Holiday Homework (2024-25)

Class - 12th (Sci) (A, B & C)

Subject - English

1. Ageing is a matural process. Have you ever thought what our elderly parents expect from us ? What do you think children can do to have an involved and inclusive relationship with their elderly parents ?
   Prepare file on the topic word limit (700-800 words)
2. How would you describe the behaviour of the Maharajas minions towards him ? Do you find them truly sincere towards him or are they driven by fear when they obey him? Do you find a similarity in today's political order ?
   Prepare file on the topic word limit (700-800 words)
3. Learn the question - answers from Flamingo and vistas.
   (a) The Last Lesson (b) Lost Spring
   (c) The Third level (d) The Tiger king
4. Prepose summary from the lessons word limit (150-200 words)
   (a) The Last Lesson (Write in your notewok)
   (b) Lost Spring (Write in your notewok)
5. Poetry Section :- "My mother at sixty-six find out poetic device in all stanzas and write in your notebook.

Subject - Mathematics

1. Learn and write Basic Concepts and formule of Ch No. 1 to Ch no. 6.
2. Revision of Chapter No. 1 "Relation and Function", Chapter No. 2 "Inverse Trigonometric Functions", Chapter No. 3 "Metrix", Ch No. 4 "Determinants" and Ch No. 5 "Continuity and Differnetiability".
3. Complete Assignment of Ch No. 1 to Ch No. 5.
4. Try to Complete Ch no. 6 "Application of Derivatives", Chapter No. 7 "Integrals", Chapter No. 8 "Area bounded Region (Application of Integrals)" and Chapter No. 9 "Differential Equation".

Subject - Physics

1. Complete example of Ch-1 (Electric Change and electric field)
2. Complete Numerical of N.C.E.R.T excersise of Ch-1
3. Complete example of Ch-2 (Electric potential and capacitance)
4. Complete Numerical of N.C.E.R.T exercise fo Ch-2.
5. Project on given specific topic from N.C.E.R.T and practical sallybus.
6. Complete 3 Activity from Section-A and also 3 activity from Section B.

Subject - Biology

Reproduction in flowering Plants.

Q1. The function of tapetum in microsporangium is.

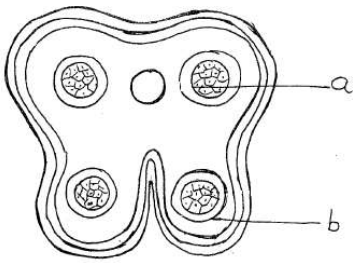
(a) It nourishes the developing pollen grains

(b) It performs the function of protection.

(c) It helps in dehiscence of anther to release pollen grains.

(d) It undergoes meiotic divisions to form microspore tetrads.

Q2. Identify 'A' and 'B' in the given diagram of a transverse section of a young anther.



(a) A-Tapetum, B- Sporogenous tissue

(b) A- Sporogenous tissue, B- Tapetum

(c) A- Endothecium, B-Tapetum

(d) A-Connective, B- Epidermis

Q3. The egg apparatus in the embryo sac consists of :-

(a) Two synergids and one egg cell (b) One synergid and two egg cells

(c) Central cell (d) Only two egg cells

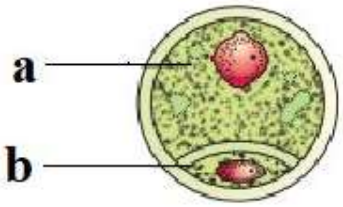
Q4. Which of the following statements is true for a filiform apparatus?

(a) It is located at the chalazal end. (b) It is located at the micropylar end.

(c) They play an important role in guiding the pollen tubes into the synergid.

(d) Both (b) and (c)

Q5. Identify 'A' and 'B' in the following diagram of a mature pollen grain.



(a) A- Generative cell B- Vegetative cell

(b) A- Vegetative cell B- Generative cell

(c) A- Nacuole B- Nucellus

(d) A- Nucleus B- Vacuole

Q6. Match the terms in column I with the items in column II.

1.	Autogamy	(A)	Transfer of pollen grains from anther to stigma of the same flower
2.	Geitonogamy	(B)	Transfer of pollen grains from anther to stigma of flower of another plant
3.	Xenogamy	(C)	transfer of pollen grains from the anther to the stigma of another flower of the same plant.

(a) 1-A, 2-C, 3-B (b) 1-A, 2-B, 3-C

(c) 1-C, 2-B, 3-A (d) 1-B, 2-A, 3-C

Q7. Which of the following statements is correct about the majority of angiosperms?

(a) Egg has five antipodal cells

(b) Reduction division occurs in the megaspore mother cells.

(c) A small central cell is present in the embryo sac.

(d) Egg has filiform apparatus.

Q8. A bilobed dithecous anther has 500 microspore mother cells per microsporangium. How many male gametophytes can this anther produce?

(a) 10,000 (b) 25,000 (c) 20,000 (d) 8,000

Q9. Choose the incorrect statement.

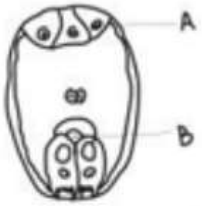
(a) The hollow foliar structure that encloses the leaf primordia in a grass embryo is called coleoptile

(b) In apple, the thalamus also contributes to fruit formation and becomes edible.

(c) In Zostera, the pollen grains are long and ribbon-like and released Inside the water.

(d) Sepals and petals are concealed in entomophilous flowers

Q10. Study the diagram given below and choose the correct option against 'A' and 'B'.



(a) Ovule; A-Egg; B-Polar body

(b) Embryo sac; A-Antipodals; B-Egg

(c) Anther; A-Endothecium; B-Connective

(d) Stigma; A-Central cell; B-Antipodals

Q11. **Assertion :** There are a few species of plants in which fruits develop without fertilisation

Reason : Parthenocarpic fruits are seedless

Q12. **Assertion :** In apomixis plants of new genetic variations are not produced.

Reason : In apomixis, reductional division takes place.

Q13. **Assertion :** Megaspore mother cell undergoes meiosis to produce four haploid megaspores.

Reason : Female gametophyte is produced from a single megaspore

Q14. **Assertion :** The pollen grain represents male gametophyte.

Reason : Pollen grains are shed at four celled stage.

Q15. **Assertion :** Exine is made up of sporopollenin.

Reason : Pollen grains are well preserved as fossils.

Q16. **Assertion :** As the seed matures, its water content is reduced and seeds become relatively dry (10-15% moisture by mass)

Q17. **Reason :** Micropyle facilitates the entry of oxygen and water into the seed during germination.

Q18. **Assertion :** Chasmogamous flowers produce assured seed set.

Reason : Chasmogamous flowers do not open at all.

Q19. Read the following and answer any four questions from 31(i) to 31(v) :-

Apomixis is a mode of reproduction which does not involve formation of zygote through gametic fusion. It is therefore akin to asexual reproduction. In plants apomixis commonly mimics sexual reproduction but produces seeds without fertilisation. Eg. some species of Asteraceae and grasses. Apomixis can be introduced in hybrid varieties. Scientists are busy in identifying genes for apomixis so that they can be introduced in hybrid varieties.

1. In many laboratories, active research is on to comprehend the genetics of apomixis as :
   (a) Apomixis generates genetically different individuals
   (b) Apomixis is the method to produce seeds without fertilisation
   (c) Hybrid plants are directly formed by apomixis
   (d) Transfer of apomictic genes into hybrid varieties that shall prevent hybrid vigour loss over the years
2. Apomixis is a form of :-
   (a) Vernalisation (b) From cuttings of stem
   (c) Without gametic fusion (d) Fusion of gametes
3. In plants, apomixis pertains to plant development :-
   (a) From root cuttings (b) From cuttings of stem
   (c) Without gametic fusion (d) Fusion of gametes.
4. **Assertion :** In apomixis plants of new genetic sequence are produced.

   Reason : In apomixis, two individuals of the same genetic sequence meet.

Q20. Read the following and answer any four questions from 32(i) to 32(v) given below:

The endosperm make the main source of food for the embryo. Generally, the endosperm nucleus divides after the division of the zygote, but in several cases the endosperm is formed to a great extent even before the first division of the zygote. There are three general types of endosperm formation : (a) nuclear type (b) cellular type and (c) helobial type. The endosperm is usually triploid

but haploid endosperm is also found. Endosperm may either be completely consumed by the developing embryo before seed maturation or it may persist in mature seed.

1. One of the following is an example of seed with persistent endosperm.
   (a) Pea (b) Groundnut (c) Gram (d) Castor
2. Significance of endosperm development that precedes embryo formation enhance seed development.
   (a) To nourish the growing embryo
   (b) To enhance seed development.
   (c) To nourish the ovule developing into a seed.
   (d) To provide nutrition to the embryo sac.
3. If the endosperm of a dicot plant contains 30 chromosomes, find the number of chromosomes present in the root cells of the plant.
   (a) 40 (b) 10 (c) 20 (d) 15
4. The endosperm nucleus is :-
   (a) Tetraploid (b) Triploid (c) Diploid (d) Haploid
5. **Assertion :** Nuclear endosperm is formed by subsequent nuclear division

   Reason : Tender coconut water is an example of such an endosperm where the endosperm remains nuclear throughout the development of the fruit.
   (a) Both assertion and reason are true and the reason is the correct explanation of assertion.
   (b) Both assertion and reason are true but the reason is not the correct explanation of assertion.
   (c) Assertion is true but reason is false.
   (d) Both assertion and reason are false.

Revision work sheet-2

Subject - Biology (Human Reproduction)

Q1. The region outside seminiferous tubule is called interstitial space which contains all except :
   (a) immunologically active cells (b) blood vessels
   (c) sertoli cells (d) leydig cells

Q2. Decline of which hormone during menstrual cycle results in the degeneration.
   (a) Progesterone (b) estrogen
   (c) Both 1 and 2 (d) LH

Q3. For normal fertility in males.

(a) atleast 60% sperms should have normal shape and size and atleast 40% should show vigorous motility*

(b) 40% sperms should be normal shape and size and vigorous motility

(c) 60% sperms with normal and shape and size and remaining 40% with high motility.

(d) 40% with normal shape and size and 60%with high motility.

Q4. Which pituitary hormone regulates sertoli cells.

(a) estrogen (b) progestrone (c) FSH* (d) LH

Q5. Which one of the following hormones is responsible for uterine contract during parturition?

(a) relaxin (b) vasopressin (c) oxytocin (d) prolactin

Q6. In human foetus the limbs and digits develop after :-

(a) 8 weeks (b) First trimester (c) 5th month (d) 12 weeks.

Q7. Foetal ejection reflex in human female induces.

(a) release of hormones from placenta

(b) growth and development of ovarian follicles.

(c) release of oxytocin from maternal pituitary

(d) release of prolactin from pituitory.

Q8. Which of the following dipictss the correct pathway for transport of sperms ?

(a) rete testes epididymis vasdeferens vasa efferentia

(b) rete testes vasdeferens vasa efferentia epididymis

(c) rete testes vasa efferentia epididymis vas deferens

(d) rete testes vas deferens epididymis vasa efferentia

Q9. Which of the following statements are correct regarding menstrual cycle?

(a) LH induces rupturing of graffian follicle

(b) proliferative phase is characterized by increased production secretion of progesterone

(c) corpus luteum secretes large amount of estrogen

(d) both FSH and LH attain peak level at secretory phase

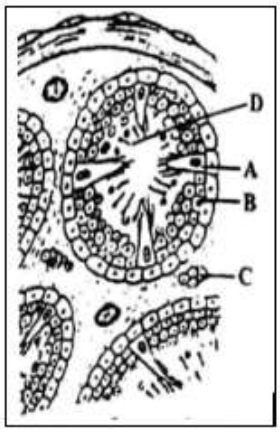
Q10. Match the columns and find the correct option :-

I		II
A.	Proliferative phase	(i) Break down of endometrial lining
B.	Secretary phase	(ii) Follicular phase
C.	menstruation	(iii) Luteal Phase

(a) A-(ii), B-(iii), C-(i) (b) A-(i), B-(iii), C-(ii)

(c) A-(iii), B-(ii), C-(i) (d) A-(iii), B-(i), C-(ii)

Q11. Given below diagram refers to the T. S. of testis showing somniferous tubules. A, B, C and D in the above figure represent.



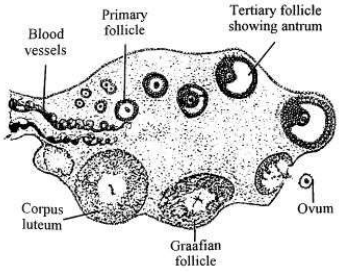
(a) A-Sertoli cells, B-Secondary spermatocytes C-interstitial cells D-sperms

(b) A- interstitial cells B-Spermatogonia C-Sertoli cells D-Sperms

(c) A-Sertoli cells B-spermatozoa C-interstitial cells D-Sperms

(d) A-Sertoli cells B-Spermatogonia C-interstitial cells D-Sperms

Q12. Identify the wrongly labeled part :-



(a) primary follicle

(b) ovum

(c) graffian follicle

(d) corpus luteum

Q13. Urethral meatus refers to the :-

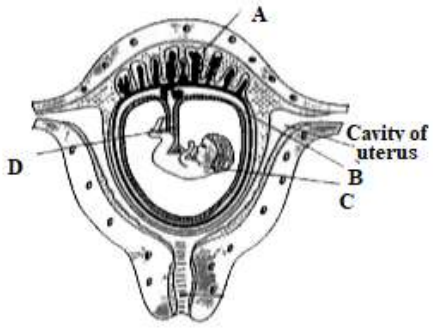
(a) urinogenital duct

(b) opening of vas deferens into urethra

(c) external opening of urinogenital duct

(d) muscles surrounding urinogenital duct

Q14. In the given diagram find out A, B, C and D.



	A	B	C	D
A.	umbilical cord	placental villi	yolk sac	embryo
B.	yolk sac	umbilical cord	embryo	placental villi
C.	placental villi	yolk sac	embryo	umbilical cord
D.	placental villi	embryo	yolk sac	umbilical cord

A human female has maximum number of primary oocytes in her ovaries

(a) at birth (b) just prior to puberty

(c) early fertile years (d) middle age of fertile years

Q15. Hormones secreted by placenta to maintain pregnancy are :-

(a) hCG, HPL, progestogen, prolactin.

(b) hCG, progestogen, oestrogen, glucocorticoids

(c) hCG, hPL, progestogen, oestrogen

(d) hCG, hPL, oestrogen, relaxin, oxytocin

Q16. Read the following statements.

II. Each testes has 25 compartments called testicular lobules.

II. Each testicular lobule contains one to three highly coiled seminiferous tubules in which sperms are produced. activated by FSH

III. Sertoli cells provide nutrition to testicles IV. Sertoli cells are Which of above statements are incorrect?

(a) I and II (b) only I (c) II and IV (d) III and IV

Q17. **Assertion :** Menstruation only occurs if the released ovum is not fertilized.
Reason : Lack of menstruation may be indicative of pregnancy.

Q18. **Assertion :** Menstrual phase is followed by luteal phase.

Reason : During follicular phase the pituitary hormones gradually increase.

Q19. **Assertion :** The embryo at 8 to 16 blastomeres is called morula.

Reason : The morula continuously divides to transform into trophoblast.

Q20. In mammals, the first part of oogenesis starts in the germinal epithelium, which gives rise to the development of ovarian follicles, the functional unit of ovary. Dogenesis consists of several sub processes: oocytogenesis ootido genesis, and inally maturation to form an ovum Folliculogenesis is a separate sub process nat accompanies all three oogenetic sub processes.

1. Which cell division is involved in the formation of secondary oocyte?

(a) Mitosis (b) Meiosis (c) Amitosis (d) Meiosis II

2. Number of chromosomes in first polar body of humans“

(a) 23 (b) 46 (c) 21 (d) 1

3. At fetal life which of the following female germ cells are found.

(a) oocyte (b) primary oocyte

(c) oogonia (d) secondary oocyte

4. At puberty only-number of primary follicles are left in each ovary.

(a) 10,000-25000 (b) 20000-30000

(c) 60,000-80,000 (d) 8,000-10,000

5. **Assertion :** In human beings ovum is released from ovary at ootid stage.

Reason : The secondary oocyte divides into unequal daughter cells, a large ootid and a small polar body.

Subject - Chemistry

1. Learning work.

1. Intext Questions (Theory),
   Solved, Chapter-1 and 2
2. Intext Questions (Theory),
   Unsolved, Chapter-1 and 2
3. Theoreticar questions of Exercise, Chapter-1 & 2.

2. Writing work.

1. Numericals given in Intext questions. Solved and unsolved of Chapter 1 and 2.
2. Numerical given in exercise of chapter-1 & 2.
3. Investigatory Project (based on experiments and contains at least 22 to 25 pages.).

Subject - Physical Education

*** Revesion work**

1. Chapter-1 management of sporting Events Events.
   पाठ–1 खेलों में योजन का प्रबंध
2. Chapter-2 Children and woman in sports.
   पाठ–2 खेल में बच्चे और महिलाएँ।

*** Written book**

1. Topic-24-Procedure of Asanas, Benefits and contrain- dications for any two asanas each lifestyle Diseases.
   आसनों की प्रतिक्रिया इनसे लाभ एंव परहेज तथा जीवन शैली से बीमारी।
2. Topic-26-sports Authority of India (SAI) Khelo India Fitness test.
   शारीरिक फिटनेस टेस्ट
3. Topic-22-Volleyball.

वालीबॉल

Subject - Computer Science (Code 083)

*** Learning work :-**

1. Learn Chapter-1 and Chapter-6 for Unit Test-1.

*** Writing Work :-**

2. Complete the all chapters and exeercise Questions Answers of Chapter-1 and 6 in your notebook.

*** Project File**

(using concept learn in class 11 and 12 (Make project on any one topic) :-

1. Student Management System Project
2. Bank Management System.
3. Library Management System Project.
4. Product Inventory Management Project.
5. Employee Attendance System project.
6. Health administration
7. Password manager
8. School management
9. Contact book
10. GST billing system
11. Online auction system
12. Online bus reservation
13. Hotel Management system.
14. Task management application
15. Flight Management System.

*** Practical File (Report File) :-**

1. Minimum 15 Python programs.
2. SQL Queries--Minimum 5 set using one table/Two tables.
3. Minimum 4 program based on python -SQL connectivity.