

Established in: 1984



Shri Datta Prasadik Shikshan Prasarak Mandal's,

**Late Rajkamalji Bharti Arts, Commerce and Smt. Sushilabai R.
Bharti Science College Arni, Dist-Yavatmal.**

*Affiliated to Sant Gadge Baba Amravati University, Amravati
NAAC Accredited (First Cycle)*

Dr. Kirantai S. Bharti
President

Adv. Siddharth S. Bharti
Secretary

Dr. N. A. Pistulkar
Principal

Phone (Office): 07234 – 295468,

Website: www.smdb.ac.in,

E-mail ID: smdbacc418@sgbau.ac.in

2.5.1: Mechanism of internal/ external assessment is transparent and the grievance redressal system is time-bound and efficient

Established in: 1984



Shri Datta Prasadik Shikshan Prasarak Mandal's,

Late Rajkamalji Bharti Arts, Commerce and Smt. Sushilabai R. Bharti Science College Arni, Dist-Yavatmal.

Affiliated to Sant Gadge Baba Amravati University, Amravati
NAAC Accredited (First Cycle)

Dr. Kirantai S. Bharti
President

Adv. Siddharth S. Bharti
Secretary

Dr. N. A. Pistulkar
Principal

Phone (Office): 07234 - 295468,

Website: www.smdb.ac.in,

E-mail ID: smdhacc418@sgbau.ac.in

Session From 2018-19 to 2022-23

Head of Faculty: (Time Table, CIE Committee & Other Activities)

Sr. No.	Activities	Name of Faculty In-charge	Signature
1	Arts Faculty: Preparation of Time Table, Internal Evaluation of students and other activities related to curriculum.	Mr. S. N. Bole	
2	Commerce Faculty: Preparation of Time Table, Internal Evaluation of students and other activities related to curriculum.	Dr. V.R. Mahure	
3	Science Faculty: Preparation of Time Table, Internal Evaluation of students and other activities related to curriculum.	Dr. M. R. Kakpure	

Principal
Late R. Bharti Arts, Com. &
Smt. S. R. Bharti Sci. College
Arni, Dist. Yavatmal



**Late Rajkamalji Bharti Arts, Commerce and Smt. Sushilabai R.
Bharti Science College Arni, Dist-Yavatmal.**

DEPARTMENT OF ZOOLOGY

UNIT TEST NOTICE

(Sum-2019)

All the students having Zoology subject of
B.Sc. are informed that the Unit Test Schedule of the Subject:
Zoology is to be conducted as follows.

Class	Unit test I st	Unit test II nd
BSc I Sem: II	07/01/2019	20/02/2019
BScII Sem:IV	05/01/2019	26/02/2019
BScIII Sem:VI	11/01/2019	21/02/2019

All students should be present on same date for the Unit Test.


Head
Department of Zoology
Late R.Bharti Arts. Com. &
Bmt.S.R Bharti Sci. College.
Arni, Dist-Yavatmal.

**L. RAJKAMALJI BHARTI ARTS, COMMERCE AND
SMT.S. R. BHARTI SCIENCE COLLEGE, ARNI. DIST. YAVATMAL
DEPARTMENT OF ZOOLOGY**

**UNIT TEST - I
Question Paper**

Class: B.Sc.- II: (Sem-IV)

Marks:30

.....
N.B. I) All questions are compulsory. II) Illustrate your answer with suitable diagrams wherever necessary.

Q1 (A) Fill in the blanks:

02

- (1) The genetic makeup of an individual is known as.....
- (2) Temperature dependent sex determination is found in.....
- (3) Is the permanent form of birth control
- (4) Is the pneumatic disease

(B) Choose correct alternative from the following:

02

- (1) Crossing over bring about recombination of
a) Gene b) DNA c) RNA d) None of these.
- (2) Human skin colour is
a) monogenic b) Daigenic c) heterogenic d) none of these.
- (3) Which of the following is not a climatic factor
a) Rain b) Storm c) Substratum d) Water
- (4) Various forms of the genes
a) Alleles b) Codon c) RNA d) DNA

(C) Answer in one sentence.(Any Four)

04

- (1) Why law of segregation is called law of purity of gametes?.
- (2) What is the predictive testing?
- (3) Which disease is called as royal disease?
- (4) What is in-situ hybridization?

Que.2: Write short answer:

16

- (a) Complementary factor.
- (b) Complete and incomplete linkage.
- (c) XX-XY type sex determination.
- (d) Hemophilia.

Que.3 : Describe the following.

06

- (1) What is mean by interaction of gene? Explain the complementary factor


Head
Department of Zoology
Late R.Bharti Arts, Com &
Smt.S.R Bharti Sci. College,
Arni, Dist-Yavatmal

Unit - Test - I

Q.1) Fill in the blanks
(A)

1) The genetic make up of an individual is known as Mendelian ratio

2) Temperature dependant sex determination is found in reptiles

3) Sterilization is the permanent form of birth control.

4) Emphysema is the pneumatic disease.

(B)

1) Crossing over brings about recombination of gene

2) Human skin colour is

→ ① polygenic

3) which of the following is not a climatic factor

→ Substratum

4) various forms of the given -
→ alleles

(C) Answer in one sentence -

1) Why law of segregation is called law of purity of gametes?

→ The gamete receive only one gene out of two genes responsible for a particular character i.e gametes are pure in sense that they carry single factor for one character and not both. Hence the law of segregation is also known as 'the law of purity of gametes'.

2) what is predictive testing?
→ predictive testing is a form of genetic testing. It is also known as presymptomatic testing.

3) which disease is also called as royal disease?

→ Christmas disease is also called as Royal Disease.

4) what is in-situ hybridization?

→ In-situ hybridization (ISH) is a type of hybridization that uses a labeled complementary DNA, RNA or modified nucleic acids strand.

Q.2)

1) Complementary factor?

→ Complement factor 1, also known as C3b/C4b inactivator, is a protein that in humans is encoded by the CF1 gene. Complement Factor 1 (Factor 1) is a protein of the complement system, first isolated in 1966 in

guinea pig serum, that regulates complement activation by cleaving cell bound or fluid phase C3b and C4b. It is a soluble glycoprotein that circulates in human blood at an average concentration of 35 $\mu\text{g/mL}$ -

CFI

Available structures -

PDB - ortholog search: PDB e RCSB

List of PDB codes

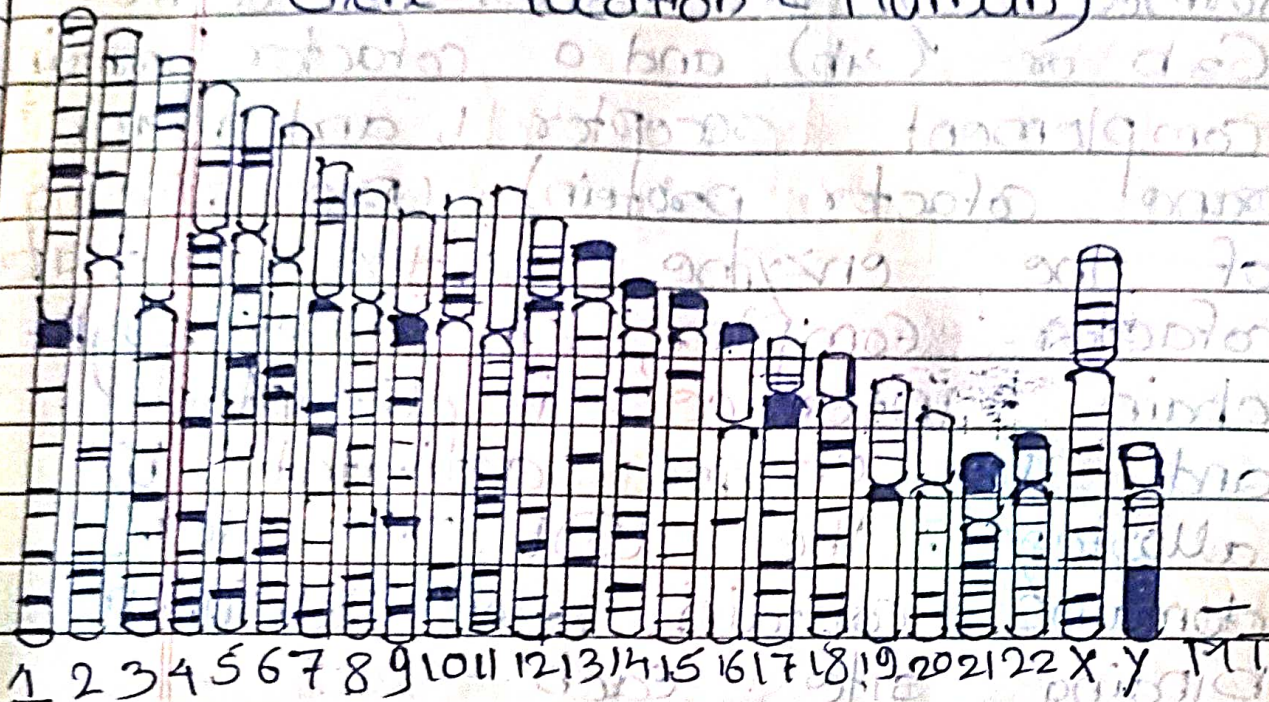
2XRC

Identification

Aliases - CFI, ANXG3, A12MD3, C3BINA, C3b-INA, FI, IF, KAF
complement factor

External IDs - OMIM: 217030 C1G1: 105437 Homologene: 171
Gene Cards: CFI

Gene location (Human)



Chromosome 4 (human)

Factor 1 is a glycoprotein heterodimer consisting of a disulfide linked heavy chain and light chain.

The factor 1 heavy chain has four domains: an F1 membrane attack complex (F1MAC) domain, (D5 domain) and low density lipoprotein receptor 1 and 2 (LDL₁ and LDL₂) domains. The heavy chain plays an inhibitory role in maintaining the enzyme inactive until it meets the complex.

formed by the substrate (either C3b or C4b) and a cofactor protein (complement receptor 1, and membrane cofactor protein). Upon binding of the enzyme to the substrate cofactor complex, the heavy-light chain interface is disrupted and the enzyme activated by allostery. The ED₂ receptor domains contain one calcium-binding site each.

The Factor 1 light chain contains only the serine protease domain. This domain contains the catalytic triad His-362, Asp-411, and Ser-507, which is responsible for specific cleavage of C3b and C4b. Conventional protease inhibitors do not completely inactivate Factor 1 but they can do so if the enzyme is pre-incubated with its substrate: this supports the proposed rearrangement of the molecule upon binding.

to the substrate -

Both heavy and light chains bear Asn-linked glycans, on three distinct glycosylation sites each.

Crystal structure - the crystal structure of human Factor I has been deposited as PDB: 2XRC.

parents (P) white flower x white flower
phenotype (Due to absence of gg gene) (Due to absence of gene)

CC PP

cc PP... Genotype

Gametes

(cP)

(cP)

CcPp

... All purple

F₁ generation

F₁ selfing CcPp x CcPp

F₁ Gametes (CP)(Cp)(cP)(cp) x (CP)(Cp)(cP)(cp)

F₂ generation

checker board.

$\frac{\text{♀}}{\text{♂}}$	CP	Cp	cP	cp
CP	CC PP Purple	CC Pp purple	Cc PP purple	Cc Pp purple
Cp	CC Pp purple	Cc pp white	Cc Pp purple	Cc pp white
cP	Cc PP purple	Cc Pp purple	cc PP white	cc Pp white
cp	Cc Pp purple	Cc pp white	Cc Pp white	Cc pp white

Fig 8 - production of 9:7 phenotypic ratio in Sweet pea due to complementary gene -

Table - Result analysis of cross between two white flowered Sweet pea plants

Phenotype	Genotype	Genotype ratio	Phenotype ratio
purple	CC PP	1	9
	CC Pp	2	
	Cc PP	2	
	Cc Pp	4	
white	CC pp	1	7
	Cc pp	2	
	cc PP	1	
	cc Pp	2	
	cc pp	1	

In above example p locus possesses purple colour allele P dominant to white allele p and C locus have colour allele C dominant to white allele c. Due to interaction of complementary genes homozygous recessives of either locus or C results in white. Flower purple colour of flower is produced when C and P is present together white flower are produced when C or

p is present along with all recessives i.e. $ccpp$, $ccppi$ or if all recessives are present i.e. $ccpp$.

Thus gene p and c complement each other to produce purple colour to flower. Hence are referred as complementary factor or gene -

2) Complete and incomplete linkage?

1) Complete linkage -

The complete linkage is phenomenon in which parental combinations of characters appear together for two or more generation in a continuous and regular fashion. In this type of linkage genes are closely also called and tend to transmit together -

Examples - The gene for bent wings (bb) and shaven bristles (sup) of the fourth chromosome mutant of *Drosophila melanogaster* exhibit complete linkage -

In genetics, complete linkage is defined as the state in which two loci are so close together that alleles of these loci are virtually never separated by crossing over. The closer the physical location of two genes on the DNA, the less likely they are to be separated by a crossing-over event. In the case of male *Drosophila*, there is complete absence of recombinant types due to absence of crossing over. This means that all of the genes that sort out on a single chromosome will end up on that same chromosome in their original configuration. In the absence of recombination, only parental phenotypes are expected.

parents :- grey vestigial x black long
 b^+vg^+ / b^+vg^+ bvg^+ / bvg^+

Gametes :- (b^+vg^+) (bvg^+)
 F_1 :- all grey long
 b^+vg^+ / bvg^+

Test Cross F_1 male grey long x Female black long
 b^+vg^+ / bvg^+ bvg^+ / bvg^+

Gametes :- (b^+vg^+) (bvg^+)
 Only two types of gametes
 due to complete linkage
 and black of crossing over
 in male *Drosophila*

Test Cross ratio :- $\frac{1}{2}$ grey vestigial
 b^+vg^+ / bvg^+
 $\frac{1}{2}$ black long or 1:1
 bvg^+ / bvg^+

Here the use of the
 test cross is very important
 Because one parent (G.T. the
 tester) contributes gametes

by carrying only recessive alleles, the phenotypes of the offspring represent the gametic contribution of the other double heterozygote. An analyst can concentrate on one meiosis and forget the other. This is contrast to the situation in an F_1 selfing where there are two sets of meiotic divisions to consider one for the F_1 male parental gametes and one for the F_1 female.

2) Incomplete linkage:

The linked genes do not always stay together because homologous non-sister chromatids may exchange of chromosomal segments in between. Homologous chromosomes is known as crossing over. The linked genes which are widely located in chromosomal and have chance of separation and have chance of separation by crossing over are called.

incompletely linked gene and the phenomenon of their inheritance is called incomplete linkage or partial linkage (Brown, 2002).

Examples: The incomplete linkage has been reported in female *Drosophila* and various other organisms such as tomato, maize, pea, mice, poultry and human being, etc. Here the example of incomplete linkage have been considered only for *Drosophila* and maize.

1) Incomplete linkage in female *Drosophila* when F_1 females of the Morgan's classical cross in *Drosophila* between grey vestigial (b^+vg/b^+vg) and black normal or long (bvg^+/bvg^+)

were test - crossed to double recessive (bvg/bvg) males, all. Four types of progeny were obtained in following ratio - showing occurrence of crossing over: -

parents - grey, vestigial $\times$ black, long
 $b^+vg/b^+vg \quad bvg^+/bvg^+$

Gametes - (b^+vg) (bvg^+)

F₁ - grey, long
 b^+vg/bvg^+

Test cross: - F₁ female grey, long $\times$ male, black, vestigial
 $b^+vg/bvg^+ \quad bvg/bvg$

Gametes - (b^+vg) (bvg^+) = Non-crossovers (bvg)
 $(b^+vg^+)(bvg) =$ Recombinants

Test cross ratio: - 1. grey, vestigial, b^+vg/bvg = 41.5%
 2. black long, bvg^+/bvg = 41.5%
 83% parental combination showing linkage.

3) grey, long s - $b^+ vg^+ / b vg = 8.5\%$

4) black, vestigial, $b vg / b vg = 8.5\%$

17% recombinants due to crossing over.

similar different test

cross ratios showing complete linkage in males and incomplete linkage in females) were obtained

For F_1 males and incomplete and females of *Drosophila* by Bridges one of the students of Morgan. He made a

cross between fruit flies having wild dominant alleles for red eye colour and normal wings ($pr^+ vg^+ / pr^+ vg^+$) and having mutant recessive alleles for purple eye colour and vestigial wings ($pr vg / pr vg$).

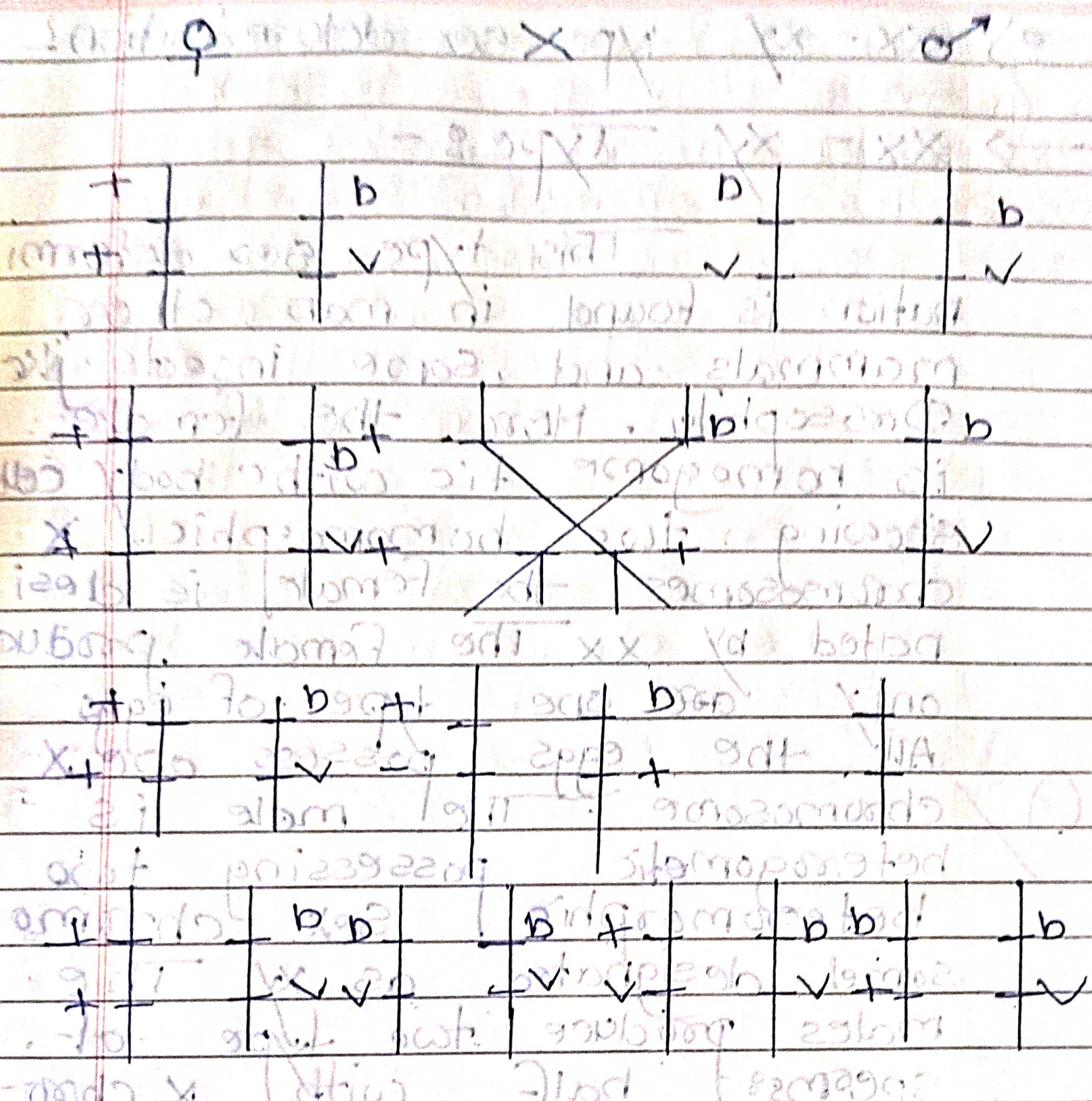


Fig- Diagram showing incomplete linkage in linked gene for body colour and wing shape in *Drosophila* b = black body, v = vestigial wings + = grey body and + = long wings (after Robertis et al, 1970)

3) $XX - XY$ type sex determination?

→ $XX - XY$ Type :-

This type sex determination is found in man, other mammals, and some insects like *Drosophila*. Here the female is homogametic with body cells showing two homomorphic X chromosomes. The female is designated by XX . The female produces only one type of eggs. All the eggs possess one X chromosome. The male is heterogametic possessing two heteromorphic sex chromosomes designated as XY . The males produce two types of sperm: half with X chromosome and the other half having Y-chromosome. The type of sperm that is involved in fertilization

decides that sex of the offspring
If the egg is fertilized by a
sperm having x-chromosome, the
egg is fertilized by a sperm
having y-chromosome the offse-
pring is a male -

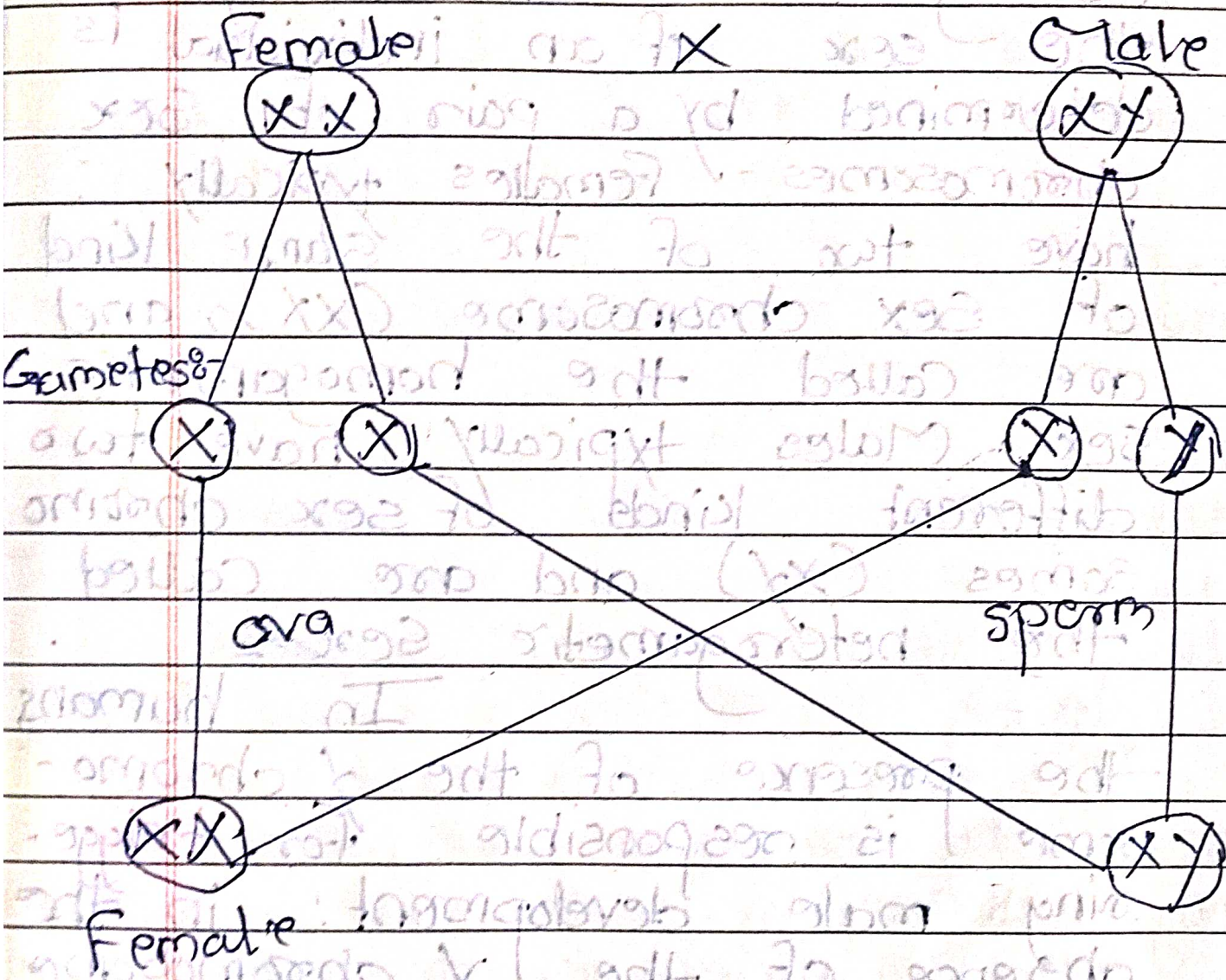


Fig: - xx - xy type of sex
determination -

The XY sex-determination system is the sex-determination system found in humans, most other mammals, some insects (Drosophila), some snakes, some fish (guppies), and some plants (Ginkgo) etc. In this system, the sex of an individual is determined by a pair of sex chromosomes. Females typically have two of the same kind of sex chromosome (XX), and are called the homogametic sex. Males typically have two different kinds of sex chromosomes (XY) and are called the heterogametic sex.

In human, the presence of the Y chromosome is responsible for triggering male development. In the absence of the Y chromosome, the fetus will undergo female development. Specifically, it is the SRY gene located on the Y chromosome that is of

importance to male differentiation-

4) Hemophilia:-

→ Haemophilia is a mostly inherited genetic disorder that impairs the body's ability to make blood clots, a process needed to stop bleeding. This results in people bleeding for a longer time after an injury, easy bruising, and an increased risk of bleeding inside joints or the brain.

Those with a mild case of the disease may have symptoms only after an accident or during surgery. Bleeding into a joint can result in permanent damage while bleeding in the brain can result in long term headaches. Seizures, or a decreased level of consciousness.

There are two main types of haemophilia. A) which occurs due

to low amounts of clotting factor VII, and haemophilia B which occurs due to low levels of clotting factor IX.

They are typically inherited from one's parents through an X chromosome carrying a nonfunctional gene. Rarely a new mutation may occur during early development or haemophilia may develop later in life due to antibodies forming against a clotting factor. Other types include haemophilia C, which occurs due to low levels of factor XI, and paroxysmal nocturnal haemoglobinuria which occurs due to low levels of factor V. Acquired haemophilia is associated with cancers, autoimmune disorders, and pregnancy. Diagnosis is by testing the blood for its ability to clot and its levels of clotting factor.

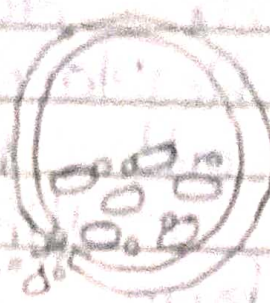
prevention may occur by removing an egg, fertilizing it, and testing the embryo before transferring it to the uterus. Treatment is by replacing the missing blood clotting factors. This may be done on a regular basis or during bleeding episodes. Replacement may take place at home or in hospital.

The clotting factors are made either from human blood or by recombinant methods. Up to 20% of people develop antibodies to the clotting factors which makes treatment more difficult.

The medication desmopressin may be used in those with mild haemophilia A. Studies of gene therapy are in early human trials.

Haemophilia A affects about 1 in 5,000 - 10,000, while haemophilia B affects about 1 in 40,000, males at birth.

HEMOPHILIA



Normal	Bleeding	HEMOPHILIA	Complete
Blood	Stops	Incomplete	Fibrin
vessel		clot	clot

Continued bleeding

(Q.3)

Q) what is meant by interaction of gene? explain the complementary factor.

→ Gene Interaction: -
Stephan H. Hodgkin, in Encyclopedia of Genetics, 2001 -
The term gene interaction has also been used with reference to direct physical interaction between gene products most usually protein - protein interaction. Though protein - RNA, protein - DNA, RNA - RNA, and RNA - DNA interaction may also be encountered. These physical interaction often involve high affinity, stable binding, which can be easily detected by biochemical methods, but may alternatively involve transient phenomena, such as protein modification or cleavage.

Weak or transient interactions and can often only be detected by genetic methods.

Genetic approaches, however, cannot usually distinguish between direct and indirect

interaction. It may be

that the genetic analysis of two genes suggests

strongly that their products interact, but strongly that

their products interact, but

this interaction may in fact

be mediated by some additional

factor, so that the

two products never come into

actual physical contact. The

genetic data can nevertheless

provide evidence for

involvement in the same

pathway or process.

GENE INTERACTIONS

* Gene interaction occurs when two or more different genes influence the outcome of a single trait.
* Interaction between alleles or nonallelic genes of the same genotype in the production of particular phenotypic character -

Introduction :-

Definition :- The phenomenon of two or more genes affecting the expression of each other in various ways in the development of a single character of an organism is known as gene interaction.

Most of the character of living organism are controlled / influenced / governed by a collaboration of several different genes.

Mendel and other workers assumed that character are governed single genes but

later it was discovered that many characters are governed by two or more genes - such genes affect the development of concerned character in various ways - this lead it to the modification of the typical dihybrid ratio ($9:3:3:1$) or trihybrid ($27:9:9:9:3:3:3:3:1$)

Complementary gene Interaction :-

- 1) If both gene loci have homozygous alleles and both of them produce identical phenotypes then the F_2 ratio becomes $9:7$ instead of $9:3:3:1$.
- 2) In such case, the genotype $aaBB$, $aaBb$, $Aabb$, $aabb$ produce one phenotype -

3) Both dominant alleles when present together each other are called complementary gene and produce a different phenotypic type -

Types of Gene Interactions:

- Gene interaction can be classified as -

a) Allelic / non epistatic gene interaction - This type of interaction give the classical ratio of 3:1 or 9:3:3:1 -

b) Non-allelic / epistatic gene interactions - In this type of gene interaction genes located on same or different chromosome interact with each other for their expression -

Discovery of non allelic gene interaction has been made after Mendel and can be best understood by studying phenotypic trait of gene-

parents Red flower $\times$ white flower

Genotypes RR rr

F_1 Rr pink flower

Selfing

$\begin{matrix} R & r \end{matrix}$	R	r
R	RR Red	Rr Pink
r	Rr Pink	rr white

Genotype	phenotype	Ratio
RR	Red	1
Rr	pink	2
rr	white	1

Complementary Factors - These genes are said to be as Complementary genes when these are located on separate gene loci, which inter act to produce a particular or phenotypic trait. In absence of one or both the genes produce recessive or alternative character. Here the genes are called complementary genes -

It has been found that certain characters are produced by interaction of two genes inherited

From parental generation. These genes are said to be as complementary genes when these are located on separate gene loci which interact to produce a particular or phenotypic trait. But neither of the of the genes have their phenotype expression of its own. They could not be expressed phenotypically in the absence of the other. In absence of one or both the genes produce recessive or alternative character. Here the genes are called Complementary genes.

Example -

W Bateson and R.C. Punnett (1902) worked on *Lathyrus odoratus* (Sweet pea) to explain the phenomenon

of complementary interaction factors - They selected two true breeding varieties of white flowered Sweet pea plants with genotype " $ccrr$ " and " $RRcc$ " respectively - The made artificial crosses between two. In F_1 generation all red flowered plants were obtained with genotype " $CcRr$ " -

In F_2 the F_1 plants were subjected to self pollinated. In F_2 it was found that the off springs resulted in the ratio of 9:7 out of which 9 showed phenotypically red flower and 7 appeared as phenotypically white -

F_1 Generation's -

parental type: - white flowered $\times$ white flowered -

(CC: ∞) (R: 12 CC).

F₁ generation: - All Red flower

(C ∞ : R ∞).

F₁ - gametes - CR, Cr, cR, cr

F₂ - Generation: (Checker-board)

Explanation -

From above experiment it is to be noted that red flowered plants with both complementary "C" and "R" were 1 in 9 off springs whereas white flowered plants in which either of the complementary gene "C" or "R" is present are seven in number -

The above checker board shows that red coloration of flower is due to interaction of two

complementary factor "c" and "R". The white coloration of flower is due to lacking of either "c" or "R" gene in the genotype of the individual. In F_2 generation plants with both "c" and "R" genes are present together which exhibit the Red coloration due to the phenotypic expression of the dominant "R" gene along with complementary "c" gene.

Therefore the phenotypic expression is modified from 9:3:3:1 into 9:7 -

This surprising result was understood by analyzing the mechanism of color production in flowers colour. In flowers is produced by anthocyanin pigment. Here the gene "c" is responsible for production of enzyme

that catalyses the enzyme
that catalyses the process
of any chemicals for production
of an intermediate complex
in pigment formation, where
as gene 'R' is responsible
for production of
enzyme which catalyses
complex into the colour
producing pigment. Antho-
cyanin. Therefore both
'C' gene and 'R' gene
have their combined effect
in production of anthocyanin
pigment - But alone 'C'
'gene' or 'R' gene cannot
help in production of
anthocyanin pigment -

re

244 = 250 - 36

Q.1) (A) 1000 number of eggs (1000) of 1st lot of (150) 1st lot

- i) sterilization is permanent form of birth control -
- ii) Intraspecific competition is the comp^t among - Individuals of a population
- iii) The basis are roughly of the shape of o
- iv) A relation which is harmful of both population is both is Population.

Q.2) (B) 2000 number of eggs (2000) of 2nd lot

- i) Light has significant effect on Reproduction

- ii) In Commensalism which is one species is benefitted while other remain unaffected

i) CVS is usually performed between Ten to Twelve (10 to 12)

ii) A gene is located at 17 chromosome -

(C)

! what is genetic probe?

→ gene probe (DNA probe) A single stranded DNA or RNA fragment used in genetic engineering to search for a particular gene or other DNA sequence. The probe has a base sequence.

ii) what is Aestivation

→ Aestivation or aestivation (from Latin aestas, summer, but also spelled estivation in American English) is a

state of animal dormancy
Similar to hibernation, although
taking place in the summer rather
than the winter.

iii) type of Melanin?

→ The three types of Melanin

- 1) Eumelanin.
- 2) pheomelanin
- 3) Neumelanin.

1) Eumelanin: — makes mostly dark
colours in hair, eyes and skin.
There are two types of eumelanin
brown and black.

2) pheomelanin: — colours the
pinkish parts of your body
like the pink lips and
you get red hair when you
have the same amount of
pheomelanin and eumelanin —

3) Neumelanin: — Controls the
colours of nervous. It isn't
involved with the coloring of
things you see —

iv) what is Lotic ecosystem?

→ Lotic ecosystems are those which have "flowing water (streams)" as the aquatic component. Stream ecosystems include physical aspects of the flowing water, chemical content and processes that occur in the stream.

2.2) Short answer: (any 4).

1) ~~Amnio synthesis~~ - Amniocentesis

→ Amniocentesis is usually performed in the second trimester, between 15 and 18 weeks of pregnancy. However, it can be performed as early as 12 weeks or as late as 20 weeks. Amniocentesis is a specialized test that involves taking a sample of amniotic fluid from the

uterus (Carmb). The fluid is then examined in the laboratory to determine whether your baby has any serious abnormalities. It is a diagnostic test, which means it can tell with almost complete certainty whether or not your baby has a particular condition. As well as diagnosing chromosomal abnormalities, it can also tell whether your baby's lungs are mature. Using ultrasound for guidance, your doctor will identify a pocket of amniotic fluid at a safe distance from your baby and the placenta. She will then insert a long, thin, hollow needle to withdraw a small amount of amniotic fluid - about two tablespoons. This fluid contains cells from your baby's chemicals and micro-organisms that can ans-

over many questions about your baby's health. Guiding the needle to the right position using the ultrasound scan can take up to 20 minutes. Inserting the needle and withdrawing the amniotic fluid takes only about five minutes. Once the needle is out, you may have some tummy cramps. The doctor will monitor you for a while to check whether you are having any uterine contractions and to listen to your baby's heart to make sure he has not become distressed by the procedure. The test can identify several hundred genetic disorders, including some of the most common chromosomal disorders. Such as Down's syndrome, trisomy 18, also known as Edwards

Syndromes - Neural tube defects
such as Spina bifida and
anencephaly

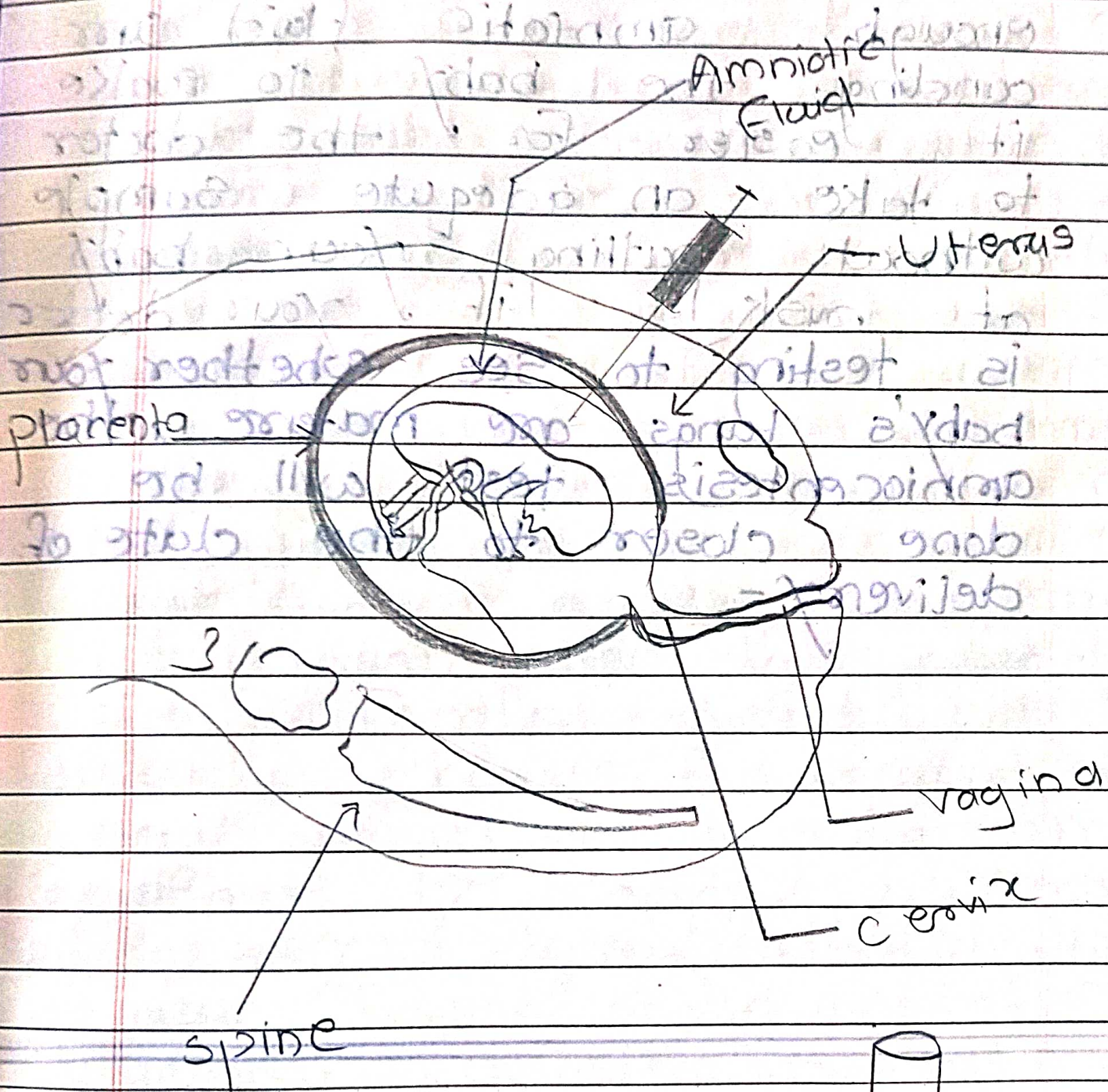
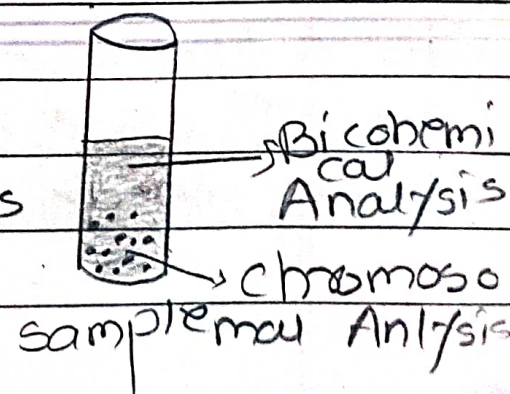


Fig - Amniocentesis



Amniocentesis before 14 weeks has been shown to carry a higher risk of miscarriage. By the second trimester there is enough amniotic fluid surrounding the baby to make it easier for the doctor to take an adequate sample without putting your baby at risk. If your doctor is testing to see whether your baby's lungs are mature, the amniocentesis test will be done closer to the date of delivery -

ii) Effect of light on reproduction :-

→ In many terrestrial animals birds and some aquatic vertebrates light is necessary for the activation of gonads and in initiating annual breeding activities. The gonads of birds and also of other animals are found to become active with increased illumination during summer and regress during shorter periods of illumination in winter. Such animals can be brought to sexual activity if exposed to low illumination. Animals like stickle back fish, ground squirrels and guinea pigs are not affected by length of exposure to day light. Artificial light also have shown effect on gonadal activity in most of animals. Light in some cases (e.g. salmon larvae) accelerates.

development, whereas in other (e.g., *Cytilus* larvae) it retards it.

Species such as *Barbus* and *Barbus* have their reproduction affected by photoperiod. The interruption of the dark period by light exposure for several hours increases the number of egg masses as compared to animals kept in conditions of normal uninterrupted photoperiod. Temperate fish like *Plecoglossus* and *Fluviatilis* that spawn in increasing photoperiods have low fertility when subjected to long photoperiods like 16 hours or 24 hours of light because these differ greatly from their natural photoperiods of the breeding season (Miyahara et al. 2006). Even in tropical fishes, such as *Betta splendens*,

ndens, which do not have a defined breeding season, fertility was affected by photoperiod, that act in the maturation of gametes and quality of spawning (Lubzens et al., 2010).

Pop Energy Flow in an Ecosystem -
Energy flow is the movement of energy through an ecosystem from the external environment through a series of organisms and back to the external environment. It is one of the fundamental processes common to all ecosystems -
3 Energy can be defined as the capacity to do work. According to the first law of thermodynamics, light energy of the ecosystem is converted into potential energy of the food by producers pass on the consumers

in the form of eating and being eaten with gradual loss of energy from the base to the apex of the food pyramid of an ecosystem. The measure of this gradual loss of energy is called entropy.

In all the earth's ecosystem, both terrestrial and marine, about 100 to 170 billion metric tons of dry organic matter are produced annually. This amount of organic matter is presented to the earth by plants each year and constitutes net primary production. The energy in to chemical energy in that system - net primary productivity is the rate at which plants make chemical energy available to consumers and decomposers for storage or expenditure. Depending upon the

type of plant and other factors, the amount of

organic matter used up in plant respiration ranges from 1.5% to 7.5% of the total

amount of organic matter produced by the plants. The source

of energy is the Sun.

The energy generated from the Sun is in the form of

electromagnetic radiation including light, heat and other

forms of energy. About 99% of energy reaches the earth's

surface in the form of visible light, infrared light

and ultra violet radiation.

Energy flow is unidirectional -

The solar energy trapped by the autotrophs

cannot be returned to solar system again and similarly

the energy of primary consumers cannot go back

to autotrophs and from Secondary to primary consumers and so on. That is energy can flow from one trophic level to the next one but cannot return back.

Ecologists use these models to illustrate energy flow and feeding relationship in an ecosystem.

iv) Estuarine ecosystems:-

→ Characteristics:- Estuaries form a transition zone between river (Fresh water) environments and ocean (Salt water) environments. They are subject both to marine influences such as flows of fresh water and ocean sediment. So the productivity of estuaries is

ecosystem is high because of the availability of minerals for both sides -

Estuaries are typically classified according to their geomorphological features or to their geomorphological features or to water circulation patterns. They can have many different names, such as bays, harbours, lagoons. The most important variable characteristics of estuary water are the concentration of dissolved oxygen, salinity and sediment load.

There is extreme spatial variability in salinity, with a range of near zero at the tidal limit of the tributary river(s) to 3.2‰ at the estuary mouth. At any one point the salinity will vary considerably over time and seasons, making it a harsh environment for organisms.

Sediment did often settle in intertidal mudflats which are extremely difficult to colonize. (b) points of attachment exist for algae, so vegetation on based habitat is not established. Estuaries provide habitats for a large number of organisms and support very high productivity. Estuaries provide habitats for many fish nurseries depending upon their location in the world, such as Salmon and sea trout. Also, migratory bird populations such as the black-tailed gull with *Limosa limosa* is lanelled make essential use of estuaries.

Q-3) Long questions -

Genetic counseling risk of marriages in affected family -

→ Genetic counseling is the process of advising individuals and families affected by a risk of genetic disorders to help them understand and adapt to the medical, psychological, and genetic contributions to disease. The process integrates

Interpretation of family and medical histories to assess the chance of disease occurrence or recurrence.

Education about inheritance, testing, management, prevention, resources -

- Counseling to promote informed choices and adaptation to the risk or condition.

The risk of recurrence in specific relatives, this then it helps the family understand the alternatives for dealing with the risk of recurrence. Next genetic counseling assists in helping the family choose the course of action which seems the most appropriate in view of their risk, their family goals and their ethical and religious standards, and act in accordance with that decision. Genetic counseling ultimately strives to help the family make the best possible adjustment to the

disorder in an affected family member and/or to the risk of recurrence of that step that takes the longest. Genetic Counseling may involve in testing to determine the genetic state of the client. Genetic Counseling ultimately strives to help the family make the best possible adjustment to the disorder in an affected family member and/or to the risk of recurrence of that disorder -

Genetic counselors generally adopt a non-directive approach to working with clients -

The counselor will give clients relevant medical information and describe the options information and describe the options available -

The task of the counsellor is to assist one of assisting clients to make a decision in accordance with their own values, beliefs, and goals.

The genetic counselling may be advised the risk of marriage in affected families.

1.) The persons or families with a history of a known genetic disorder e.g. Huntington disease, cystic fibrosis, haemophilia, muscular dystrophy, PKU, haemophilia or polycystic kidney disease.

2.) This persons or families with a history of a known chromosomal abnormality.

**L. RAJKAMALJI BHARTI ARTS, COMMERCE AND
SMT.S. R. BHARTI SCIENCE COLLEGE, ARNI. DIST. YAVATMAL
DEPARTMENT OF ZOOLOGY
UNIT TEST – I & II (2019-20) Class: B.Sc.- II: (Sem-IV)
Attendance Sheet**

Unit Test Submission B.Sc. II (Sem IV)					
Sr. No	Name of student		dign		dign
1.	Ku. Pallavi Sunesh Pawade		Pawade		Pawade
2.	Ku. Pallavi Dilip Bharme		Bharme		Bharme
3	Ku. Dipali B. Khodankar		Khodankar		Khodankar
4)	Rahul G. Jadhav		Jadhav		Jadhav
5)	Puja. P. Chavhan		Chavhan		Chavhan
6)	Pallavi J. Chavhan		Chavhan		Chavhan
7)	Komal R. Pachkhande		Pachkhande		Pachkhande
8)	Somiksha S. Gayakwad		Gayakwad		Gayakwad
9)	Karfic D. Gadhane		Gadhane		Gadhane
10)	Vaishnavi S. Kute		Kute		Kute
11)	Dhamndip D. Gawai		Gawai		Gawai
12)	Ishaak U. Jadhav		Jadhav		Jadhav
13)	Bhushan G. Mandakkar		Mandakkar		Mandakkar
14)	Fiza S. Sheikh		Sheikh		Sheikh
15)	Yash V. Lad		Lad		Lad
20)	Shifa Asif Khan		Khan		Khan
21)	Tejaswini Gajanan Mundhe		Mundhe		Mundhe
22)	Mareshwari S. Wankhade		Wankhade		Wankhade
23)	Ayushi P. Ingole		Ingole		Ingole
24)	Ku. Unnati B. Bharme		Bharme		Bharme
25)	Mayuri D. Rathod		Rathod		Rathod
26)	Shraddha B. Rathod		Rathod		Rathod
27)	Neha K. Godambe		Godambe		Godambe
28)	Hemanta V. Surjuse		Surjuse		Surjuse
29)	Abdul Hakim		Hakim		Hakim
30)	Ku. Ambika D. Kochade		Kochade		Kochade

Head
Department of Zoology
Late R. Bharti Arts, Com &
Smt. S. R. Bharti Sci. College,
Arni, Dist. Yavatmal

LATE RAJKAMALJI BHARTI ARTS, COMMERCE AND SMT. SUSHILABAI R.
BHARTI SCIENCE COLLEGE, ARNI DIST.YAVATMAL

DEPARTMENT OF BOTANY

Assignment

Class: B.Sc.-II (Sem-IV)

Max. Mark-06

Assignment topics

Que: 1		Explain mechanism and types of crossing over
Que: 2		Explain in detail fluid mosaic model of plasma membrane



Dr. U. A. More
Assistant Professor
Department of Botany
Late R. Bharti Arts, Comm. &
Smt. S.R. Bharti Sci. College, Arni.

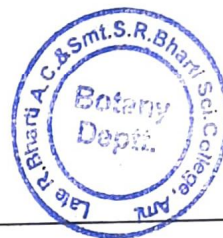
Dr. M. R. Kakpure
Head and Assistant Professor
Department of Botany
Late R. Bharti Arts, Comm. &
Smt. S.R. Bharti Sci. College, Arni

LATE RAJKAMALJI BHARTI ARTS, COMMERCE AND SMT. SUSHILABAI R. BHARTI SCIENCE COLLEGE,
ARNI, DIST. YAVATMAL.

DEPARTMENT OF BOTANY

2022-23

B.Sc. II (Sem IV) S-23

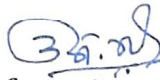


ASSIGNMENT SUBMISSION

Sr. No.	NAME OF STUDENT	SIGNATURE OF STUDENT
1.	KU. KALE SAMIKSHA SANTOSH	
2.	KU. NAGANI AQSA PARVEZ	
3.	Mr. SONTAKKE SHUBHAM NIRANJAN	
4.	Mr. ADANE SUSHIL SUNIL	
5.	KU. MASKE VEDIKA SUDHAKAR	Absent (form not fill)
6.	KU. CHAVHAN SNEHA ARVIND	_____
7.	Mr. JADHAO SHRADDHA DEVANAND	
8.	Mr. PADOLE CHETAN BHASKAR	Absent (form not fill)
9.	Mr. RATHOD ABHAY VILAS	
10.	KU. SONTAKKE SONALI ARUN	
11.	KU. PATIL DIKSHA SURESH	
12.	KU. BHOYAR VAISHNAVI DIGAMBAR	

13.	KU. PARDHI PRATIKSHA RAMESH	_____
14.	KU. SHEIKH NAMIRA MUKHTAR	Sheikh
15.	KU. JADHAV RUTIKA RAVI	Prachao
16.	KU. RATHOD SANJIVANI RAJU	Rathod
17.	KU. RATHOD ARATI KAILAS	Absent (form not fill)
18.	Mr. MARBATE ANKIT RAMESH	A.R. Marbate
19.	KU. CHAVHAN PAYAL DILIP	Pharman
20.	KU. LOHAKARE MOHINI VILAS	Lohakare
21.	KU. KHERE SNEHAL KISHOR	Admission withdrawn
22.	KU. GADDAMWAR RENU SUNIL	_____
23.	KU. POHEKAR GAURI SHAILESH	Gauri
24.	KU. AZIZ SAMINA PARVEEN SHAIKH	Samina




Professor In-charge
 Dr. U. A. More


Head
 Department of Botany
 Late R. Bhardi Arts, Comm. &
 Smt. S.R. Bhardi Sci. College, Arni

DEPARTMENT OF BOTANY



B.Sc. II (Sem III) 2022-23

SEMINAR SUBMISSION

Sr. No.	NAME OF STUDENT	TOPIC OF SEMINAR	SIGNATURE OF STUDENT
1.	KU. KALE SAMIKSHA SANTOSH	Structure and function of P.M.	
2.	KU. NAGANI AQSA PARVEZ	Mechanism of enzyme action	
3.	Mr. SONTAKKE SHUBHAM NIRANJAN	Law of Dominance	
4.	Mr. ADANE SUSHIL SUNIL	Structure and function of Vacuole	
5.	KU. MASKE VEDIKA SUDHAKAR	Mitosis	
6.	KU. CHAVHAN SNEHA ARVIND	Epistasis (Gene interaction)	
7.	Mr. JADHAO SHRADDHA DEVANAND	Structure and function of P.M.	
8.	Mr. PADOLE CHETAN BHASKAR	Chromosomal structural aberration	
9.	Mr. RATHOD ABHAY VILAS	Chloroplast DNA	
10.	KU. SONTAKKE SONALI ARUN	Complementary factor.	
11.	KU. PATIL DIKSHA SURESH	Structure and function of Mitochondria	
12.	KU. BHOYAR VAISHNAVI DIGAMBAR	Structure and function of polysaccharide	

13.	KU. PARDHI-PRATI KSHA RAMESH	Structure and function of chloroplast	write
14.	KU. SHEIKH NAMIRA MUKHTAR	Law of segregation	Neiherkh
15.	KU. JADHAV RUTIKA RAVI	Law of independent assortment	Pogidiclo
16.	KU. RATHOD SANJIVANI RAJU	Concept of cell	Rathod
17.	KU. RATHOD ARATI KAILAS	Mitochondrial DNA	Form not fill.
18.	Mr. MARBATE ANKIT RAMESH	Structure and function of Disaccharide	A.R. Marbate.
19.	KU. CHAVHAN PAYAL DILIP	Structure and function of monosaccharide	Pharban
20.	KU. LOHAKARE MOHINI VILAS	Law of incomplete dominance	Kohakare
21.	KU. KHERE SNEHAL KISHOR	Meiosis	Admission widow
22.	KU. GADDAMWAR RENU SUNIL	Chromosomal numerical aberration	— — —
23.	KU. POHEKAR GAURI SHAIKESH	Mechanism of crossing over	Gauri
24.	KU. AZIZ SAMINA PARVEEN SHAIKH	Structure and function of ribosome	Amir



35.05
Professor In-charge
Dr. U. A. More
Assistant Professor
 Department of Botany
 Late R. Bhatti Arts, Comm. &
 Smt. S.R. Bhatti Sci. College, Arni.

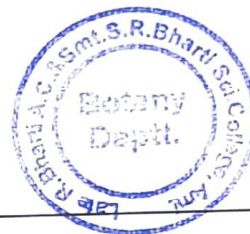
Amir
Head
 Department of Botany
 Late R. Bhatti Arts, Comm. &
 Smt. S.R. Bhatti Sci. College, Arni.

LATE RAJKAMALJI BHARTI ARTS, COMMERCE AND SMT. SUSHILABAI R. BHARTI SCIENCE COLLEGE,
ARNI, DIST. YAVATMAL.

DEPARTMENT OF BOTANY

2022-23

B.Sc. II (Sem IV) S-23



PRACTICAL RECORD SUBMISSION

Sr. No.	NAME OF STUDENT	SIGNATURE OF STUDENT
1.	KU. KALE SAMIKSHA SANTOSH	
2.	KU. NAGANI AQSA PARVEZ	
3.	Mr. SONTAKKE SHUBHAM NIRANJAN	
4.	Mr. ADANE SUSHIL SUNIL	
5.	KU. MASKE VEDIKA SUDHAKAR	Exam form not fill
6.	KU. CHAVHAN SNEHA ARVIND	—, —, —
7.	Mr. JADHAO SHRADDHA DEVANAND	
8.	Mr. PADOLE CHETAN BHASKAR	Exam form not fill
9.	Mr. RATHOD ABHAY VILAS	
10.	KU. SONTAKKE SONALI ARUN	
11.	KU. PATIL DIKSHA SURESH	
12.	KU. BHOYAR VAISHNAVI DIGAMBAR	

13.	KU. PARDHI PRATIKSHA RAMESH	_____
14.	KU. SHEIKH NAMIRA MUKHTAR	nsheikh
15.	KU. JADHAV RUTIKA RAVI	
16.	KU. RATHOD SANJIVANI RAJU	
17.	KU. RATHOD ARATI KAILAS	Exam form not fill
18.	Mr. MARBATE ANKIT RAMESH	
19.	KU. CHAVHAN PAYAL DILIP	Chavhan
20.	KU. LOHAKARE MOHINI VILAS	Lohakare
21.	KU. KHERE SNEHAL KISHOR	admission withdrawn
22.	KU. GADDAMWAR RENU SUNIL	_____
23.	KU. POHEKAR GAURI SHAILESH	
24.	KU. AZIZ SAMINA PARVEEN SHAIKH	_____



[Signature]
Head

Department of Botany
Late R. Bharti Arts, Comm. &
Smt. S. R. Bharti Sci.

[Signature]
Professor In-charge
Dr. U. A. More

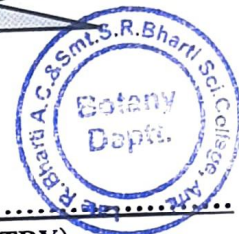
Assistant Professor
Department of Botany
Late R. Bharti Arts, Comm. &
Smt. S. R. Bharti Sci. College, Amli.

**Late Rajkamalji Bharti Arts, Commerce and Smt. Sushilabai R. Bharti
Science College, Arni. Dist-Yavatmal.**

DEPARTMENT OF BOTANY

Record of Internal Assessment of Marks Summer-2023

Class: B.Sc.-II: (Semester-IV)



(Name of Paper: **CELL BIOLOGY, GENETICS AND BIOCHEMISTRY**)

S. N.	Roll No.	Name of Students	Marks Awarded					
			Project Assignment (4)	Unit Test (10M)			Seminar / Tour (6)	Total Marks (20)
				UT1 /30	UT2 /30	Marks Obt. /10		
1	21AB 119888	Mr. RATHOD ABHAY VILAS	04	25	25	10	06	20
2	21AB 119894	Mr. MARBATE ANKIT RAMESH	04	AA	AA	--	05	09
3	21AB 119896	KU. NAGANI AQSA PARVEZ	02	08	22	07	06	15
4	21AB 119901	KU. PATIL DIKSHA SURESH	04	28	29	10	06	20
5	21AB 119903	KU. POHEKAR GAURI SHAILESH	04	AA	AA	--	05	09
6	21AB 119916	KU. LOHAKARE MOHINI VILAS	04	20	24	10	06	20
7	21AB 119917	KU. SHEIKH NAMIRA MUKHTAR	04	21	24	10	06	20
8	21AB 119926	KU. CHAVHAN PAYAL DILIP	04	22	26	10	06	20
9	21AB 119937	KU. JADHAV RUTIKA RAVI	04	AA	AA	--	05	09
10	21AB 119938	KU. KALE SAMIKSHA SANTOSH	04	19	27	10	06	20
11	21AB 119939	KU. AZIZ SAMINA PARVEEN SHAIKH	04	28	22	10	06	20
12	21AB119941	KU. RATHOD SANJIVANI RAJU	04	AA	AA	--	05	09
13	21AB 119947	Ku. JADHAO SHRADDHA DEVANAND	04	25	26	10	06	20
14	21AB 119948	Mr. SONTAKKE SHUBHAM NIRANJAN	04	26	28	10	06	20
15	21AB 119951	KU. SONTAKKE SONALI ARUN	04	25	28	10	06	20
16	21AB 119957	Mr. ADANE SUSHIL SUNIL	04	24	27	10	06	20
17	21AB 119961	KU. BHOYAR VAISHNAVI DIGAMBAR	04	30	30	10	06	20
18	21AB 119897	KU. RATHOD ARATI KAILAS	Exam form not fill					
19	21AB 119964	KU. MASKE VEDIKA SUDHAKAR	Exam form not fill					

20	KU. CHAVHAN SNEHA ARVIND	Exam form not fill
21	KU. GADDAMWAR RENU SUNIL	Admission withdrawal
22	KU. KHERE SNEHAL KISHOR	Admission withdrawal
23	Mr. PADOLE CHETAN BHASKAR	Exam form not fill



(Signature)

Professor In-charge
Dr. U. A. M. Professor
Department of Botany
Late R. Bharti Arts, Comm. &
Smt. S.R. Bharti Sci. College, Arni.

- No. of Admitted Candidate: 23
- No. of Students not fill exam form: 04
- No. of Students Admission withdrawal 02
- Total Students Appeared for exam: 17

(Signature)

Head
Department of Botany
Late R. Bharti Arts, Comm. &
Smt. S.R. Bharti Sci. College, Arni

Late Rajkamalji Bharti Arts, Commerce & Smt. Sushilabai

R. Bharti Science College, Arni

Department of Botany

Date: 20/03/2023

Student Notice

All the Students of B. Sc. II (Semester IV) are here by informed that,
Unit Test I will be held on dated **27th March 2023** at **08:30 am**.

The marks obtained in the unit test will be considered for your
internal assessment.

Attendance of all students is compulsory.

Syllabus for Unit test I – Unit 1 & 2


Dr. U. A. More
Assistant Professor
Department of Botany
Late R. Bharti Arts, Commerce &
Smt. S.R. Bharti Sci. College, Arni.




Dr. M. B. Kakpure
Head and Assistant Professor
Department of Botany
Late R. Bharti Arts, Commerce &
Smt. S.R. Bharti Sci. College, Arni.

ATE RAJKAMALJI BHARTI ARTS, COMMERCE AND SMT. SUSHILABAI R. BHARTI SCIENCE COLLEGE,
ARNI, DIST. YAVATMAL.

DEPARTMENT OF BOTANY

2022-23

B.Sc. II (Sem IV) S-23

Date: 27/03/2023

Time: 8.00 am to 9.30 am



ATTENDANCE FOR UNIT TEST I

Sr. No.	NAME OF STUDENT	SIGNATURE OF STUDENT
1.	KU. KALE SAMIKSHA SANTOSH	
2.	KU. NAGANI AQSA PARVEZ	
3.	Mr. SONTAKKE SHUBHAM NIRANJAN	
4.	Mr. ADANE SUSHIL SUNIL	
5.	KU. MASKE VEDIKA SUDHAKAR	Form not fill Absent
6.	KU. CHAVHAN SNEHA ARVIND	—, — Absent.
7.	Mr. JADHAO SHRADDHA DEVANAND	
8.	Mr. PADOLE CHETAN BHASKAR	Absent form not fill.
9.	Mr. RATHOD ABHAY VILAS	
10.	KU. SONTAKKE SONALI ARUN	
11.	KU. PATIL DIKSHA SURESH	
12.	KU. BHOYAR VAISHNAVI DIGAMBAR	

13.	KU. PARDHI PRATIKSHA RAMESH	—
14.	KU. SHEIKH NAMIRA MUKHTAR	Sheikh
15.	KU. JADHAV RUTIKA RAVI	
16.	KU. RATHOD SANJIVANI RAJU	
17.	KU. RATHOD ARATI KAILAS	
18.	Mr. MARBATE ANKIT RAMESH	
19.	KU. CHAVHAN PAYAL DILIP	Chavhan
20.	KU. LOHAKARE MOHINI VILAS	Lohakare
21.	KU. KHERE SNEHAL KISHOR	Admission withdrawn
22.	KU. GADDAMWAR RENU SUNIL	— " —
23.	KU. POHEKAR GAURI SHAILESH	
24.	KU. AZIZ SAMINA PARVEEN SHAIKH	—



Mulky
Head

Department of Botany
Late R. Bharti Arts, Comm. &
Smt. S.R. Bharti Sci. College, Arni

U. A. More

Professor In-charge
Dr. U. A. More
Assistant Professor
Department of Botany
Late R. Bharti Arts, Comm. &
Smt. S.R. Bharti Sci. College, Arni.

**Late Rajkamalji Bharti Arts, Commerce & Smt. Sushilabai
R. Bharti Science College, Arni
Department of Botany**

Date: 10/04/2023

Student Notice



All the Students of B. Sc. II (Semester IV) are here by informed that,
Unit Test II will be held on dated **17th April 2023** at **08:30 am**.

The marks obtained in the unit test will be considered for your
internal assessment.

Attendance of all students is compulsory.

Syllabus for Unit test I – Unit 3 & 4




Dr. U. A. More
Assistant Professor
Department of Botany
Late R. Bharti Arts, Comm. &
Smt. S. R. Bharti Sci. College, Arni.


Dr. M. R. Kakpure
Head and Assistant Professor
Department of Botany
Late R. Bharti Arts, Comm. &
Smt. S. R. Bharti Sci. College, Arni.

B. Sc. II, 2022-23. (S-23)

LATE RAJKAMALJI BHARTI ART, COMMERCE & SMT. SUSHILABAI R.BHARTI
SCIENCE COLLEGE, ARNI, DIST: YAVATMAL

DEPARTMENT OF BOTANY

Academic session 2022-23

UNIT TEST 1

B.Sc. II (Sem IV)

Time: 1.30 Hrs.



- 1 (A) Fill in the blanks (1 Marks each) (4M)
- i) Photosynthesis is takes place in
 - ii) Cell membrane is chemically made up of _____ and _____.
 - iii) A series of membrane enclosed channels studded with ribosomes are called as _____.
 - iv) Division of nucleus during cell division is called as _____
- (B) Choose the correct alternative (1 Marks each) (4M)
- i) DNA synthesis takes place in
a. G₁ phase b. S phase c. G₂ phase d. M phase
 - ii) Ribosome play an important role in synthesis of
a. Protein b. Lipid c. Carbohydrate d. Pyruvate
 - iii) Plant cell differ from animal cell in the absence of
a. Cell wall b. Centrioles c. Mitochondria d. Both a and b
 - iv) Two cells are connected with the help of
a. Plasmodesmata b. Plasma membrane c. Cell wall d. Plasmalogen
- (C) Answer in one sentence (1 Mark each) (4M)
- i) Define prokaryotic cell.
 - ii) Who coin the term cell?
 - iii) Which type of ribosome present in prokaryotic cell?
 - iv) What is Cytokinesis?
- 2 Write a note on (any two) (4M)
- (a) Structure of ribosome (4M)
 - (b) Comment on Metaphase (4M)
 - (c) Structure of Endoplasmic Reticulum (4M)
 - (d) Structure of Chloroplast (4M)
- 3 Solve any two (5M)
- a. Explain in detail Fluid mosaic model of plasma membrane (5M)
 - b. Structure and function of cell wall (5M)
 - c. Describe mitotic cell division and comment on its significance. (5M)
 - d. Comment on cell cycle (5M)

Duly
Head

Department of Botany
Late R. Bharti Arts, Comm. &
Smt. S.R. Bharti Sci. College, Arni

Dr. S. R. Bharti
Assistant Professor

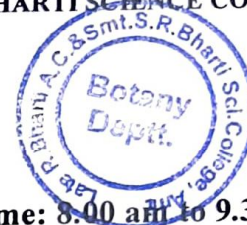
Department of Botany
Late R. Bharti Arts, Comm. &
Smt. S.R. Bharti Sci. College, Arni.

LATE RAJKAMALJI BHARTI ARTS, COMMERCE AND SMT. SUSHILABAI R. BHARTI SCIENCE COLLEGE,
ARNI, DIST. YAVATMAL.

DEPARTMENT OF BOTANY

2022-23

B.Sc. II (Sem IV) S-23



Date: 17/04/2023

Time: 8.00 am to 9.30 am

ATTENDANCE FOR UNIT TEST II

Sr. No.	NAME OF STUDENT	SIGNATURE OF STUDENT
1.	KU. KALE SAMIKSHA SANTOSH	
2.	KU. NAGANI AQSA PARVEZ	
3.	Mr. SONTAKKE SHUBHAM NIRANJAN	
4.	Mr. ADANE SUSHIL SUNIL	
5.	KU. MASKE VEDIKA SUDHAKAR	Absent (form not fill)
6.	KU. CHAVHAN SNEHA ARVIND	
7.	Mr. JADHAO SHRADDHA DEVANAND	
8.	Mr. PADOLE CHETAN BHASKAR	Absent (form not fill)
9.	Mr. RATHOD ABHAY VILAS	
10.	KU. SONTAKKE SONALI ARUN	
11.	KU. PATIL DIKSHA SURESH	
12.	KU. BHOYAR VAISHNAVI DIGAMBAR	

Late Rajkamalji Bharti Arts, Commerce & Smt. Sushilabai

R. Bharti Science College, Arni, Dist: Yavatmal, 445103.

Department of Physics

Date : 07/11/2022

Student Notice

All the Students of B. Sc. I (Semester I) are here by informed that the *MCQ test based on Skill Enhancement Module (SEM)* will be held on dated **15th November 2022 at 12:00 noon** at the department.

The marks obtained in this test will be considered for your internal assessment.

Attendance of all students is compulsory.



P. M. Wankhade

**(Dr. P. M. Wankhade)
Head Department of Physics**

Shree Dattaprasadik Shikshan Prasarak Mandal's,
Late Rajkamalji Bharti Arts, Commerce and Smt. S. R. B. Science College, Arni.
Department of Physics
B. Sc. -I (Semester – I)



Internal Test on Skill Enhancement Module

Time: - 30 Min

Date: -15th November 2022

Marks: - 10

Name of the Student: _____

Q. 1. Choose correct answer. (One marks each)

1. The least count of travelling microscope is _____
a) 0.1cm b) 0.001 cm c) 0.1 m d) 1 cm
2. For measuring the small width thickness of diameter we use _____
a) vernier calliper b) Screw gauge
c) Meter scale d) Spectrometer
3. The digital thermometer has the resolution _____ than mercury thermometer
a) same b) less c) greater d) all of these
4. Systematic error can be minimized by removing _____ error
a) instrumental b) personal c) random d) parallax
5. If mass is expressed as $m = 165.02$ gm then it has _____ figures
a) 5 b) 2 c) 3 d) 4
6. The least count of travelling microscope is expressed in _____
a) inch b) pound c) cm d) m
7. _____ is considered as positional average.
a) Mode b) Arithmetic mean c) Median d) Range
8. The error in the measurement of sides of triangle is $\frac{1}{2}\%$ then the error in the measurement of its area is _____.
a) 1 % b) $\frac{1}{2}\%$ c) 2% d) 1.5 %
9. Plane angle is measured with?
a) compass b) meter scale c) protractor d) divider
10. Most probable value of physical quantity is _____
a) Mode b) Arithmetic mean c) Median d) Range

[Signature]

MCQ Based Unit Test on SEM

Class - B.Sc. I (Semester - I)

Date - 15/11/2022



Student Attendance

Sr No	Name of student	Signature
1)	Mahini Shankar Pawar	
2)	Roshni Nasir Pathan	
3)	Divya Sahebrao Waghmare	
4)	Saba Rajjak Sheikh.	
5)	Khushi Manoj Rathod	
6)	Saniya Mustak Sheikh.	
7)	Khushi Santosh Shrivast	
8)	Kaveeri Hiranman Rathod	K. H. Rathod
9)	Nikita Prakash Rathod	N. P. Rathod
10)	Vedant Rajesh Madeshwar.	
11)	Gajanan. Maroti Suryakwad	
12)	Om. Gajanan Pardihi	O. G. Pardihi
13)	Aniket Thavary Rathod	A. Rathod
14)	Aarti Kailas chavhan	
15)	Nandini Raju Pawar	
16)	Nikita Gajanan Pawar	
17)	Ashlesha Satish Wankhade	A. Wankhade
18)	Madhuri Vinod chavhan	
19)	Romi Chavind Rathod	
20)	Nuzbah Nazuk Khan	Nuzbah
21)	Swati Pramod Deshpande	
22)	Mukesh Raju Pawar	
23)	Shubham Arjun Ade	
24)	Salochana Nazayan Madavi	E. Madavi
25)	Dharamsing Komalsing Chavhan	
26)	Satnam Dilip Deshpande	
27)	Anuraadha Ravindra Khare	
28)	Shireen Sadaf Sayyed Wakeel	
29)	Oday Mangilal Ade	
30)	Saniya Sadaf Sayyed Wakeel	

- | | | |
|-----|-------------------------------|-------------------|
| 31) | Pranav Raju Rathod | Pranav |
| 32) | Rohit Sunil Rathod | Pranav |
| 33) | Pooja Vijay Rathod | Pranav |
| 34) | Akshay Sanjay Karewar | Pranav |
| 35) | Yash Sanjay Karewar | Pranav |
| 36) | Pratik Raju Chavay | Pranav |
| 37) | S.M. Sarvagauski | Pranav |
| 38) | Valbhar R. Jadhav | Pranav |
| 39) | Amol G. Rathod | Pranav |
| 40) | Akshay Y. Rathod | Pranav |
| 41) | Abhay Prabhat Rathod | Pranav |



Pranav
(P. Nisanwar)
Internal Examiner

seen
~~but~~

Class: B.Sc Sec. _____ Subject: physics (Activity record)

A circular purple ink stamp from the University of Toronto Libraries. The text "UNIVERSITY OF TORONTO" is curved along the top inner edge, and "LIBRARIES" is curved along the bottom inner edge. In the center, the words "EX-107" and "1967" are printed vertically.

Aim: Measurement of dimension of solid block, vol^m of cylinder, diameter of thin wire.

Apparatus:

Solid block, cylinder thin wire screw gauge vernier calliper etc.

Formula:

$$V = \pi r^2 h$$

observations :-

L.C vernier value of ared calliper = $\frac{\text{division on main scale}}{\text{Total no of division vernier scale}}$

L.C of screw gauge = $\frac{\text{Value of one division on main scale}}{\text{total No of division circular scale.}}$

Observation table: Thin wire

Sr. No	MSR (cm)	C.S.R (cm)	C.S.R (cm)	diameter MSR + C.S.R	Mean cm	radius $E = d/2$ (cm)
1	0	56	0.056	0.056		
2	0	56	0.056	0.056	0.056	0.028
3	0	56	0.056	0.056		
			0.056	0.056		

procedure:-

A. Measurement of the dimension of Solid block, volume of cylindrical objects

- 1, Keep the jaws of the vernier calliper closed. Make sure that the zero of the main scale perfectly coincides with the zero of the vernier scale.
- 2, Using a magnifying glass, look for the division of the main scale that coincides with the division of the vernier scale. Note down the number of division that coincides with each other. To avoid parallax error, position your eye directly over the division mark.
- 3, Release the moveable jaw by gently loosening the screw. Slide it enough to hold the solid block or the cylindrical body between the jaws A13 without any undue pressure.

Align it perfectly perpendicular to the diameter of the body. Gently tighten the screw in order to clamp the instruction in his position to the body.

4) Note down the position of the zero of the vernier scale against the zero of the main scale. Normally it will not perfectly coincide with any of the divisions on the main scale. Record the main scale division to the left of the zero marks of the vernier scale.

5) Look for the exact coincidence of the vernier scale division with that of the main scale division in the vernier window from the left and to the right to the Note down the number N .

6) Multiply the obtained N by the least count of the instruction and add the product to the main scale reading noted in step 4. Make sure also convert the product into proper units for valid calculation.

- 7, Repeat steps 3-6 to get the positions of the body at different positions and at different dimension (Length, breadth, width, height, radius) on its surface. Make sure to take valid addition.
- 8, Record the observation in a tabular column provided with proper reading.
- 9, Find the arithmetical mean of the corrected reading of the body.
- 10, Calculation of the volume of cylinder using given formula.

B] Measurement of thickness of thin uniform wire.

- 1] Find the value of one linear scale division (L.S.D).
- 2] Determine and record the pitch and least count of the screw gauge.
- 3] Move Face B away from Face A using a ratchet head R, where move the Face A towards Face B length wise and stop when R turns without moving the screw.
- 4] Linear scale reading (L.S.R) is recorded division of linear scale.
- 5] Let n be the no. of division of the circular scale lying on the reference line

6] To measure diameter in a perpendicular direction repeat step 4 & 5 by rotating the wire to 90°

7] For the entire length of wire repeat step 4, 5, 6 and 7 for five different position & record observations.

Calculation :-

$$V = \pi r^2 h$$

$$= 3.14 \times (1.16)^2 = 3.42$$

$$= 14.450$$

* Measurement of dimension of solid block on Vernier calliper

Length	No. of Sr.	M.S.R	V.S.D	V.S.R (L.C.K x VSD)	T.R	mean TR
	1	4.6	4	0.04	4.64	
	2	4.6	4	0.04	4.64	4.64
	3	4.6	4	0.04	4.64	

breadth	Sr. No	M.S.R	V.S.D	V.S.R	T.R	Mean TR
	1	3.5	4	0.04	3.54	
	2	3.5	4	0.04	3.54	3.54
	3	3.5	4	0.04	3.54	

Measurement of dimension of solid block on screw gauge.

Thickness	Sr. No	M.S.R	V.S.D	V.S.R	T.R	Mean TR
	1	1.3	2	0.02	1.32	
	2	1.3	2	0.02	1.32	1.32
	3	1.3	2	0.02	1.32	

* Measurement of volume of Cylinder on Vernier calliper.

	Sr. No	M.S.R	V.S.D	V.S.R	T.R	Mean T.R
height	1	3.4	2	0.02	3.42	
	2	3.4	2	0.02	3.42	3.42
	3	3.4	2	0.02	3.42	

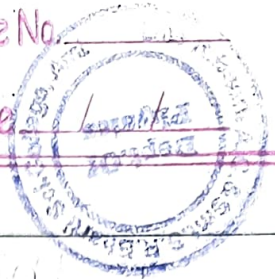
	Sr. No	M.S.R	V.S.D	V.S.R	T.R	Mean T.R
diameter	1	2.3	2	0.02	2.32	
	2	2.3	2	0.02	2.32	2.32
	3	2.3	2	0.02	2.32	

Calculation :-

$$V = \pi r^2 h$$

$$= 3.14 \times (1.16)^2 \times 3.42$$

$$= 14.450$$



Result:-

1. The length, breadth, and width of the solid block is found to be 4.64 cm, 3.54 cm, 1.32 respectively.
2. The radius and height of the cylinder is found to be 3.42 cm and hence the volume of cylinder is 14.50 cm³.
3. The diameter of the thin uniform wire is found to be 0.056 cm.

Precautions:-

1. Apply machine oil or grease to make the vernier scale slide smoothly.
2. Do not exert more pressure on the vernier screw to avoid damage to objectives.

4. the significant figures and Units used in observations must be correct.
- 5) There might be friction in the screw.
- 6) There might be a back-lash error in the screw gauge.
- 7) Circular scale divisions may not be equally divided.
- 8) There might not be uniform in the wire.

(Extra-Ordinary)

NOTIFICATION

No. : 183 / 2022

Date: 07/11/2022

Subject : Instructions to the Paper Setters

It is notified for general information of all concerned that the Choice Based Credit System has been implemented from the Academic Session 2022-2023. The Scheme of Teaching, Learning, Examination & Evaluation, syllabi and concerned Direction has already been published on Website, similarly, the instructions to the Paper Setters approved by Hon'ble Vice – Chancellor as recommended by the Associate Dean and Deans of the respective Faculties are as follows :-

Instructions to the Paper Setter :

1. The duration of University theory examination shall be of **Three hours** or appropriate hours as prescribed in the syllabus/curriculum of the pertinent course
2. The Question Paper shall consist of MCQ objective type, Short Answer type and Long Answer type questions.
3. Examiner shall set Long answer type Questions and Short Answer type Questions as specified in the following Tables (Table 1 to Table 6) or as applicable as per the curriculum.
4. There shall be internal choice for Short-Answer type Question as well as Long Answer type Question for every Unit.
5. The Question paper should be set based on the Course Outcomes (COs) defined in the curriculum and please ensure that all the outcomes are addressed through appropriate questions. Please read and study the Course Outcomes of a paper/subject/course very carefully.
6. The Questions should help to measure attainment of their corresponding Course Outcomes as prescribed in the syllabus/curriculum. All questions must be mapped to their related Course Outcomes.
7. Questions paper should try to address the different levels of learning (Bloom's Taxonomy) i.e. Knowledge / Remembering, Understanding, Applying, Analyzing, Evaluating and Creating
8. The nature of Q. No.1 shall be of objective type : MCQs and / or fill in the blanks and / or very short answer type question.

All questions in Q. No. 1 are compulsory.

9. All Units mentioned in the course should be covered with equal weightage. The question paper shall be set so as to cover the entire syllabus of the respective course (paper).

NOTE: No questions shall be set on SEM (Skill Enhancement Module) contained in a paper/subject/course

11. Model Solutions/answers to the objective type question, short answer type questions, long answer type questions and scheme of marking for all question shall be submitted along with the question paper in a separate envelope.

12. Please ensure that the total marks for a course/subject/paper amounts to the prescribed total as notified in the scheme/curriculum. The total number of marks available for each question and each part of a question should be shown in the mark scheme and must tally with the marks shown on the question paper.

13. Avoid Questions like "Write short notes on ..."

14. The question paper should be precise and should be designed such that the questions:

- are unambiguous
- are asked for appropriate marks
- The questions should be serially numbered as 01, 02, 03, 04 & 05 etc.
- Sub-questions, if any, shall be numbered as a, b, c, d ... or i, ii, iii....etc.
- It must be ensured that all questions are from within the prescribed syllabus
- The paper setters should specify whether any Charts, Graphs, Tables, Codes, Books etc. are to be provided to the students. The use of which shall be permitted during the actual conduct of the examination.

15. For Short-Answer type Questions, ensure that:

- the item calls for a single, brief answer
- the item has been written as a direct question or a well-stated incomplete sentence
- the desired response is related to the main point of the item
- clues to the answer have been avoided (e.g. "a" or "an", length of the blank)
- the units and degree of precision is indicated for numerical answers.

16. For Long Answer type questions, make sure that:

questions starting questions with "who", "what", "when", "where", "name", "list" are avoided as these terms limit the response

questions demanding higher order skills, such as those indicated in the following Table are used

Outcome	Sample Terms
Comparing	Compare, classify, describe, distinguish between, explain, outline, summarize, etc.
Interpreting	Convert, draw, estimate, illustrate, interpret, restate, summarize, translate, etc.
Inferring	Derive, draw, estimate, extend, extrapolate, predict, propose, relate, etc.

17. The questions should be based on Bloom's Taxonomy levels of (a) Remembering (b) Understanding (c) Application (d) Analysis (e) evaluation and (f) Synthesis as shown below

(a) Remember:

Skill Demonstrated	Sample Question Ques / Verbs for tests
Ability to recall of information like, facts, conventions, definitions, jargon, technical terms, classifications, categories, and criteria ability to recall methodology and procedures, abstractions, principles and theories in the field Knowledge of dates, events, places, etc. Mastery of subject matter	List, define, describe, state, recite, recall, identify, show, label, tabulate, quote, name, who, when where, etc.

(b) Understand:

Skill Demonstrated	Sample Question Ques / Verbs for test
Understanding information grasp meaning translate knowledge into new context interpret facts, compare, contrast order, group, infer causes predict consequences	Describe, explain, paraphrase, restate, associate, contrast, summarize, differentiate interpret, discuss, etc.

(c) Apply:

Skill Demonstrated	Sample Question Ques / Verbs for test
Use information use methods, concepts, laws, theories in new situations solve problems using required skills of knowledge Demonstrating correct usage of method or procedure	Calculate, predict, apply, solve, illustrate, use, demonstrate, determine, model, experiment, show, examine, modify, etc.

(d) Analysis:

Skill Demonstrated	Sample Question Ques / Verbs for test
break down a complex problem into parts. Identify the relationships and interaction between the different parts of complex problem.	Classify, outline, break down, categorize, analyse, diagram, illustrate, infer, select, etc.

(e) Evaluation (Judging) Analysis:

Skill Demonstrated	Sample Question Ques / Verbs for test
Evaluation questions encourage students to develop opinions and make value decisions about issues based on specific criteria	Assess, Critique, Determine, Evaluate, Judge, Justify, Measure & Recommend, etc. <i>Examples of questions:</i> "How could you select...?" "How could you prove...?" "How would you prioritize...?" "What information would you use to support...?"

(f) Synthesis (Creating):

Skill Demonstrated	Sample Question Ques / Verbs for test
These questions encourage students create something new by using a combination of ideas from different sources to form a new whole	Arrange, Combine, Create, Design, Develop Formulate, Integrate & Organize, etc. <i>Examples of questions:</i> "What could be changed to improve...?" "How would you test...?" "What way would you design...?" "What outcome would you predict for...?"

Table 1. Faculty: Commerce & Management PG (Except MBA)

Table 2. Faculty: Science Stream (Science & Technology), Commerce & Management (except MBA) [UG and M. Sc.], Inter Disciplinary Studies and Humanities (Languages)

Total marks of Theory Paper	MCQ of 1 Mark each equally based on all Units	Marks for Long Short Answer +	Distribution of Unit wise Long/Short Answer type Questions If Total no. of Units (other than SEM) are		
			04 Units	05 Units	06 Units
80	20	60	*Long Answer: 10 Marks *Short Answer: 5 Marks	*Long Answer: 8 Marks *Short Answer: 4 Marks	*Long Answer: 7 Marks *Short Answer: 3 Marks
75	15	60	*Long Answer: 10 Marks *Short Answer: 5 Marks	*Long Answer: 8 Marks *Short Answer: 4 Marks	*Long Answer: 7 Marks *Short Answer: 3 Marks
70	10	60	*Long Answer: 10 Marks *Short Answer: 5 Marks	*Long Answer: 8 Marks *Short Answer: 4 Marks	*Long Answer: 7 Marks *Short Answer: 3 Marks
40	10	30	For Any Three Units: *Long Answer: 5 Marks *Short Answer: 2 Marks And For the remaining Fourth Unit * Long Answer: 6 Marks *Short Answer: 3 Marks	*Long Answer: 4 Marks *Short Answer: 2 Marks	*Long Answer: 3 Marks *Short Answer: 2 Marks

*** Solve any One Question out of Two Questions**

Note: In case of the exceptional situation not clarified in this document, with respect to the Course having an unequal distribution of marks on MCQ, the remaining distribution of marks can be adjusted on any one unit of the said Course.

Table 3. Faculty: Humanities (Social Science Group: Except Languages and Geography)

Total marks of Theory Paper	MCQ of 1 Mark each equally based on all Units	Marks for Long + Short Answer	Distribution of Unit wise Long/Short Answer type Questions If Total no. of Units (other than SEM) are
			05 Units
80	20	60	Long Answer Two Questions of each 12 Marks based on any Two Units Short Answer: Four Questions of each 03 Marks based on other Three Units (other than for which Long Answer type Questions are asked) $12 \times 2 = 24$ $(4 \times 3) \times 3 = 36$ Total= 60
75	15	60	Same As Above
70	10	60	Same As Above

Table 4. Faculty: Humanities (Geography)

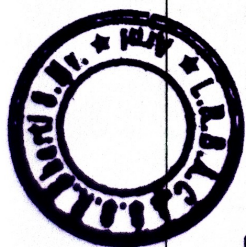
Total marks of Theory Paper	MCQ of 1 Mark each equally based on all Units	Marks for Long + Short Answer	Distribution of Unit wise Long/Short Answer type Questions If Total no. of Units (other than SEM) are
60	20	40	05 Units Long Answer Two Questions of each 8 Marks based on any Two Units Short Answer: Four Questions of each 02 Marks based on other Three Units (other than for which Long Answer type Questions are asked) $08 \times 2 = 16$ $(4 \times 2) \times 3 = 24$ Total = 40

Table 5. Faculty: Humanities (Music) UG

Total marks of Theory Paper	MCQ of 1 Mark each equally based on all Units	Marks for Long + Short Answer	Distribution of Unit wise Long/Short Answer type Questions If Total no. of Units (other than SEM) are
50	10	40	05 Units Long Answer Two Questions of each 08 Marks based on any Two Units Short Answer: Four Questions of each 02 (Solve any Four Questions out of Six Questions) Marks based on other Three Units (other than for which Long Answer type Questions are asked) $08 \times 2 = 16$ $(4 \times 2) \times 3 = 24$ Total = 60

Table 6. Faculty: Humanities (Music) PG

Total marks of Theory Paper	MCQ of 1 Mark each equally based on all Units	Marks for Long + Short Answer	Distribution of Unit wise Long/Short Answer type Questions If Total no. of Units (other than SEM) are
80	20	60	05 Units Long Answer Two Questions of each 12 Marks based on any Two Units Short Answer: Three Questions of each 04 (Solve any Three Questions out of FIVE Questions) Marks based on other Three Units (other than for which Long Answer type Questions are asked) $12 \times 2 = 24$ $(4 \times 3) \times 3 = 36$ Total = 60



(Signature)
Principal
Late R. Bhatt Arts. Com. &
Smt. S. R. Bhatt Sci. College
Yavatma, Dist. Yavatma

**LATE RAJKAMALJI BHARTI ARTS, COMMERCE AND
SMT. SUSHILABAI R. BHARTI SCIENCE COLLEGE,
ARNI, DIST-YAVATMAL**



Examination Committee Report

2022-2023



Shri Datta Prasadik Shikshan Prasarak Mandal's,
L. Rajkamalji Bharti Arts, Commerce and Smt. Sushilabai R
Bharti Science College Arni, Dist-Yavatmal

EXAMINATION COMMITTEE /
INTERNAL EXAMINATION GRIEVANCE COMMITTEE

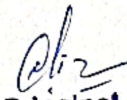


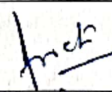
Academic Year 2022-23

NOTICE

All the members of Examination Committee / Internal Examination Grievance Committee are hereby Informed that the meeting of related to examination and grievances will be held on 17/07/2022 at 11A.M.in the Department of Zoology. All members of committee are request to attend the meeting.

Date :13/07/2022


Principal
Principal Com. &
Smt. S. R. Bharti Sci. College
Arni, Dist. Yavatmal

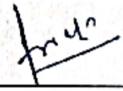
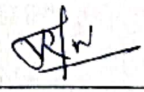
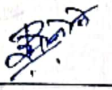
Name of Committee Member	Signature
1.Dr. Prashant J. Awate	
2.Mr. V. R. Tokase	
3.Mr. P.N. Sonone	

AGENDA OF MEETING

- 1.To read and confirm the minutes of previous meeting.
- 2.To discuss new CBCS pattern syllabus based examination.
- 3.Any other issue with permission of chairman.

Minutes of the Meeting

- The meeting of Examination Committee/Internal Examination Grievance Committee for the 2022-23 was held on 08/09/2021 at department of Zoology.
- Meeting was chaired by Hon. Dr. N.A. Pistulkar , Principal, and Coordinator Dr. P. J. Awate welcomed all members.
- Following issues was discussed in the meeting.
- To read and Confirm Minutes of previous meeting.
- New CBCS pattern syllabus based examination was discussed.
- Following members were present for the meeting

Name of Committee Member	Signature
1.Dr. Prashant J. Awate	
2.Mr. V. R. Tokase	
3.Mr. P.N. Sonone	

Action Taken Report

- The minutes of the previous meeting has been read and confirmed.
- Question Papers was checked by the subject teacher after printing.



Shri Datta Prasadik Shikshan Prasarak Mandal's,
L. Rajkamalji Bharti Arts, Commerce and Smt. Sushilabai R.
Bharti Science College Arni, Dist-Yavatmal

**Examination Committee / Internal Examination Grievance
Committee
Academic Year 2022-23**



NOTICE

The following Members are here by informed that they are appointed as Member of Supervision Committee for Internal Examination for the Academic year 2022-23 to supervise the internal examinations of BA /B.Sc. /B. Com during the internal examination schedule.

The Committee members should remain present at given time and supervise the examination.

Sr. No.	Name of Committee Member	Signature
1	Mr. U.D. Chavan (Commerce Dept)	
2	Mr. S.N. Bole (Arts Dept)	
3	Dr. M.R. Kakpure (Science Dept)	

Principal
Late P. Bharti Arts, Com. &
Smt. S.R. Bharti Sci. College
Arni, Dist. Yavatmal



Shri Datta Prasadik Shikshan Prasarak Mandal's,

L. Rajkamalji Bharti Arts, Commerce and Smt. Sushilabai R.
Bharti Science College Arni, Dist-Yavatmal.

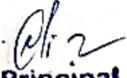
**Examination Committee / Internal Examination Grievance
Committee**

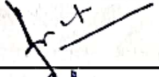
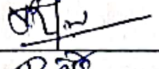
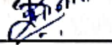
Academic Year 2022-23

NOTICE

All the members of Examination Committee/ Internal Examination Grievance Committee are hereby Informed that the meeting of related to examination and grievances will be held on 08/11/2022 at 10A.M.in the Department of Zoology. All members of committee are request to attend the meeting.

Date-05/11/2022


Principal
Late R. Bharti Arts, Com. &
Smt. S. R. Bharti Sci. College,
Arni, Dist. Yavatmal

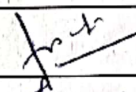
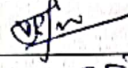
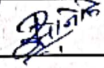
Name of Committee Member	Signature
1.Dr. Prashant J. Awate	
2.Mr. V. R. Tokase	
3.Dr. P.N. Sonone	

AGENDA OF MEETING

- 1.To read and confirm the minutes of previous meeting
2. To discuss about the assessment procedure and display of marks
3. Discussion on Procedure of grievances
4. Any other issue with permission of chairman

MINUTES OF THE MEETING

- The meeting of Examination Committee/Internal Examination Grievance Committee for the 2022-23 was held on 08/11/2022 at Department of Zoology.
- Meeting was chaired by Hon. Dr. N. A. Pistulkar, Principal Coordinator Dr. P. J. Awate welcomed all members. Following issues was discussed in the meeting.
- To read and Confirm Minutes of previous meeting.
- Assessment and marks display procedure was discussed
- Discussion on procedure of grievances,
- Following members were present for the meeting

Name of Committee Member	Signature
1.Dr. Prashant J. Awate	
2.Mr. V. R. Tokase	
3.Dr. P.N. Sonone	

ACTION TAKEN REPORT

- The minutes of the previous meeting has been read and confirmed
- Assessment and display of marks was applied as per norms.
- No grievances was received about the examination.

Shri Datta Prasadik Shikshan Prasarak Mandal's,

**L. Rajkamalji Bharti Arts, Commerce and Smt. Sushilabai R.
Bharti Science College Arni, Dist-Yavatmal**

**Examination Committee / Internal Examination
Grievance Committee
Academic Year 2022-23
ANNUAL REPORT**

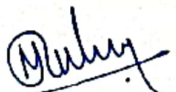


In the academic session 2022-23, the same examination committee is continued as per last academic Session. The member of committee is

- 1) Dr. P. J. Awate (Convener)
- 2) Mr. V. R. Tokase (Member)
- 3) Mr. P. N. Sonone (Member)

Annual planning of the examinations to be taken is done. The two-unit test is conducted in the first half session out of which first is held in second week of August and second unit test is conducted in second week of September.

And the two unit is conducted in second half out of which first unit test was conducted in middle of January and second in last week of February. Both the unit tests were conducted at departmental level for the students.


IQAC Co-ordinator
Late R. Bharti Arts. Com &
Smt S. R. Bharti Sci. College
Arni, Dist - Yavatmal


Principal
Late R. Bharti Arts. Com. &
Smt. S. R. Bharti Sci. College
Arni, Dist. Yavatmal

**LATE RAJKAMALJI BHARTI ARTS, COMMERCE AND
SMT. SUSHILABAI R. BHARTI SCIENCE COLLEGE,
ARNI, DIST-YAVATMAL**



Examination Committee Report

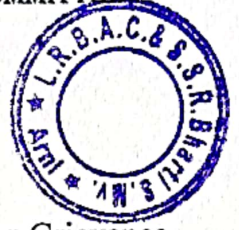
2021-2022



Shri Datta Prasadik Shikshan Prasarak Mandal's,
L. Rajkamalji Bharti Arts, Commerce and Smt. Sushilabai R.
Bharti Science College Arni, Dist-Yavatmal

EXAMINATION COMMITTEE / INTERNAL EXAMINATION GRIEVANCE COMMITTEE

ACADEMIC YEAR 2021-22
NOTICE



All the members of Examination Committee / Internal Examination Grievance Committee are hereby Informed that the meeting of related to examination and grievances will be held on 8/09/2021 at 11A.M.in the Department of Zoology. All members of committee are request to attend the meeting.

Date :30/08/2021

Rajeev
Principal
L.R.B.A.C. & S.R.Bharti S.M.V.
Arni, Dist. Yavatmal

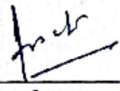
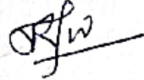
Name of Committee Member	Signature
1.Dr. Prashant J. Awate	<i>[Signature]</i>
2.Mr. V. R. Tokase	<i>[Signature]</i>
3.Mr. P.N. Sonone	<i>[Signature]</i>

AGENDA OF MEETING

- 1.To read and confirm the minutes of previous meeting.
- 2.To discuss about the printing mistakes in the question papers.
- 3.Any other issue with permission of chairman.

Minutes of the Meeting

- The meeting of Examination Committee/Internal Examination Grievance Committee for the 2021-22 was held on 08/09/2021 at department of Zoology.
- Meeting was chaired by Hon. Dr. R.M. Tated, Principal, Coordinator Dr. P. J. Awate welcomed all members.
- Following issues was discussed in the meeting.
- To read and Confirm Minutes of previous meeting.
- Printing mistakes in the question papers was discussed
- Following members were present for the meeting

Name of Committee Member	Signature
1.Dr. Prashant J. Awate	
2.Dr. V. R. Tokase	
3.Mr. P.N. Sonone	

Action Taken Report

- The minutes of the previous meeting has been read and confirmed.
- Question Papers was checked by the subject teacher after printing.



Shri Datta Prasadik Shikshan Prasarak Mandal's,

L. Raikamajji Bharti Arts, Commerce and Smt. Sushilabai R.
Bharti Science College Arni, Dist-Yavatmal

**Examination Committee / Internal Examination Grievance
Committee**

Academic Year 2021-22



NOTICE

The following Members are here by informed that they are appointed as Member of Supervision Committee for Internal Examination for the Academic year 2021-22 to supervise the internal examinations of BA /B.Sc. /B. Com during the internal examination schedule.

The Committee members should remain present at given time and supervise the examination.

Sr. No.	Name of Committee Member	Signature
1	Mr. U.D. Chavan (Commerce Dept)	
2	Mr. S.N. Bole (Arts Dept)	
3	Dr. M.R. Kakpure (Science Dept)	

Principal
Late R. Bharti Arts. Com. &
Smt. S.R. Bharti Sci. College
Arni, Dist. Yavatmal



Shri Datta Prasadik Shikshan Prasarak Mandal's,
L. Rajkamalji Bharti Arts, Commerce and Smt. Sushilabai R.
Bharti Science College Arni, Dist-Yavatmal

**Examination Committee / Internal Examination Grievance
Committee**

Academic Year 2021-22

NOTICE

All the members of Examination Committee/ Internal Examination Grievance Committee are hereby Informed that the meeting of related to examination and grievances will be held on 09/11/2021 at 10A.M.in the Department of Zoology. All members of committee are request to attend the meeting.

Date-04/11/2021

Rated

Principal

ate R. Bharti Arts, Com. &
Smt. S. R. Bharti Science College
Arni, Dist. Yavatmal

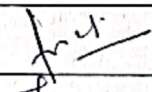
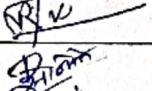
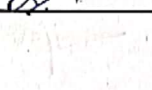
Name of Committee Member	Signature
1.Dr. Prashant J. Awate	<i>[Signature]</i>
2.Dr. V. R. Tokase	<i>[Signature]</i>
3.Dr. P.N. Sonone	<i>[Signature]</i>

AGENDA OF MEETING

- 1.To read and confirm the minutes of previous meeting
2. To discuss about the assessment procedure and display of marks
3. Discussion on Procedure of grievances
4. Any other issue with permission of chairman

MINUTES OF THE MEETING

- The meeting of Examination Committee/Internal Examination Grievance Committee for the 2021-22 was held on 09/11/2021 at Department of Zoology.
- Meeting was chaired by Hon. Dr. R. M. Tated, Principal Coordinator Dr. P. J. Awate welcomed all members. Following issues was discussed in the meeting.
- To read and Confirm Minutes of previous meeting.
- Assessment and marks display procedure was discussed
- Discussion on procedure of grievances,
- Following members were present for the meeting

Name of Committee Member	Signature
1.Dr. Prashant J. Awate	
2.Mr. V. R. Tokase	
3.Dr. P.N. Sonone	

ACTION TAKEN REPORT

- The minutes of the previous meeting has been read and confirmed
- Assessment and display of marks was applied as per norms.
- No grievances was received about the examination.

Shri Datta Prasadik Shikshan Prasarak Mandal's,

**L. Ralkamalji Bharti Arts, Commerce and Smt. Sushilabai R.
Bharti Science College Amli, Dist-Yavatmal**

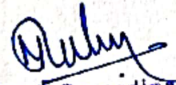
**Examination Committee / Internal Examination
Grievance Committee
Academic Year 2021-22
ANNUAL REPORT**



In the academic session 2021-22, the same examination committee is continued as per last academic Session. The member of committee is

- 1) Dr. P. J. Awate (Convener)
- 2) Mr. V. R. Tokase (Member)
- 3) Mr. P. N. Sonone (Member)

Annual planning of the examinations to be taken is done. The two unit test is conducted in the first half session out of which first is held in second week of August and second unit test is conducted in second week of September. And the two unit is conducted in second half out of which first unit test was conducted in middle of January and second in last week of February. Both the unit tests was conducted at departmental level for the students.


IQAC Co-ordinator
Late R. Bharti Arts. Com &
Smt S. R. Bharti Sci. College
Amli, Dist. - Yavatmal


Principal
Late R. Bharti Arts. Com. &
Smt. S. R. Bharti Sci. College
Amli, Dist. Yavatmal

**LATE RAJKAMALJI BHARTI ARTS, COMMERCE AND
SMT. SUSHILABAI R. BHARTI SCIENCE COLLEGE,
ARNI, DIST-YAVATMAL**



Examination Committee Report

2020-2021



Shri Datta Prasadik Shikshan Prasarak Mandal's,
L. Rajkamalji Bharti Arts, Commerce and Smt. Sushilabai R.
Bharti Science College Arni, Dist-Yavatmal

**Examination Committee / Internal Examination Grievance
Committee**
Academic Year 2020-21



NOTICE

All the members of Examination Committee / Internal Examination Grievance Committee are hereby Informed that the meeting of related to examination and grievances will be held on 02/11/2020 at 11A.M. on line mode due to covid-19 pandemic. All members of committee are request to attend the on-line meeting.

Date :30/10/2020

Rajeev
Principal
Late R. Bharti Arts, Com. &
Smt. S.R. Bharti Sci. College
Arni, Dist. Yavatmal

Name of Committee Member	Signature
1.Dr. Prashant J. Awate	On line present
2.Mr. V. R. Tokase	On line present
3.Mr. P.N. Sonone	On line present

AGENDA OF MEETING

- 1.To read and confirm the minutes of previous meeting.
- 2.To discuss about the on-line examination.
- 3.Any other issue with permission of chairman.

Minutes of the Meeting

- The meeting of Examination Committee/Internal Examination Grievance Committee for the 2020-20 was held on 02/11/2020 on line mode
- Meeting was chaired by Hon. Dr. R.M. Tated, Principal, Coordinator Dr. P. J. Awate welcomed all members.
- Following issues was discussed in the meeting.
- To read and Confirm Minutes of previous meeting.
- Unit test should be taken as per the guidelines given by university time to time.
- Following members were present on line for the meeting

Name of Committee Member	Signature
1.Dr. Prashant J. Awate	On line present
2.Dr. V. R. Tokase	On line present
3.Mr. P.N. Sonone	On line present

Action Taken Report

- The minutes of the previous meeting has been read and confirmed.
- Due to covid-19 pandemic, as per the guidelines of university unit test will be conducted.



Shri Datta Prasadik Shikshan Prasarak Mandal's,

L. Rajkamalji Bharti Arts, Commerce and Smt. Sushilabai R.
Bharti Science College Arni, Dist-Yavatmal

**Examination Committee / Internal Examination Grievance
Committee
Academic Year 2020-21**



NOTICE

All the members of Examination Committee/ Internal Examination Grievance Committee are hereby Informed that the meeting of related to examination and grievances will be held on 12/12/2020 at 10A.M. on line mode. All members of committee are request to attend the meeting.

Date-05/12/2020

Ratev

Principal

Late R. Bharti Arts. Com. &
Smt. S.R. Bharti Sci. College
Arni, Dist. Yavatmal

Name of Committee Member	Signature
1.Dr. Prashant J. Awate	Online Present
2.Mr. V. R. Tokase	
3.Mr. P.N. Sonone	

AGENDA OF MEETING

- 1.To read and confirm the minutes of previous meeting
2. To discuss about the assessment procedure in covid-19 as per the direction by university.
3. Discussion on Procedure of grievances
4. Any other issue with permission of chairman

MINUTES OF THE MEETING

- The meeting of Examination Committee/Internal Examination Grievance Committee for the 2020-21 was held on 12/12/2020 on line mode.
- Meeting was chaired by Hon. Dr. R. M. Tated, Principal, and Coordinator Dr. P. J. Awate welcomed all members. Following issues was discussed in the meeting.
- To read and Confirm Minutes of previous meeting.
- As the covid-19 pandemic is in very active stage assessment and marks display procedure will be online.
- Discussion on procedure of grievances,
- Following members were present for the meeting

Name of Committee Member	Signature
1.Dr. Prashant J. Awate	Online Mode
2.Mr. V. R. Tokase	
3.Mr. P.M. Wankhade	

ACTION TAKEN REPORT

- The minutes of the previous meeting has been read and confirmed
- Assessment and display of marks was applied as per directed by University.
- No grievances were received about the examination.

Shri Datta Prasadik Shikshan Prasarak Mandal's,

**L. Rajkamalji Bharti Arts, Commerce and Smt. Sushilabai R.
Bharti Science College Arni, Dist-Yavatmal**

**Examination Committee / Internal Examination
Grievance Committee
Academic Year 2020-21
ANNUAL REPORT**

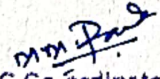


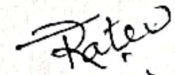
In the academic session 2020-21, one change in examination committee is done by authority. Dr. P. M. Wankhade member of examination committee replaced by Mr. P.N. Sonone.

The member of committee is:

- 1) Dr. P. J. Awate (Convener)
- 2) Mr. V. R. Tokase (Member)
- 3) Mr. P. N. Sonone (Member)

Annual planning of the examinations to be taken is not worked in practiced. Due to Covid-19 pandemic. Internal assessment is not conducted by committee. Every department took unit test as per the direction given by university and online record were submitted on portal to university.


IQAC Co-ordinator
Late R. Bharti Arts. Com &
Smt S.R. Bharti Sci. College
Arni, Dist.-Yavatmal


Principal
Late R. Bharti Arts. Com. &
Smt. S.R. Bharti Sci. College
Arni, Dist. Yavatmal

**LATE RAJKAMALJI BHARTI ARTS, COMMERCE AND
SMT. SUSHILABAI R. BHARTI SCIENCE COLLEGE,
ARNI, DIST-YAVATMAL**



Examination Committee Report
2019-2020



Shri Datta Prasadik Shikshan Prasarak Mandal's,

L. Rajkamalji Bharti Arts, Commerce and Smt. Sushilabai R.
Bharti Science College Arni, Dist-Yavatmal

**Examination Committee / Internal Examination Grievance
Committee**

Academic Year 2019-20

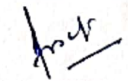
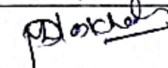


NOTICE

All the members of Examination Committee / Internal Examination Grievance Committee are hereby Informed that the meeting of related to examination and grievances will be held on 12/08/2019 at 11A.M.in the Department of Zoology. All members of committee are request to attend the meeting.

Date :07/08/2019


Principal
Late Rajkamalji Bharti Arts, Com. &
Smt. S.R. Bharti Sci. College
Arni, Dist. Yavatmal

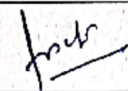
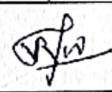
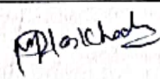
Name of Committee Member	Signature
1.Dr. Prashant J. Awate	
2.Mr. V. R. Tokase	
3.Dr. P.M. Wankhade	

AGENDA OF MEETING

- 1.To read and confirm the minutes of previous meeting.
- 2.To discuss about the printing mistakes in the question papers.
- 3.Any other issue with permission of chairman.

Minutes of the Meeting

- The meeting of Examination Committee/Internal Examination Grievance Committee for the 2019-20 was held on 12/08/2019 at department of Zoology.
- Meeting was chaired by Hon. Mr. G.M. Agarwal, Principal, Coordinator Dr. P. J. Awate welcomed all members.
- Following issues was discussed in the meeting.
- To read and Confirm Minutes of previous meeting.
- Printing mistakes in the question papers was discussed
- Following members were present for the meeting

Name of Committee Member	Signature
1.Dr. Prashant J. Awate	
2.Dr. V. R. Tokase	
3.Dr. P.M. Wankhade	

Action Taken Report

- The minutes of the previous meeting has been read and confirmed.
- Question Papers was checked by the subject teacher after printing.



Shri Datta Prasadik Shikshan Prasarak Mandal's,

L. Rajkamalji Bharti Arts, Commerce and Smt. Sushilabai R.
Bharti Science College Arni, Dist-Yavatmal

**Examination Committee / Internal Examination Grievance
Committee**

Academic Year 2019-20



NOTICE

The following Members are here by informed that they are appointed as Member of Supervision Committee for Internal Examination for the Academic year 2019-20 to supervise the internal examinations of BA /B.Sc. /B. Com during the internal examination schedule.

The Committee members should remain present at given time and supervise the examination.

Sr. No.	Name of Committee Member	Signature
1	Mr. U.D.Chavan (Commerce Dept)	
2	Mr. S.N. Bole (Arts Dept)	
3	Dr. M.R. Kakpure (Science Dept)	

Principal
Late R. Rajkamalji Bharti Arts, Commerce &
Smt. S.R. Bharti Sci. College
Arni, Dist. Yavatmal



Shri Datta Prasadik Shikshan Prasarak Mandal's,

L. Rajkamalji Bharti Arts, Commerce and Smt. Sushilabai R.
Bharti Science College Arni, Dist-Yavatmal

**Examination Committee / Internal Examination Grievance
Committee**

Academic Year 2019-20

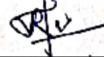
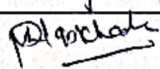
NOTICE



All the members of Examination Committee/ Internal Examination Grievance Committee are hereby Informed that the meeting of related to examination and grievances will be held on 08/10/2019 at 10A.M.in the Department of Zoology. All members of committee are request to attend the meeting.

Date-05/10/2019


Principal
ate R. Bharti Arts, Com. &
Smt. S. R. Bharti Sci. College
arni, Dist. Yavatmal

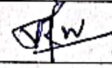
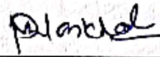
Name of Committee Member	Signature
1.Dr. Prashant J. Awate	
2.Mr. V. R. Tokase	
3.Dr. P.M. Wankhade	

AGENDA OF MEETING

- 1.To read and confirm the minutes of previous meeting
2. To discuss about the assessment procedure and display of marks
3. Discussion on Procedure of grievances
4. Any other issue with permission of chairman

MINUTES OF THE MEETING

- The meeting of Examination Committee/Internal Examination Grievance Committee for the 2019-20 was held on 08/10/2019 at Department of Zoology.
- Meeting was chaired by Hon. Mr. G. M. Agrawal, Principal Coordinator Dr. P. J. Awate welcomed all members. Following issues was discussed in the meeting.
- To read and Confirm Minutes of previous meeting.
- Assessment and marks display procedure was discussed
- Discussion on procedure of grievances,
- Following members were present for the meeting

Name of Committee Member	Signature
1.Dr. Prashant J. Awate	
2.Mr. V. R. Tokase	
3.Dr. P.M. Wankhade	

ACTION TAKEN REPORT

- The minutes of the previous meeting has been read and confirmed
- Assessment and display of marks was applied as per norms.
- No grievances was received about the examination.

Shri Datta Prasadik Shikshan Prasarak Mandal's,

**L. Rajkamalji Bharti Arts, Commerce and Smt. Sushilabai R.
Bharti Science College Arni, Dist-Yavatmal**

**Examination Committee / Internal Examination
Grievance Committee
Academic Year 2019-20
ANNUAL REPORT**

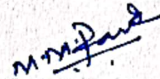


In the academic session 2019-20, the same examination committee is continued as per last academic Session. The member of committee is

- 1) Dr. P. J. Awate (Convener)
- 2) Mr. V. R. Tokase (Member)
- 3) Dr. P. M. Wankhade (Member)

Annual planning of the examinations to be taken is done. The two-unit test is conducted in the first half session out of which first unit test conducted in second week of August and second unit test is conducted in second week of September.

And the two unit is conducted in second half of the session out of which first unit test was conducted in middle of January and second in last week of February. Both the unit tests were conducted at departmental level for the students.


IQAC Co-ordinator
Late R. Bharti Arts. Com &
Smt S.R. Bharti Sci. College
Arni, Dist. - Yavatmal


Principal
Late R. Bharti Arts. Com. &
Smt. S.R. Bharti Sci. College
Arni, Dist. Yavatmal

**LATE RAJKAMALJI BHARTI ARTS, COMMERCE AND
SMT. SUSHILABAI R. BHARTI SCIENCE COLLEGE,
ARNI, DIST-YAVATMAL**



Examination Committee Report

2018-2019



Shri Datta Prasadik Shikshan Prasarak Mandal's,
L. Rajkamalji Bharti Arts, Commerce and Smt. Sushilabai R.
Bharti Science College Arni, Dist-Yavatmal

**Examination Committee / Internal Examination Grievance
Committee**

Academic Year 2018-19

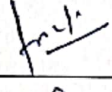
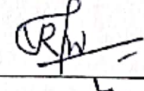
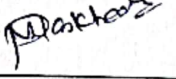


NOTICE

All the members of Examination Committee / Internal Examination Grievance Committee are hereby Informed that the meeting of related to examination and grievances will be held on 02/08/2018 at 11A.M.in the Department of Zoology. All members of committee are request to attend the meeting.

Date :30/07/2018


Principal
Late R. Bharti Arts, Com. &
Smt. S. R. Bharti Sci. College
Arni, Dist. Yavatmal

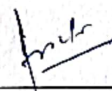
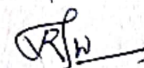
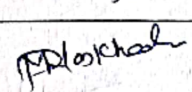
Name of Committee Member	Signature
1.Dr. Prashant J. Awate	
2.Mr. V. R. Tokase	
3.Dr. P.M. Wankhade	

AGENDA OF MEETING

1. To read and confirm the minutes of previous meeting.
2. To discuss about the printing mistakes in the question papers.
3. Any other issue with permission of chairman.

Minutes of the Meeting

- The meeting of Examination Committee/Internal Examination Grievance Committee for the 2018-19 was held on 02/08/2018 at department of Zoology.
- Meeting was chaired by Hon. Mr. G.M. Agarwal, Principal, Coordinator Dr. P. J. Awate welcomed all members.
- Following issues was discussed in the meeting.
- To read and Confirm Minutes of previous meeting.
- Printing mistakes in the question papers was discussed
- Following members were present for the meeting

Name of Committee Member	Signature
1.Dr. Prashant J. Awate	
2.Mr. V. R. Tokase	
3.Dr. P.M. Wankhade	

Action Taken Report

- The minutes of the previous meeting has been read and confirmed.
- Question Papers was checked by the subject teacher after printing.



Shri Datta Prasadik Shikshan Prasarak Mandal's,
L. Rajkamalji Bharti Arts, Commerce and Smt. Sushilabai R.
Bharti Science College Arni, Dist-Yavatmal

**Examination Committee / Internal Examination Grievance
Committee
Academic Year 2018-19**



NOTICE

The following Members are here by informed that they are appointed as Member of Supervision Committee for Internal Examination for the Academic year 2018-19 to supervise the internal examinations of BA /B.Sc. /B. Com during the internal examination schedule.

The Committee members should remain present at given time and supervise the examination.

Sr. No.	Name of Committee Member	Signature
1	Mr. U.D.Chavan (Commerce Dept)	
2	Mr. S.N. Bole (Arts Dept)	
3	Dr. M.R. Kakpure (Science Dept)	

Principal
L.R.B.A.C.S.R.Bharti Arts, Com. &
Smt. S.R.Bharti Sci.College
Arni, Dist. Yavatmal



Shri Datta Prasadik Shikshan Prasarak Mandal's,

L. Rajkamalji Bharti Arts, Commerce and Smt. Sushilabai R.
Bharti Science College Arni, Dist-Yavatmal.

**Examination Committee / Internal Examination Grievance
Committee**

Academic Year 2018-19

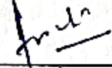
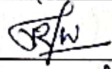
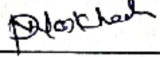
NOTICE



All the members of Examination Committee/ Internal Examination Grievance Committee are hereby Informed that the meeting of related to examination and grievances will be held on 08/10/2018 at 10A.M.in the Department of Zoology. All members of committee are request to attend the meeting.

Date-05/10/2018


Principal
L. Rajkamalji Bharti Arts, Commerce &
Smt. S.R. Bharti Sci. College
Arni, Dist. Yavatmal

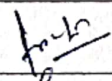
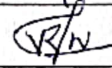
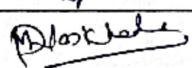
Name of Committee Member	Signature
1.Dr. Prashant J. Awate	
2.Mr. V. R. Tokase	
3.Dr. P.M. Wankhade	

AGENDA OF MEETING

- 1.To read and confirm the minutes of previous meeting
2. To discuss about the assessment procedure and display of marks
3. Discussion on Procedure of grievances
4. Any other issue with permission of chairman

MINUTES OF THE MEETING

- The meeting of Examination Committee/Internal Examination Grievance Committee for the 2018-19 was held on 08/10/2018 at Department of Zoology.
- Meeting was chaired by Hon. Mr. G. M. Agrawal, Principal Coordinator Dr. P. J. Awate welcomed all members. Following issues was discussed in the meeting.
- To read and Confirm Minutes of previous meeting.
- Assessment and marks display procedure was discussed
- Discussion on procedure of grievances,
- Following members were present for the meeting

Name of Committee Member	Signature
1.Dr. Prashant J. Awate	
2.Mr. V. R. Tokase	
3.Dr. P.M. Wankhade	

ACTION TAKEN REPORT

- The minutes of the previous meeting has been read and confirmed
- Assessment and display of marks was applied as per norms.
- No grievances was received about the examination.

Shri Datta Prasadik Shikshan Prasarak Mandal's,

**L. Rajkamalji Bharti Arts, Commerce and Smt. Sushilabai R.
Bharti Science College Arni, Dist-Yavatmal**

**Examination Committee / Internal Examination
Grievance Committee
Academic Year 2018-19
ANNUAL REPORT**



In the academic session 2018-19, the same examination committee is continued as per last academic Session. The member of committee is

- 1) Dr. P. J. Awate (Convener)
- 2) Mr. V. R. Tokase (Member)
- 3) Dr. P. M. Wankhade (Member)

Annual planning of the examinations to be taken is done. The two unit test is conducted in the first half session out of which first between 5th August, 2018 to 14 August 2018 and second unit test is conducted in second week of September. And the two unit is conducted in second half out of which first unit test was conducted in middle of January and second in last week of February. Both the unit tests was conducted at departmental level for the students.

[Signature]
ICAC Co-ordinator
Late R. Bharti Arts. Com &
Smt S.R. Bharti Sci. College
Arni, Dist. - Yavatmal

[Signature]
Principal
Late R. Bharti Arts. Com. &
Smt S.R. Bharti Sci. College
Arni, Dist. Yavatmal

स्थापना : १९८४



॥ श्री दत्त प्रसन्न ॥
श्री दत्त प्रासादिक शिक्षण प्रसारक मंडळ, आणी द्वारा संचालित

**स्व. राजकमलजी भारती कला, वाणिज्य व श्रीमंती सुशीलाबाई र.
भारती विज्ञान महाविद्यालय आणि जि.यवतमाळ.**

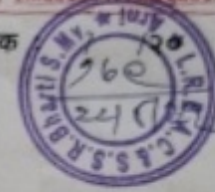
डॉ. संजय राजकमलजी भारती
अध्यक्ष

श्री. जी. एम. अग्रवाल
प्राचार्य

Phone(Office) : 07234-266468, Website : www.smdb.ac.in, Email ID : smdb.bharti@yahoo.com, smdbacc468@sdbaw.ac.in

पत्र क्रमांक

दिनांक



प्रती

संचालक

परीक्षा व मूल्यमापन मंडळ

संत गाडगे बाबा अमरावती विद्यापीठ

अमरावती

विषय: हिवाळी-२०२१ परीक्षेत भारती दत्ता राठोड विद्यार्थ्याचे गुणपत्रिका
मिळणेबाबत

महोदय,

सविनय कळवितो कि आमचे महविद्यालयातील हिवाळी-२०२१ परीक्षेला प्रविष्ट असलेला भारती दत्ता राठोड ह्या विद्यार्थ्याची गुणपत्रिका त्यांना मिळाले नाही. तिच्या TR मध्ये English विषयामध्ये अंतर्गत गुण दर्शवित नाही व हिवाळी-२०२० marksheet मध्ये १० अंतर्गत गुण दर्शवित आहे. तरी सदर विद्यार्थ्याची अंतर्गत गुण समाविष्ट करून सदर विद्यार्थ्याची गुणपत्रिका देण्यात यावी हि विनंती. करिता सादर.

विद्यार्थ्याचे नाव	आसन क्र.	वर्ग
भारती दत्ता राठोड	२१AA ३२५०२७	B. A. I Sem-I

सहपत्र

१) Xerox copy of TR व हिवाळी-२०२० marksheet

स्व. रा. भारती कला, वाणिज्य व
श्रीमती सु.रा.भारती विज्ञान महा
आणी. वि. यवतमाळ



श्री दत्त प्रसादिक शिक्ष प्रसारक मंडळ, आणी द्वारा संचालित

स्थापना : १९८४

स्व.राजकमलजी भारती कला, वाणिज्य व श्रीमती सुशीलाबाई रा.
भारती विज्ञान महाविद्यालय आणि जि.यवतमाळ.

अध्यक्ष

डॉ.किरणताई संजयजी भारती
मो.९६५७०५८०५५

सचिव

डॉ.सिद्धार्थ संजयजी भारती
मो.९६५७०५८०५५

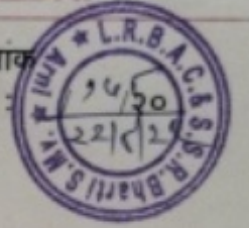
प्र.प्राचार्य

डॉ.निवृत्ती आ.पिस्तुलकर
मो.९४२९७७२९९८

Phone(Office) : 07234-295468, Website : www.smdb.ac.in, Email ID : smdbacc418@sgbau.ac.in

पत्र क्रमांक

दिनांक :



प्रती

संचालक

परीक्षा व मूल्यमापन मंडळ

संत गाडगे बाबा अमरावती विद्यापीठ

अमरावती

विषय: हिवाळी-२०२१ परीक्षेत नाजमीन अल्लाउद्दिन फानन विद्यार्थ्याचे गुणपत्रिका
मिळणेबाबत

महोदय,

सविनय कळवितो कि आमचे महाविद्यालयातील हिवाळी-२०२१ परीक्षेला प्रविष्ट असलेला
नाजमीन अल्लाउद्दिन फानन ह्या विद्यार्थ्याची गुणपत्रिका त्यांना मिळाले नाही. तिच्या
TR मध्ये सोसीओलोजी विषयामध्ये अंतर्गत गुण दर्शवित आहे. तरी सदर विद्यार्थ्याचीचे
अंतर्गत गुण समाविष्ट करून सदर विद्यार्थ्याचीचे गुणपत्रिका देण्यात यावी हि विनंती.
करिता सादर.

विद्यार्थ्याचे नाव	आसन क्र.	वर्ग	विषय शिक्षकाची स्वाक्षरी	अंतर्गत गुण
नाजमीन अल्लाउद्दिन फानन	२१AA ३२५०६२	B. A. I Sem- I		16

सहपत्र

सहपत्र

स्व. रा. भारती कला, वाणिज्य व
श्रीमती सु.रा.भारती विज्ञान महा
आणी. जि. यवतमाळ

१) Xerox copy of Mark sheet Sem-I, II, III, IV, VTR
(B. A. I Sem-I) TR

स्थापना : १९८४



॥ श्री दत्त प्रसन्न ॥
श्री दत्त प्रासादिक शिक्षण प्रसारक मंडळ, आणी द्वारा संचालित

स्व.राजकमलजी भारती कला, वाणिज्य व श्रीमती सुशीलाबाई रा.
भारती विज्ञान महाविद्यालय आणि जि.यवतमाळ.

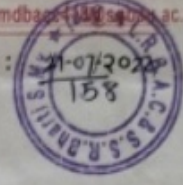
डॉ. संजय राजकमलजी भारती
अध्यक्ष

श्री. जी. एम. अग्रवाल
प्राचार्य

Phone(Office) : 07234-266468, Website : www.smdb.ac.in, Email ID : smdb.bharti@yahoo.com, smdb.ac.in

पत्र क्रमांक

दिनांक :



प्रती

संचालक

परीक्षा व मूल्यमापन मंडळ

संत गाडगे बाबा अमरावती विद्यापीठ

अमरावती

विषय: उन्हाळी-२०२१ परीक्षेत पवन किशोर राठोड विद्यार्थ्याचे गुणपत्रिका
मिळणेबाबत

महोदय,

सविनय कळवितो कि आमचे महाविद्यालयातील उन्हाळी २०२१ परीक्षेला
प्रविष्ट असलेला पवन किशोर राठोड ह्या विद्यार्थ्याची गुणपत्रिका त्यांना
मिळाले नाही. तरी सदर विद्यार्थ्याचे गुणपत्रिका देण्यात यावी हि विनंती.
करिता सादर.

विद्यार्थ्याचे नाव	आसन क्र.	वर्ग
पवन (किशोर) राठोड	७९७३२	B.A.III Sem-VI R

निष्पत्ती

स्व. रा. भारती कला, वाणिज्य व
श्रीमती सु. रा. भारती विज्ञान महा
आणी जि. यवतमाळ

सहपत्र

१) Xerox copy of Marksheet Sem-I, II, III, IV, V

P. K. Antur



स्थापना : १९८४



॥ श्री दत्त प्रसन्न ॥
श्री दत्त प्रासादिक शिक्षण प्रसारक मंडळ, आणी द्वारा संचालित

स्व. राजकमलजी भारती कला, वाणिज्य व श्रीमती सुशीलाबाई रा.
भारती विज्ञान महाविद्यालय आणि जि.यवतमाळ.

डॉ. संजय राजकमलजी भारती
अध्यक्ष

श्री. जी. एम. अग्रवाल
प्राचार्य

Phone(Office) : 07234-266468, Website : www.smdb.ac.in, Email ID : smdb.bharti@yahoo.com, smdbacc418@sgbau.ac.in

पत्र क्रमांक

दिनांक :



प्रती

संचालक

परीक्षा व मूल्यमापन मंडळ

संत गाडगे बाबा अमरावती विद्यापीठ

अमरावती

विषय: उन्हाळी-२०२२ परीक्षेत प्रणिता किसन तिजारे विद्यार्थ्याचे गुणपत्रिका
मिळणेबाबत

महोदय,

सविनय कळवितो कि आमचे महाविद्यालयातील उन्हाळी-२०२२ परीक्षेला
प्रविष्ट असलेला प्रणिता किसन तिजारे ह्या विद्यार्थ्याची गुणपत्रिका त्यांना
मिळाले नाही. तरी सदर विद्यार्थ्याचे गुणपत्रिका देण्यात यावी हि विनंती.
करिता सादर.

विद्यार्थ्याचे नाव	आसन क्र.	वर्ग
प्रणिता किसन तिजारे	21AA520896	B. A. III Sem-VI

निष्कर्ष

सहपत्र

स्व. रा. भारती कला, वाणिज्य व
श्रीमती सु. रा. भारती विज्ञान मंडळ
आणी जि. यवतमाळ

५) Xerox copy of Mark sheet Sem-I, II, III, IV, V

६) Environment Certificate

स्थापना : १९८४
Established in: 1984

॥ श्री दत्त प्रसन्न ॥

Shri Datta Prasadik Shiksha Prasarak Mandal, Arni, द्वारा संचालित



रा.रा.भारती कला, वाणिज्य व श्रीमती सुशोलाबाई रा.
Bharti Science College, Arni, Dist. Yavatmal.
भारती विज्ञान महाविद्यालय आणि जि.यवतमाळ.

डॉ. राजेंद्रराव भारती
President

डॉ. Dr. R.M. Tated
Principal

Phone (Office) 072364-266468, Website: www.smdh.ac.in, E-mail ID: smdh.bharti@yahoo.com, smdh.bharti@gmail.com, smdhacc418@ogbau.ac.in

Ref. N83 क्रमांक

Date: 08/12/2021
दिनांक : / / २०

प्रति,
परीक्षा नियंत्रक,
परीक्षा व मूल्यमापन मंडळ
संत गा.बा.अमरावती विद्यापीठ अमरावती.

विषय : उन्हाळी -२०२०, कु.आरती आर्ती दत्ता गारशेलवार परीक्षा क्र.८०१२९ हिने
कोणतेही unfaremeans केलेले नसतांना निकाल W/U मध्ये
असल्याबाबत.

महोदय,

सविनय कळवितो कि आमचे महाविद्यालयातील हिवाळी -२०२० परीक्षेला प्रविष्ट असलेली विद्यार्थिनी कु. आर्ती दत्ता गारशेलवार, वर्ग BSc II Sem III हिला खालील प्रमाणे गुण मिळाले होते. तिचे कोणतेही W/U प्रकरण आमचे केंद्रावर झालेले नाही परंतु तरीही T.R. मध्ये सदर विद्यार्थिनी च्या नावा समोर W/U अशी नोंद आहे. कृपया सदर विद्यार्थिनीने कोणतेही unfaremeans केलेले नसल्यामुळे सदर विद्यार्थ्यानीची गुणपत्रिका देण्यात यावी हि विनंती.

विद्यार्थ्यानीचे नाव	रोल न.	वर्ग	विषय	गुण			विषय शिक्षकांची स्वाक्षरी
				Th	Pr	In	
कु.आरती दत्ता गारशेलवार	८०१२९	BSc II Sem III	Botany	67	50	17	35.00
			Zoology	61	50	20	50.00
			chemistry	61	28	10	50.00

०८/१२/२०२१
भांडारी अधिकारी
केंद्रीय मूल्यांकन कार्यक्रम केंद्र,
संत गाडगे विद्यापीठ अमरावती.

स्व. रा. भारती कला, वाणिज्य व
श्रीमती सु.रा.भारती विज्ञान महा
आर्ती. जि. यवतमाळ

Dr. Sanjay R. Bharti
PresidentDr. R.M. Tated
Principal

Phone (Office): 07234 - 266468,

Website: www.smdb.ac.in,

E-mail ID: smdb.bharti@yahoo.com,

Ref. No. :

Date:



प्रति,

परीक्षा नियंत्रक,

परीक्षा व मूल्यमापन मंडळ

संत गा.बा.अमरावती विद्यापीठ अमरावती.

विषय : उन्हाळी -२०२०, कु.आरती दत्ता गारशेलवार यांचे गुण आपणाकडे पाठवीत
असल्याबाबत.

महोदय,

सविनय कळवितो कि आमचे महाविद्यालयातील हिवाळी -२०२० परीक्षेला प्रविष्ट
असलेले विद्यार्थिनी कु.आरती दत्ता गारशेलवार, वर्ग BSc II Sem III यांचे
गुण आपणाकडे पाठवीत आहेत .त्यांना खालील प्रमाणे गुण मिळाले होते करिता सदर विद्यार्थ्यांनीची
गुणपत्रिका पाठविण्यात यावी हि विनंती.

विद्यार्थ्यांचे नाव	रोल न.	वर्ग	विषय	गुण			विषय शिक्षकांचे स्वाक्षरी
				Th	Pr	In	
कु.आरती दत्ता गारशेलवार	८०१२९	BSc II Sem III	Botany	67	50	17	Dr. Jay.
			Zoology	61	50	20	Dr. J.
			chemistry	61	28	10	Dr. B.

भांडार अधिकारी
केंद्रीय मुल्यांकन कार्यक्रम केंद्र,
संत गाडगे बाबा अमरावती विद्यापीठ,
अमरावती.Officer-In-Charge
C.N.418, Arniस्व.रा.भारती कला, वाणिज्य व
श्रीमंती सु.रा.भारती विज्ञान महा
आर्णी, जि.यवतमाळ.



Late Rajkamalji Bharti Arts, Commerce And Smt. Sushilabai R. Bharti Science College, Arni, Dist.Yavatmal.

Dr. Sanjay R. Bharti
President

Dr. R.M.Tated
Principal

Phone (Office): 07234 - 266468,

Website: www.smdb.ac.in,

E-mail ID: smdb.bharti@yahoo.com,

Ref. No. :

Date: 13/08/2021

प्रति,
परीक्षा नियंत्रक,
परीक्षा व मूल्यमापन मंडळ
संत गा.बा.अमरावती विद्यापीठ अमरावती.



विषय : उन्हाळी -२०२० कु.योगिता माऊली आठवले हिचे गुण आपणाकडे पाठवीत
असल्याबाबत.

महोदय,

सविनय कळवितो कि आमचे महाविद्यालयातील उन्हाळी -२०२० परीक्षेला प्रविष्ट असलेली विद्यार्थिनी कु.योगिता माऊली आठवले वर्ग BCom I Sem II हिचे गुण असलेल्या, खालील विषयाच्या कंट्रोल शिट यापूर्वीच आपणाकडे पाठवलेल्या होत्या.

तिला खालील प्रमाणे गुण मिळाले होते करिता शरद विद्यार्थ्यांनीची गुणपत्रिका पाठविण्यात यावी हि विनंती.

विद्यार्थ्यांनीचे नाव	रोल न.	वर्ग	विषय	गुण	विषय शिक्षकांची स्वाक्षरी
कु.योगिता माऊली आठवले	२२५२५	BCom I Sem II	Comp.Fundamental & op. System	56	

OCC

भांडार अधिकारी

केंद्रीय मूल्यांकन कार्यक्रम केंद्र,
संत गाडगे बाबा अमरावती विद्यापीठ,
अमरावती.

Officer-In-Charge
C.N.418,Arni

Official Principal
Late.R.Bharti Arts.Com.&
Smt.S.R.Bharti Sci.College
Arni, Dist-Yavatmal

**Late Rajkamalji Bharti Arts, Commerce And Smt. Sushilabai R.
Bharti Science College, Arni, Dist.Yavatmal.**



Dr. Sanjay R. Bharti
President

Dr. R.M.Tated
Principal

Phone (Office): 07234 - 266468,

Website: www.smdb.ac.in,

E-mail ID: smdb.bharti@yahoo.com

Ref. No. :

Date: 03/09/2021

प्रति,
परीक्षा नियंत्रक,
परीक्षा व मूल्यमापन मंडळ
संत गा.बा.अमरावती विद्यापीठ अमरावती.

विषय : उन्हाळी -२०२० सुमित रामराव चव्हाण यांचे गुण आपणाकडे पाठवीत
असल्याबाबत.

महोदय,

सविनय कळवितो कि आमचे महाविद्यालयातील उन्हाळी -२०२० परीक्षेला प्रविष्ट असलेले विद्यार्थी सुमित रामराव चव्हाण वर्ग B.Sc.-II Sem III यांचे गुण असलेल्या, खालील विषयाच्या कंट्रोल शिट यापूर्वीच आपणाकडे पाठवलेल्या होत्या.

त्यांना खालील प्रमाणे गुण मिळाले होते करिता सदर विद्यार्थ्यांनीची गुणपत्रिका पाठविण्यात यावी हि विनंती.

विद्यार्थ्याचे नाव	रोल न.	वर्ग	विषय	गुण			विषय शिक्षकांची स्वाक्षरी
				Th	In	Pr	
सुमित रामराव चव्हाण.	९४१८४	B.Sc.- II Sem -III	Physics	66	17	43	<i>[Signature]</i>
			Math- V	48	14	-	<i>[Signature]</i>
			Math - VI	51	13	-	<i>[Signature]</i>
			Computer Science	72	18	40	<i>[Signature]</i>

भांडार अधिकारी
केंद्रीय मूल्यांकन कार्यक्रम केंद्र,
संत गाडगे बाबा अमरावती विद्यापीठ,
अमरावती.

भांडार अधिकारी
केंद्रीय मूल्यांकन कार्यक्रम केंद्र,
संत गाडगे बाबा अमरावती विद्यापीठ,
अमरावती.

Office In-Charge
C.N.418, Arni

Principal
Late R.Bharti Arts, Com. &
Smt. S.R.Bharti Sci. College
arni, Dist.Yavatmal

MONO.
7083165896

ना : १९८४

॥ श्री दत्त प्रसन्न ॥
श्री दत्त प्रासादिक शिक्षण प्रसारक मंडळ, आर्णी द्वारा संचालित



**स्व. राजकमलजी भारती कला, वाणिज्य व श्रीमती सुशीलाबाई रा.
भारती विज्ञान महाविद्यालय आणि जि.यवतमाळ.**

डॉ. संजय राजकमलजी भारती
अध्यक्ष

श्री. जी. एम. आम्बावल
प्राचार्य

Phone(Office) : 07234-266468, Website : www.smdb.ac.in, Email ID : smdb.bharti@yahoo.com, smdbacc418@srgbau.ac.in

पत्र क्रमांक



प्रती,
मा. संचालक,
परीक्षा व मूल्यमापन मंडळ,
संत गाडगे बाबा अमरावती विद्यापीठ,
अमरावती.

विषय: विद्यापीठ निर्देशानुसार महाविद्यालयीन स्तरावर घेण्यात आलेल्या उन्हाळी-२०२० परीक्षेच्या गुणाबाबत,

महोदय,

आपणास माहिती करिता सादर करण्यात येते की, खालील विद्यार्थी हे आमच्या महाविद्यालयातील नियमित विद्यार्थी असून त्यांनी B.Sc. II (Semester III) उन्हाळी -२०२० परीक्षा दिलेली होती. त्यांचे रोल नं. व नावे खालील प्रमाणे आहे व ते परीक्षेला हजर होते. त्यांना मुळ गुणपत्रिकेत Computer Science (CPS) या विषयात गैरहजर दर्शविण्यात आले आहे. परंतु Computer Science (CPS) या विषयाला ते उपस्थित होते व कॉलेज रेकॉर्ड प्रमाणे त्यांचे गुण खालील प्रमाणे आहेत.

विद्यार्थ्याचे नाव:	वर्ग	रोल नं.	विषय	मिळालेले गुण:
स्वप्नील गजानन ठाकरे	B.Sc. II (Semester III)	941812	Computer Science	60
साक्षी श्रीचंद राठोड	B.Sc. II (Semester III)	94183	Computer Science	68
नयन राजेश राठोड	B.Sc. II (Semester III)	28546	Computer Science	68

%
D
Received
29/06/21

करिता आपल्या माहितीस्तव सादर 24/06/2021

Asst. Professor
Late R. Bharti Arts. Com. &
Smt. S.R. Bharti Sci. College
Arni, Dist. Yavatmal

स्व. रा. भारती कला, वाणिज्य व
श्रीमती सु. रा. भारती विज्ञान महा
आर्णी, जि. यवतमाळ.



Scanned with OKEN Scanner