reaction is completed in 32 minutes. What is the half-life period of this reaction?
3. What is a biodegradable polymer? Give an example of bio-degradable aliphatic polyester.
4. How do you convert the following:
 - (i) Aniline to chlorobenzene
 - (ii) Benzene to Diphenyl
 - (iii) Benzene to 4- Bromonitrobenzene
5. What is the basicity of H₃PO₃ and why?
6. Can FCl₃ exist? Comment.
7. Write the monomers of the following polymers
 - (i) Buna-N
 - (ii) Teflon
 - (iii) Neoprene
8. Describe the principle controlling each of the following processes:
 - (i) Vapour phase refining of titanium metal
 - (ii) Froth floatation method of concentration of a sulphide ore
9. Preparation of ethers by acid-catalysed dehydration of secondary and tertiary alcohols is not a suitable method. Give reason with examples.
10. An element crystallizes in a *fcc* lattice with cell edge of 250pm. Calculate the density if 300g of this element contain 2×10^{24} atoms.
11. Write the steps in the preparation of KMnO₄ from pyrolusite ore.
12. Arrange the following in increasing order of acidic strength:
3,4-Dinitrobenzoic acid, 4-Methoxybenzoic acid, Benzoic acid
13. Why do primary amines have higher boiling point than tertiary amines?
14. Cu⁺ ion is not stable in aqueous solution. Why?
15. The transition metals and many of their compounds act as good catalyst. Why?
16. How is the general electronic configuration of lanthanoids different from that of actinoids?
17. What chemical change takes place when pyrolusite is fused with KOH in air?
18. Describe a Leclanche cell with special reference to
 - (i) the electrodes used and
 - (ii) the reactions occurring at the electrodes in the cell.
19. Explain
 - (i) Allyl chloride is more reactive than n- propyl chloride towards nucleophilic substitution reaction.
 - (ii) Which will have higher boiling point: 1-Chloroethane or 2-Chloro-2-methylbutane.
 - (iii) p-Chloronitrobenzene undergoes nucleophilic substitution faster than chlorobenzene. Explain with resonating structures.
20. A solution of glycerol (C₃H₈O₃) in water was prepared by dissolving some glycerol in 500g of water. This solution has boiling point of 100.42^oC. What mass of glycerol was dissolved to make this solution?

(K_b for water = $0.512\text{K Kg mol}^{-1}$)

21. How will you carry out the following conversions:
- Benzene to toluene
 - Chloroethane to butane
 - Aniline to benzene
22. Why rate of the reaction does not remain constant throughout?
23. In the Arrhenius equation for a reaction, the value of A and E_a are $4 \times 10^{13} \text{ sec}^{-1}$ and 98.6 kJ mol^{-1} respectively. If the reaction is of first order, at what temperature will its half – life period be 10 min.?
24. What are Pseudo unimolecular reactions? Explain with the help of a suitable example.
25. For the elementary step of a chemical reaction :
- $$\text{H}_2 + \text{I}_2 \rightarrow 2\text{HI} \quad \text{rate of reaction} = k [\text{H}_2] [\text{I}_2]$$
- What is the (i) molecularity and (ii) order of the reaction
26. A solid is made up of two elements P and Q. Atoms of Q are in ccp arrangement while atoms of P occupy all the tetrahedral sites. What is the formula of the compound?
27. (a) What change occurs when AgCl is doped with CdCl_2 ?
- (b) What type of semiconductor is produced when silicon is doped with boron?
- (c) Why does LiCl acquire pink colour when heated in Li vapours?
28. Chromium crystallizes in bcc structure. If its atomic diameter is 245pm, find its density. (Atomic mass of Cr = 52 amu.)
29. Give chemical tests to distinguish between:
- Isopropyl alcohol and n-propyl alcohol
 - Benzoic acid and Phenol
 - Benzaldehyde and Benzoic acid
30. Explain the following observations:
- The boiling point of ethanol is higher than that of methoxy methane.
 - Phenol is more acidic than ethanol.
 - o- and p-nitrophenols are more acidic than phenol.
31. Give reactions for
- the preparation of phenol from cumene.
 - Reimer- Tiemann reaction
 - Aldol condensation
32. For the standard cell
- $$\text{Cu(s)}/\text{Cu}^{2+}(\text{aq}) \parallel \text{Ag}^+(\text{aq})/\text{Ag(s)}$$
- $$E^0 \text{Cu}^{2+}/\text{Cu} = +0.34 \text{ V}$$
- $$E^0 \text{Ag}^+/\text{Ag} = +0.80 \text{ V}$$
- identify the cathode and the anode as the current is drawn from the cell.
 - Write the reaction taking place at the electrodes.
 - Calculate the standard cell potential.
33. Why is glass considered a super cooled liquid?
34. Write an equation of Friedel – Craft's alkylation of anisole.
35. Define the term osmotic pressure. Why is osmotic pressure method better than boiling point method for determining molecular mass of solute?
36. A reaction is first order in A and second order in B.
- Write differential rate equation.
 - How is rate affected on increasing the concentration of B to three times?
 - How is rate affected when the concentration of both A and B is doubled?

37. Which compound in each of the following pairs will react faster in S_N^2 reaction with OH^- and why?
(i) CH_3Br or CH_3I (ii) $(\text{CH}_3)_3\text{C}\cdot\text{Cl}$ or CH_3Cl
38. An organic compound with molecular formula $\text{C}_9\text{H}_{10}\text{O}$ forms 2,4-DNP derivative, reduces Tollen's reagent and undergoes Cannizzaro's reaction. On vigorous oxidation, it gives benzenedicarboxylic acid. Identify the compound.
39. How will you bring about the following conversions?
(i) Propan-2-one to 2-methylpropan-2-ol
(ii) Methylbromide to acetic acid
40. Why is ferric chloride preferred over potassium chloride in case of a cut leading to bleeding?
41. Heat of adsorption is greater for chemisorption than physisorption. Why?
42. (a) What is colloidion?
(b) Give an example in which shape selectivity of the catalyst is exhibited?
(c) What are emulsions? What are their different types? Give example of each type.
43. Mention a chemical property in which methanoic acid differs from acetic acid.
44. Give simple tests to distinguish between
(i) Propanal and propanone
(ii) Ethanal and propanal
(iii) Acetophenone and Benzophenone
45. What is the role of depressant in froth floatation?
46. What are analgesics? How are they classified? Give examples.
47. Arrange the following
(i) In increasing order of basic strength:
 $\text{C}_6\text{H}_5\text{NH}_2$, $\text{C}_6\text{H}_5\text{N}(\text{CH}_3)_2$, $(\text{C}_2\text{H}_5)_2\text{NH}$ and CH_3NH_2
(ii) In increasing order of basic strength:
Aniline, p-nitroaniline and p-toluidine
48. What is the role of graphite rod in the electrometallurgy of Al?
49. What are antacids? Give examples.
50. Why are aliphatic amines stronger bases than aromatic amines?

DAYANAND ANGLO VEDIC PUBLIC SCHOOL, AIROLI

PHYSICS QUESTION BANK

SESSION-2017-18

Std-XII

1. Show the variation of resistivity of copper as a function of temperature in a graph.
2. State Kirchoff's Laws for electrical circuit.
3. How is the radius of a nucleus related to its mass number?
4. Why does bluish colour predominant in a clear sky?
5. A proton and deuteron are accelerated through the same accelerating potential. Which one of the two has greater value of de- Broglie wavelength associated with it?
6. Define the term 'self- inductance' of a coil. Write its S.I unit.
7. What are Eddy currents? How can Eddy currents be reduced?

8. What is meant by equipotential surface? Give two properties of an equipotential surface.

9. a) Derive an expression for electric potential at a point due to a point charge.
b) Derive an expression for electric potential at a point due to an electric dipole.

10. What are permanent magnets? Give one example.

11. Write Einstein's photoelectric equation and point out characteristic properties of photons on which this equation is based.
12. Define the term cut-off voltage and threshold frequency in relation to the phenomenon of photoelectric effect.
13. How does the mutual inductance of a pair of coils change when:
(i) distance between the coils is increased and
(ii) number of turns in the coils is increased?
14. Explain with the help of a suitable diagram, how a galvanometer can be converted into a voltmeter of the required range.

15. Deduce ohm's law using the concept of drift velocity.

16. What is displacement current? Derive an expression for it.

17. Define the term current sensitivity and voltage sensitivity of a moving coil galvanometer. Write the expression for both.

18. Define the term 'drift velocity' of charge carriers in a conductor. Obtain the expression for the drift velocity in terms of relaxation time
19. Define electric dipole moment? Derive an expression for the torque acting on an electric dipole, when held in a uniform electric field.

20. Draw the graph showing the variation of photoelectric current with anode potential of a photocell for the same frequencies but different intensities $I_1 > I_2 > I_3$ of incident radiation.
21. Draw the block diagram of a communication system. What is the function of a transducer?
22. Describe principle, construction, theory and working of a cyclotron. Why is a cyclotron not suitable for accelerating electrons?

23. State Lenz's law. Show that Lenz's law supports the law of conservation of energy.
24. a) Name the electromagnetic waves used for the following
 i) Water purification ii) treatment of cancer.
 b) How are electromagnetic waves produced? Write use of any one electromagnetic wave.
25. In an ideal transformer, the number of turns in the primary and secondary are 100 and 800 respectively. If the power input to the primary is 10kW at 220V, calculate (i) output voltage and (ii) current in primary.
26. Derive an expression for the potential energy of an electric dipole in an uniform electric field.
27. State the law of radioactive decay. Plot a graph showing the number(N) of undecayed nuclei as a function of time(t) for a given radioactive sample having half life $T_{1/2}$. Depict in the plot the number of undecayed nuclei at (i) $t = 3T_{1/2}$ and (ii) $t = 5T_{1/2}$.
28. Define capacitance of a capacitor. For a parallel plate capacitor, prove that the total energy stored in a capacitor is $\frac{1}{2}CV^2$.
29. State the principle of potentiometer. Draw circuit diagram of potentiometer for the determination of internal resistance of a primary cell.
30. Draw the graph showing the variation of binding energy per nucleon with the mass numbers. Give the reason for the decrease of binding energy per nucleon for nuclei with higher mass number.
31. (a) With the help of diagram, explain the principle of a moving coil galvanometer.
 b) What is the importance of radial magnetic field?
32. Draw a circuit diagram of a meter bridge and write the mathematical relation used to determine the value of an unknown resistance. Why such arrangement cannot be used for measuring very low resistance?
33. With the help of schematic diagram explain how Galvanometer can be converted into ammeter. Write the expression of shunt resistance.
34. A slab of material of dielectric constant K has the same area as that of the plates of a parallel plate capacitor but has the thickness $d/3$, where d is the separation between the plates. Find out the expression for its capacitance when slab is inserted between the plates of the capacitor.
35. Obtain an expression for magnetic moment of an electron in a circular orbit of radius 'r' and moving with a speed 'v'. State the rule to find its direction. How does the magnetic moment change when
 (i) the frequency of revolution is doubled.
 (ii) the orbital radius is halved?
36. What are eddy currents? How can they be minimized? Give two applications of eddy currents.
37. Write the principle & expression for Wheatstone bridge.
38. Draw the energy level diagram showing how the transitions between energy level result in the appearance of Lyman series.

39. Mention two advantages of reflecting type telescope over refracting type telescope.
40. Use Brewster law to obtain an expression for the angle of polarization when some part of incident light is reflected and refracted from the surface of a medium of refractive index μ . i.e. $\tan i_p = \mu$.
41. Draw a plot showing the variation of photoelectric current with collector plate potential for two different frequencies $\nu_1 > \nu_2$, of incident radiation having the same intensity. In which case will the stopping potential be higher?
42. Derive an expression for electric field at a point due to a uniformly charged infinite plane sheet using Gauss' law.
43. Write the three important factors which justify the need of modulating a message signal.
44. a) In series LCR circuit connected to an ac source of variable frequency and voltage $V = V_m \sin \omega t$, draw a plot showing the variation of current (I) with angular frequency (ω) for two different values of resistance R_1 and R_2 ($R_1 > R_2$).
 b) Write the condition under which the phenomenon of resonance occurs.
45. Distinguish between diamagnetic, paramagnetic and ferromagnetic substance (any 3 points).
46. a) State Biot- Savart's law.
 b) Derive an expression for magnetic field at the centre of circular coil of n - turns carrying current I .
47. Two straight, parallel current carrying conductors are kept at a distance r from each other in air. The direction of current in both the conductors is same. Find the magnitude and direction of the force between them. Hence define one Ampere.
48. (i) State Gauss's law in electrostatics.
 (ii) Apply this theorem to calculate the electric field due to uniformly charged shell at a point (a) inside the shell (b) on the shell (c) outside the shell
 iii) Apply this theorem to obtain an expression for the electric field intensity at a point due to an infinitely long line of charge having uniform charge density of λ .
49. a) With the help of a labeled diagram show the image formation by a compound microscope. Derive an expression for its magnifying power at least distance of distinct vision.
50. a) Derive a relation for the refractive index of the material of a prism, when the prism is placed in minimum deviation position.
 b) Draw a graph showing variation of angle of minimum deviation with angle of incidence.

Dayanand Anglo Vedic Public School, Airoli
Question Bank (2017-18)
Computer Science
Std - XII

1. Distinguish between an object and a class.
2. What is an inline function?
3. Explain : Data Abstraction, Encapsulation, Inheritance, Polymorphism
4. What is the difference between fundamental data types and derived data types?
Explain with examples.
5. Differentiate between post- increment and pre-increment operator, also gives suitable code to illustrate it.
6. Differentiate between type casting and automatic type conversion. Give suitable code to explain.
7. What is difference between actual parameter and formal parameter.
8. Differentiate between call by value & call by reference.
9. Differentiate between # define and const. Explain with examples.
10. What is local & global variable.
11. Write a note on significance of constructor and destructors.
12. What is copy constructor? Give an example to illustrate it.
13. What is function overloading? Give an example to illustrate it?
14. What is the difference between private and public inheritance?
15. What do you understand by visibility modes in a class derivation? What are these modes?
16. What are linear and non-linear data structures?
17. Define array and pointers.
18. Differentiate between static & dynamic allocation of memory.
19. What is 'this' pointer? What is its significance?
20. What are the preconditions of binary search?
21. Which of following sorting: Insertion, Selection or Bubble is more efficient.
22. What is the difference between logical error and syntax error? Also give suitable example.

23. Define a class Travel in C++ with the following descriptions:

Private Members:

T_Code of type string
No_of_Adults of type integer
No-of_Children of type integer
Distace of type integer
TotalFare of ype float

Public Members:

- A constructor to assign initial values as follows:
T_Code with the word "NULL"
No_of_Adults as 0
No_of_children as 0
Distance as 0
TotalFare as 0
- A function AssignFare() which calculates and assign the value of the date member TotalFare as follows:

For each Adult

Fare(Rs)	For Distance (Km)
500	>=1000
300	<1000 & >=500
200	<500

For each child the above Fare will be 50% of the Fare mentioned in the above table.

For example:

If Distance is 750, No_of_Adults=3 and No_of_Children=2

Then totalFare should be calculated as

$$\text{No_of_Adults} * 300 + \text{No_of_children} * 150$$

i.e., $3 * 300 + 2 * 150 = 1200$

- A function EnterTravel() to input the values of the data members T_Dode, No_of_adults, No_of_children and Distance; and invoke the AssignFare() function
- A Function ShowTravel() which display the content of all the data members for a Travel.

24. In the following program, if the value of N given by user is 20, What maximum and minimum values the

program could display?

```
#include <iostream.h>
#include <stdlib.h>
void main( )
{ int N, guessnum;
  randomize( );
  cin >> N;
  guessnum = random (N - 10) + 10
  cout << guessnum << endl;
}
```

25. An array A[20][30] is stored along the row in the memory with each element requiring 4 bytes of storage. If the base address of array A is 32000, find out the location of A[15][10]. Also, find the total number of elements present in this array.
26. Write a user-defined function AddEnd2(int A[][4], int N, int M) in C++ to find and display the sum of all the values, which are ending with 2 (i.e., units place is 2).
for example if the content of array is:

22	16	12
19	5	2

The output should be
36

27. Write a function SKIP(int A[][3], int C, int R) to display all alternate elements from

two-dimensional array A (starting from A[0][0]).

e.g If the array is containing :

12	45	67
33	90	76
21	73	59

The output will be : 12 67 90 21 59

28. Answer the question (i) to (iv) based on the following code:

```
class Trainer
{
    char TNo[5], TName[20], Specialisation[10];
    int Days;
protected:
    float Remuneration;
    void AssignRem(float);
public:
    Trainer();
    void TEntery();
    void TDisplay();
};
class Learner
{
    char regno[10], LName[20], Prpgram[10];
protected:
    int Attendance, Grade;
public:
    Learner();
    void LEntery();
    void LDisplay();
};
```

```

class Institute:public Learner, public Trainer
{
    char ICode[10], IName[20];
    public:
    Institute();
    void IDisplay();
};

```

(i) Which type of Inheritance is depicted by the above example?

(ii) Identify the member function(s) that cannot be called directly from the objects of class Institute from the following:

TEntry()

LDisplay()

IEntry()

(iii) Write name of all the member(s) accessible from member functions of class Institute.

(iv) If class Institute was derived privately from class Learner and privately from class Trainer, then, name the member function(s) that could be accessed through Objects of class Institute.

29. Give the output for the following c ++ program (Assuming desired header files are included in code):

```

void main ()
{ char *string = "SARGAM";
  int *p , A [ ] = {1, 5, 7,9};
  p = A ;
  cout << *p << string <<endl;
  string++;
  p += 3;
  cout << *p << string <<endl;
}

```

30. Evaluate the following postfix expression. Show the status of stack after execution of each operation separately:

T, F, NOT, AND, T, OR, F, AND

31. Write a function PUSHBOOK() in C++ to perform insert operation on a Dynamic Stack, which contains Book_No and Book_Title. Consider the following definition of NODE, while writing your C++ code.

```

struct NODE
{
    int Book_No;
    char Book_Title[20];
    NODE *Next;
};

```

32. What are the advantages of Object oriented Programming over procedural Programming.

33. Evaluate the following postfix notation of expression, show status of stack for each operation:

500, 20, 30, +, 10, *, +

34. Consider the following portion of program, which implements passengers queue for a flight. Write the

definition of function Insert() to insert a new node in the queue with required information:

```
struct NODE
{ long Ticketno;
char Pname[20];
NODE * next; };
class Queueflight
{ NODE *rear, *front;
public:
Queueflight ()
{ rear = NULL ;
front = NULL ; }
void Insert ();
void Delete ();
~ Queueflight ();
};
```

35. Convert the following infix expression into postfix :

(A + B) * C + D / E – F

36. How are binary files different from text files in C++ ?

37. What is a stream ? Name the streams generally used for file I/O ?

38. Write two member functions belonging to fstream class.

39. What is the difference between the functioning of ios ::ate and ios::app file modes ?

40. Observe the program segment given below carefully and answer the question that follows

```
class school
{ private :
char name[25];
int numstu;
public:
void inschool();
void outschool();
int retnumstu() { return numstu; }
};
void modify(school A)
{ fstream INOUT;
INOUT.open("school.dat",ios::binary|ios::in|ios::out);
school B;
int recread=0, found=0;
while(!found && INOUT.read((char*)&B,sizeof(B))
{ recread++;
if(A.retnumstu() == B.retnumstu())
{
_____//missing statement1
_____//missing statement2
Found=1;
}
```

```

else
INOUT.write((char*)&B,sizeof(B));
}
if(!found)
cout<<"\nRecord for modification does not exist";
INOUT.close();
}

```

If the function modify() is supposed to modify a record in file school.dat with the values of school A

passed to its argument. Write the appropriate statement for statement1 using seekp() or seekg() to

position the file write pointer to an appropriate place in the file and statement2 to perform the write

operation.

41. Write a function RevText() to read a text file "Input.txt" and Print each word in reverser order

Example :

If value in text file is : INDIA IS MY COUNTRY

Output will be: AIDNI SI YM YRTNUOC

42. Write a function in C++ to count the word "this" and "these" present in a text file "article.txt".

43. Define the following:

(i) Domain (ii) Tuple (iii) Relation (iv) Primary key (v) Alternate key (vi)Candidate key

44. What is a view ? How are views different from a table ?

45. What is Cartesian product ? How is it different from Union operation ?

46. Write the SQL commands from (a) to (d) and output from (e) to (h) for the following on the basis of

tables GARMENT and FABRIC

Table: GARMENT

GCOD E	DESCRIPTIO N	PRIC E	FCOD E	READYDAT E
10023	PENCIL SKRIT	1150	F03	19-DEC-08
10001	FORMAL SHIRT	550	F01	07-MAR-07
10012	BABY TOP	300	F02	11-SEP-09
10024	EVENING GOWN	545	F04	05-JAN-08
10090	FROCK	575	F01	03-OCT-07

Table: FABRIC

FCODE	TYPE
F04	POLYSTER
F02	COTTON
F03	SILK
F01	TERELENE

- (a) To display gcode and description of each garment in descending order of gcode.**
- (b) To display the details of all the garments which have readydate in between 08-dec-07 and 16-nov-08(inclusive of both dates)**
- (c) To display the average price of all the garments fcode wise.**
- (d) To display gcode, description, price from garment table and type from fabric table.**
- (e) SELECT SUM(PRICE) FROM GARMENT WHERE FCODE='F01';**
- (f) SELECT DESCRIPTION, TYPE FROM GARMENT,FABRIC WHERE GARMENT.FCODE = FABRIC.FCODE AND GARMENT.PRICE= 1150;**

(g) **SELECT MAX(PRICE) FROM GARMENT;**

(h) **SELECT COUNT(FCODE) FROM GARMENT;**

47. Consider the following tables PRODUCT and CLIENT. Write SQL commands for the statements (a)

to (d) and give outputs for SQL queries (e) to (h).

Table: PRODUCT

P_ID	PRODUCTNAME	MANUFACTURER	PRICE
TP01	TALCOM	POWDER LAK	40
FW05	FACE	WASH ABC	45
BS01	BATH	SOAP ABC	55
SH06	SHAMPOO	XYZ	120
FW12	FACE	WASH XYZ	95

Table: CLIENT

C_ID	CLIENTNAME	CITY	P_ID
01	COSMETIC SHOP	DELHI	FW05
06	TOTAL HEALTH	MUMBAI	BS01
12	LIVE LIFE	DELHI	SH06
15	PRETTY WOMAN	DELHI	FW12
16	DREAMS	BANGALORE	TP01

(a) To display the details of those clients whose city is Delhi.

(b) To display the clientname, city from table client and productname and price from table product with

their corresponding matching p_id.

(c) To display the manufacturer of 'FACE WASH'.

(d) To increase the price of all products by 10.

(e) SELECT DISTINCT CITY FROM CLIENT;

(f) SELECT MANUFACTURER, MAX(PRICE), MIN(PRICE), COUNT(*) FROM
PRODUCT GROUP

BY MANUFACTURER;

(g) SELECT CLIENTNAME, MANUFACTURER FROM PRODUCT, CLIENT
WHERE CLIENT.P_ID =

PRODUCT.P_ID;

48. Define the term degree and cardinality in a relation.

49. What do you mean by data redundancy ?

50. What are the various data models available for database systems ?

51. State and prove INVOLUTION LAW of Boolean algebra.

52. Implement the following Boolean expression.

$$Y = A.B.C + A.B'.C' + A'.B.C + A'.B'.C'$$

53. Convert the following Boolean expression into its equivalent Canonical Sum of Products form

$$(SOP): (X+Y+Z) (X+Y+Z') (X'+Y+Z) (X'+Y'+Z')$$

54. Find POS of the following :

$$F(A,B,C,D) = \prod (0,1,2,4,5,8,9,10,11)$$

55. Express $F(x,y,z) = x + y'z$ in SOP form.

56. Obtain a simplified form for a Boolean expression.

$$F(u,v,w,z) = \sum (0,1,3,4,5,7,8,9,11,12,13,15) \text{ using karnaugh map.}$$

57. A combinational circuit having 4 input and one output produce 1 when

(1) All inputs are 1.

(2) none of the inputs are 1.

(3) odd number of 1 inputs.

Draw the truth table and represent it in SOP and POS form

58. There are four parallel railway track at a place. It is desired to design a logic circuit which can give

a signal when three or more train together at any given time.

(a) Draw a truth table for the above table.

(b) Simplify the expression using k-Map.

59. Implement the following Boolean expression using NAND gates only.

$$Y = A.B + A.B' + A'.B' + A'.B$$

60. Write the dual of the following expression.

$$X + X'Y = X$$

61. State and prove the following theorems

a) DeMorgans' Theorem b) Absorption Theorem c) Idempotent law d)

Associative law

62. What is duality principle. Give example

63. Simplify using K-map

$$f(A,B,C,D) = \prod (0,1,3,5,7,10,11,13,15)$$

$$f(P,Q,R,S) = \sum (1,3,4,6,8,11,13,14,15)$$

64. (a) Implement the following Boolean expression using NOR gates only.

$$F(A, B, C) = A.B'.C + A'.B.C + A'.B.C' \text{ in POS form.}$$

(b) Find the complement of $(A+B)' + (A'+B)'$

65. How firewall protect our Network?

66. Expand the following:

SMS, URL, WLL, PPP, TCP/IP, FSF, FLOSS, FTP, SMTP, POP, SLIP, FTP, OSS

67. Write one advantage and disadvantage of various network topologies

68. Write short notes for the following

Hub, switch, server, modem, repeater

69.(a) What is a proprietary software ?

(b) What is NFS ? What is its purpose?

(c) What is a backbone network ?

(d) Name one server side scripting language and one client side scripting language?

70. What are the various physical media used for the data transmission in a Network system.

71. What is a repeater ?

72. How is a hacker different from a crackers ?

73. What is Web Hosting ?

74. Name one server side scripting language and one client side scripting language.

75. Differentiate between Freeware and Shareware?

Q29. Find any value of $\cot^{-1}(-\sqrt{3})$, other than the principle value.

Q30. What is the principle value branch of $\operatorname{cosec}^{-1}x$.

Q31. Let R be a relation on the set A of ordered pairs of positive integers defined by $(x,y)R(u,v)$ if and only if $xv = yu$. Show that the relation is an equivalence relation.

Q32. Prove that $\cot^{-1}\left(\frac{ab+1}{a-b}\right) + \cot^{-1}\left(\frac{bc+1}{b-c}\right) + \cot^{-1}\left(\frac{ac+1}{c-a}\right) = 0$

Q33. If $\tan^{-1}\left(\frac{1-x}{1+x}\right) = \frac{1}{2}\tan^{-1}x$ ($x > 0$), then find the value of x.

Q34. Find the inverse of the matrix $\begin{bmatrix} -2 & 3 \\ -3 & 6 \end{bmatrix}$ using elementary transformations.

Q35. If $A = \begin{bmatrix} 3 & -4 \\ 1 & -1 \end{bmatrix}$, then prove that $A^n = \begin{bmatrix} 1+2n & -4n \\ n & 1-2n \end{bmatrix}$, where n is any positive integer.

Q36. Verify Rolle's theorem for the function $f(x) = x^2 + 2x - 8$, $x \in [-4, 2]$

Q37. Find the local maximum and local minimum values of $f(x) = \sin x + \cos x$, where $x \in \left(0, \frac{\pi}{2}\right)$.

Q38. Evaluate $\int \frac{8dx}{(x+2)(x^2+4)}$

Q39. Show that $\int_{-3}^3 |x+1| dx = 10$.

Q40. Find the area of the region bounded by the ellipse $\frac{x^2}{16} + \frac{y^2}{9} = 1$.

Q41. Using matrices, solve the system of equations

$$x + 2y - 3z = -4$$

$$2x + 3y + 2z = 2$$

$$3x - 3y - 4z = 11$$

Q42. If $(x-a)^2 + (y-b)^2 = c^2$ for some $c > 0$, prove that $\frac{\left[1 + \left(\frac{dy}{dx}\right)^2\right]^{\frac{3}{2}}}{\frac{d^2y}{dx^2}}$ is a constant independent

of a and b.

Q43. Show that the height of the cylinder of greatest volume that can be inscribed in a right circular cone of height h and semi vertical angle α is one-third that of the cone. Also find the greatest volume of the cylinder.

Q44. Evaluate $\int \sqrt{\tan x} + \sqrt{\cot x} dx$

OR

Prove that $\int_0^{\pi} \frac{x \sin x}{1 + \cos^2 x} dx = \frac{\pi^2}{4}$

Q45. Using integration find the area of the region bounded by the triangle whose vertices are (1,0) (2,2) and (3,1).

Q46. If $y = e^{a \cos^{-1} x}$, $-1 < x < 1$, show that $(1-x^2) \frac{d^2 y}{dx^2} - x \frac{dy}{dx} - a^2 y = 0$.

Q47. If $y = \sin(m \sin^{-1} x)$, show that $(1-x^2) \frac{d^2 y}{dx^2} - x \frac{dy}{dx} + m^2 y = 0$

Q48. If $x = a(\theta - \sin \theta)$ and $y = a(1 - \cos \theta)$. Find $\frac{d^2 y}{dx^2}$ at $\theta = \frac{\pi}{2}$.

Q49. Find $\frac{dy}{dx}$ when $y = \left[\frac{x}{2} \sqrt{a^2 - x^2} + \frac{a^2}{2} \sin^{-1} \frac{x}{a} \right]$

Q50. Verify Rolle's theorem for the function $f(x) = x(x-3)^2$ in $[0,3]$

Q51. Verify mean value theorem for the function $f(x) = (x-1)(x-2)^2$ in $[1,2]$

Q52. Find the equations of the tangent and normal to the curve $y = x + \sin x \cos x$ at $x = \frac{\pi}{2}$.

Q53. Determine the intervals in which the function $f(x) = (x-1)(x+2)^2$ is increasing or decreasing.

Q54. Find the approximate value of $f(2.01)$ where $f(x) = 4x^2 + 5x + 2$.

Q55. Find the local maxima and minima, if any, for the functions

i) $f(x) = x^2$

ii) $g(x) = \frac{x}{2} + \frac{2}{x}$ $x > 0$

Q56. Find the absolute maximum value and absolute minimum value of $f(x) = (x-1)^2 + 3$, where $x \in [-3,1]$

Q57. Evaluate the following integrals

i). $\int \frac{dx}{\sqrt{x}(1+\sqrt{x})}$

ii). $\int \cot x \, dx$

iii). $\int \frac{\log(x^2)}{x} \, dx$

iv). $\int x \cos^{-1} x \, dx$

v). $\int e^x \operatorname{cosec} x (1 - \cot x) \, dx$

vi). $\int_0^{\frac{\pi}{2}} \frac{\sin^5 x}{\sin^5 x + \cos^5 x} \, dx$

vii). $\int_0^a \frac{a+x}{a-x} \, dx$

$$\text{viii). } \int_0^{\frac{1}{\sqrt{2}}} \frac{(\sin^{-1} x)}{(1-x^2)^{\frac{3}{2}}} dx$$

$$\text{ix.) } \int_0^8 |x-5| dx$$

$$\text{x.) } \int_{-\frac{\pi}{2}}^{\frac{\pi}{2}} \sin^5 x$$

$$\text{Q58. Solve } \cos x \frac{dy}{dx} + y = \sin x.$$

$$\text{Q59. Solve } (e^x + e^{-x})dy - (e^x - e^{-x})dx = 0$$

$$\text{Q60. Solve } ydx + x \log\left(\frac{y}{x}\right)dy - 2xdy = 0$$

$$\text{Q61. Find the particular solution of } 2xy + y^2 - 2x^2 \frac{dy}{dx} = 0, \text{ given } y=2 \text{ when } x=1.$$

$$\text{Q62. Find the particular solution of } \frac{dy}{dx} + y \cot x = 4 \cos ecx, \text{ given } y=0 \text{ when } x = \frac{\pi}{2}.$$

$$\text{Q63. Show that the height of the cylinder of maximum volume that can be inscribed in a sphere of radius } R \text{ is } \frac{2R}{\sqrt{3}}.$$

$$\text{Q64. Show that the altitude of the right circular cone of maximum volume that can be inscribed in a sphere of radius } r \text{ is } \frac{4r}{3}.$$

$$\text{Q65. Show that the least perimeter of an isosceles triangle in which a circle of radius } r \text{ can be inscribed is } 6\sqrt{3}r.$$

$$\text{Q66. Prove that } \int_0^{\frac{\pi}{2}} (\sqrt{\tan x} + \sqrt{\cot x})dx = \pi\sqrt{2}$$

$$\text{Q67. Prove that } \int_0^a \sin^{-1} \sqrt{\frac{x}{a-x}} dx = \frac{a}{2}(\pi - 2)$$

$$\text{Q68. Prove that } \int_{-a}^a \sqrt{\frac{a-x}{a+x}} dx = a\pi$$

Q69. Find the area of the region included between the parabolas

$$y^2 = 4ax \text{ and } x^2 = 4ay, \text{ } a > 0$$

Q70. Using integration find the area of the region bounded by the parabola

$$x^2 = 4y \text{ and the line } x = 4y - 2$$

Q71. Find the area bounded by the circle $x^2 + y^2 = 16$, the line $y=x$ and the x-axis.

Q72. Find the area bounded by the curves $y^2 = 4x$, $x=1$, $x=4$ and the x-axis

in the first quadrant.

Q73. Find the area of the region $\{ (x, y) : y^2 \leq 4x, 4x^2 + 4y^2 \leq 9 \}$

Q74. Show that the given differential equation is homogenous and hence solve it.

$$\left(x \cos\left(\frac{y}{x}\right) + y \sin\left(\frac{y}{x}\right) \right) y dx = \left(y \sin\left(\frac{y}{x}\right) - x \cos\left(\frac{y}{x}\right) \right) x dy$$

Q75. Solve $(\tan^{-1} y - x) dy = (1 + y^2) dx$

Q76. The vector equations of two lines are

$$\vec{r} = i + 2j + 3k + \lambda(i - 3j + 2k)$$

$$\vec{r} = 4i + 5j + 6k + \mu(2i + 3j + k)$$

Find the shortest distance between the above lines.

Q77. Find the shortest distance between the lines whose vector equations are

$$\vec{r} = (\lambda - 1)i + (\lambda + 1)j - (\lambda + 1)k$$

$$\vec{r} = (1 - \mu)i + (2\mu - 1)j + (\mu + 2)k$$

Q78. Find the vector equation of the plane passing through the intersection of the planes $r \cdot (2i - 7j + 4k) = 3$

and $r \cdot (3i - 5j + 4k) + 11 = 0$ and passing through the point $(-2, 1, 3)$.

Q79. Show that the points with position vectors $6i - 7j, 16i - 19j - 4k, 3j - 6k, 2i - 5j + 10k$ are coplanar.

Q80. Find the vector and Cartesian equation of the line through the point $(5, 2, -4)$ and parallel to the vector $3i + 2j - 8k$.

Q81. There are two types of fertilizers F1 and F2. F1 consists of 10% nitrogen and 6% phosphoric acid and F2 consists of 5% nitrogen and 10% phosphoric acid. After testing soil conditions a farmer finds that he needs at least 14 kg nitrogen and 14 kg phosphoric acid. If F1 costs Rs.6/kg and F2 costs Rs.5/kg, determine how much of each type of fertilizer should be used so that requirements are met at minimum cost.

Q82. A manufacturer produces nuts and bolts. It takes 1 hour of work on machine A and 3 hours of work on machine B to produce a package of nuts. It takes 3 hours on machine A and 1 hour on machine B to produce a package of bolts. He earns a profit of Rs.17.50 per package of nuts and Rs.7.00 per package on bolts. How many packages of each should be produced each day so as to maximize his profit, if he operates his machines for at the most 12 hours a day?

Q83. In a bulb factory machines A, B and C manufacture 60%, 30% and 10% bulbs respectively. 1%, 2% and 3% of the bulbs produced by A, B and C respectively are defective. A bulb is drawn at random from the total production and found to be defective. Find the probability this bulb has been produced by machine A.

Q84. If a fair coin is tossed 10 times, find the probability of

i) exactly 6 heads

ii) at least 6 heads

iii) at most 6 heads

Q85. Using properties of determinants, prove that
$$\begin{vmatrix} x+a & x & x \\ x & x+a & x \\ x & x & x+a \end{vmatrix} = a^2(3x+a)$$

Q86. Prove using properties of determinants that

$$\begin{vmatrix} a & b & c \\ a-b & b-c & c-a \\ b+c & c+a & a+b \end{vmatrix} = a^3 + b^3 + c^3 - 3abc$$

Q87. Q13. Find a unit vector perpendicular to both the vectors $3i + j - 2k$ and $2i + 3j - k$.

Q88. Find the projection of $2i - j + k$ on $i - 2j + k$.

Q89. If $\vec{a} = 5i - j - 3k$ and $\vec{b} = i + 3j - 5k$ then show that the vectors $a+b$ and $a-b$ are orthogonal.

Q90. Find a vector perpendicular to both $\vec{a} = i + 2j + 3k$ and $\vec{b} = i - 2k$

HIGHER ORDER THINKING SKILLS (10 QUESTIONS)

Q91. For any square matrix of order 2 if $A(\text{adj } A) = \begin{bmatrix} 10 & 0 \\ 0 & 10 \end{bmatrix}$, then find determinant of A.

Q92. Let $f(x) = x - [x]$, for every real number x, where $[x]$ is the integral part of x. Then

find $\int_{-1}^1 f(x) dx$.

Q93. If A is a non singular matrix of order 2 whose determinant is det A, then find det A^{-1}

Find the value of a and b such that the function defined by

Q94. $f(x) = \begin{cases} 5 & \text{if } x \leq 2 \\ ax + b & \text{if } 2 < x < 10 \\ 21 & \text{if } x \geq 10 \end{cases}$ is a continuous function

Q95. Let * be an operator defined on Q by $a * b = a + b - ab$ $a, b \in Q$. Find the identity of this operator.

Q96. Evaluate $\int \sqrt{\tan x} dx$

Q97. If the straight line $x \cos \alpha + y \sin \alpha = p$ touches the ellipse $\frac{x^2}{a^2} + \frac{y^2}{b^2} = 1$, prove that $a^2 \cos^2 \alpha + b^2 \sin^2 \alpha = p^2$.

Q98. Find the vector equation of the plane passing through the intersection of planes $\vec{r} \cdot (2i - 7j + 4k) = 3$ and $\vec{r} \cdot (3i - 5j + 4k) + 11 = 0$ and passing through the point (-2, 1, 3).

Q99. Two dice are thrown and it is known that the numbers which come up were different. Find the probability that the sum of the 2 numbers was 4.

Q100. If \vec{a} and \vec{b} are unit vectors and θ is the angle between them, then show that $\sin \frac{\theta}{2} = \frac{|\vec{a} - \vec{b}|}{2}$.

D.A.V. Public School Airoli
Question Bank on Units VI- VIII
Class XII -BIOLOGY

- Q1. At what stage is embryo implanted in the uterus?
- Q2. Name the tissue that lines the inner surface of fallopian tube.
- Q3. What is acrosome? State its function
- Q4. What is corpus luteum? Under which conditions it undergoes degeneration?
- Q5. State the number of chromosomes in the following
- | | |
|-------------------|---------------------|
| 1) Primary oocyte | 3) follicular cells |
| 2) Ootid | 4) secondary oocyte |
- Q6. Males in whom testes fail to descend to the scrotum are generally infertile . why?
- Q7. State the function of trophoblast in human embryo.
- Q8. What stimulates pituitary to release the hormone responsible for parturition? Name the hormone.
- Q9. How is the entry of only one sperm and not many ensured into an ovum during fertilization in humans?
- Q10. a) when and how does placenta develops in human female?
b)How is placenta connected to the embryo?
c)Placenta acts as an endocrine gland .Explain
- Q11. When and where do chorionic villi appear in humans?State their functions.
- Q12. Write the function of Oviducal fimbriae and oxytocin
- Q13. Write the effect of high concentration of LH on a mature graffian follicle.
- Q14. What happens to the blastocyst immediately after implantation?
- Q15. What is seminal plasma? What are its components?
- Q16. State the importance of LH surge during menstrual cycle.
- Q17. Expand HCG and HPL
- Q18. What is endometrium and Foetal ejection reflex
- Q19. How does spermiogenesis from spermiation .
- Q20.Draw mature ovum and sperm with 6 labellings.
- Q21.State the significance of reproductive health in a society.
- Q22. Removal of gonads cannot be considered as a contraceptive option. Why?
- Q23. How do pills act as contraceptives in human female?

Q24. Why is hormone releasing IUD considered a good contraceptive device to space children ?

Q25. How do assisted reproductive technologies-IVF,AI,ZIFT helpful to humans?

Q26. Bring out the main difference between CuT and LNG-20

Q27.If implementation of better techniques and new strategies are required to provide more care and assistance to people, then why is there a statutory ban on amniocentesis.

Write the use of this technique and give reason to justify the ban.

Q28. Describe the lactational amenorrhea method of birth control

Q29. State the composition of contraceptive pills. What schedule is to be followed in taking pills?

Q30. Mention the four characteristics an ideal contraceptive should have?

Q31. State the role of hormones in contraception.

Q32. Comment on RCH programme to improve reproductive health

Q33. What are the permanent methods of birth control? Explain

Q34. State the consequences of population explosion

Q35. Why is MTP carried out?

Expand the following:

RCH	AI	TTBP
STD's	HIV	OC
MMR	IUT	NMIUD's
IMR	ZIFT	CRIUD's
IUD's	GIFT	HRIUD's
CDRI	ICSI	PNC
MTP	ET	PND
ART's	IUI	
IVF	RTI	

Q36. Write the possible source of RNA interference (RNA i) gene.

Q37. What is 'saltation' according to De Vries?

Q38. Name an IUD that you would recommend to promote cervix hostility to sperms.

Q39. Name the material used as matrix in gel electrophoresis and mention its role.

Q40. What is a Plasmid?