

Gujarat Board

QUESTION PAPER

Gujarat Secondary and Higher Secondary Education Board Previous Year Question Papers

aglasem.com



This Question Paper contains 16 printed pages.
(Part - A & Part - B)

Sl.No.

056(E)

(JUNE, 2024)
SCIENCE STREAM
(CLASS - XII)

Part - A : Time : 1 Hour / Marks : 50
Part - B : Time : 2 Hours / Marks : 50

પ્રશ્ન પેપરનો સેટ નંબર જેની સામેનું વર્તુળ OMR શીટમાં ઘટ્ટ કરવાનું રહે છે.
Set No. of Question Paper, circle against which is to be darken in OMR sheet.

13

(Part - A)

Time : 1 Hour] ***[Maximum Marks : 50***

Instructions :

1) **There are 50 objective type (M.C.Q.) questions in Part - A and all questions are compulsory.**
2) **The questions are serially numbered from 1 to 50 and each carries 1 mark.**
3) **Read each question carefully, select proper alternative and answer in the O.M.R. sheet.**
4) **The OMR sheet is given for answering the questions. The answer of each question is represented by (A) O, (B) O, (C) O, (D) O. Darken the circle ● of the correct answer with ball-pen.**
5) **Rough work is to be done in the space provided for this purpose in the Test Booklet only.**
6) **Set No. of Question Paper printed on the upper-most right side of the Question Paper is to be written in the column provided in the OMR sheet.**

1) Statement (A) : Pyramid of energy is always upright

Reason (R) : Some energy is always lost as heat at each step

(A) A is wrong and R is right.

(B) A and R both are true but R is not true explanation of A.

(C) A is true and R is wrong

(D) A and R both are true, R is a right explanation of statement-A.

Rough Work

schools.aglasem.com
aglasem.com

Rough Work

2) _____ that came in to India has become ubiquitous in occurrence and causes pollen allergy.

(A) Runner

(B) Carrot grass

(C) Water Hyacinth

(D) Sea grass

3) Which plant seeds possess perisperm?

(A) black pepper, maize

(B) Maize, beet

(C) black pepper, beet

(D) Wheat, Black pepper

4) Clarian gariepinus is harmful to which organism

(A) Steller's Sea cow

(B) Nile perch

(C) Cichlid fishes

(D) Indigenous catfish

5) How many more hotspots have been added in the list of biodiversity.

(A) 09

(B) 05

(C) 03

(D) 07

6) In a particular climatic condition, decomposion rate is _____ if detritus is rich in liginin and chitin.

(A) zero

(B) slower

(C) stable

(D) faster

schools.aglasem.com

aglasem.com

Rough Work

7) _____ is an example of parthenocarpic fruit.

(A) Banana

(B) Mango

(C) Apple

(D) Ground-nut

8) Which type of endosperm is present in coconut?

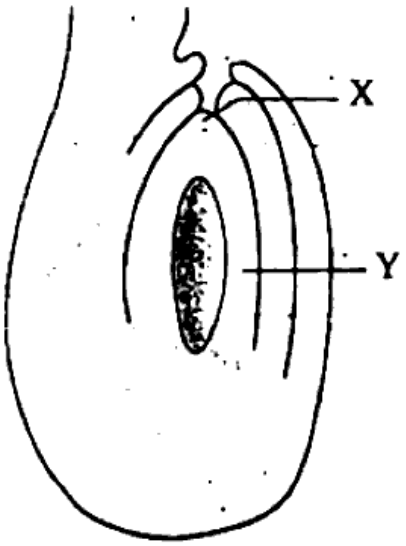
(A) Only non cellular endosperm

(B) Only cellular endosperm

(C) Both free nuclear endosperm and cellular endosperm

(D) Only free nuclear endosperm

9) Identify X and Y in given diagram.



(A) X - Nucellus, Y - embryosac

(B) X - Outer integument, Y - embryosac

(C) X - Micropyle, Y - Nucellus

(D) X - Micropylar pole, Y - Nucellus

10) Full form of CDRI _____

(A) Central Drug Research Institute

(B) Central Drug Resource Institute.

(C) Central Drug Resource Investigation

(D) Central Disease Research Institute

schools.aglasem.com
aglasem.com

Rough Work

11) Which option shows correctly matched pairs for column - I and column - II?

	Column - I		Column - II
(p)	Leydig cells	(i)	Help in the lubrication of the penis
(q)	Sertoil cells	(ii)	Secretion of progesteron
(r)	Corpus luteum	(iii)	Secretion of Androgens
(s)	Bulbourethral gland	(iv)	Provide nutrition to the sperm

(A) (p-ii), (q-i), (r-iv), (s-iii)
(B) (p-iv), (q-iii), (r-ii), (s-i)
(C) (p-iii), (q-iv), (r-ii), (s-i)
(D) (p-i), (q-ii), (r-iii), (s-iv)

12) Which one is diploid

(A) Spermatid
(B) Primary spermatocytes
(C) Secondary spermatocytes
(D) Spermatozoa

13) Which method is used by doctor to inject sperm directly in to the ovum?

(A) GIFT
(B) ICSI
(C) ET uterine
(D) IUI

14) Identify the recessive character of pea plant studied by mendel.

(A) Terminal flower
(B) Violet flower
(C) Inflated Pod shape
(D) Round seed

schools.aglasem.com

aglasem.com

15) Which sexual disease is not compeletely curable?

(A) gonorrhoea

(B) syphilis

(C) trichomoniasis

(D) hepatitis - B

16) Hormone releasing IUDs _____

(A) Cu T

(B) Cu 7

(C) LNG - 20

(D) Multiload 375

17) Which of the following is a Mendelian disorder?

(A) Cystic fibrosis

(B) Malaria

(C) Pneumonia

(D) Filariasis

18) The contraceptive pills for female are of _____.

(A) HCG

(B) Testosteron

(C) Progestogen

(D) Oxytocin

Rough Work

schools.aglasem.com

aglasem.com

Rough Work

19) Choose the correct option

(A) Kline felter disorder is caused due to monosomy of sex chromosomes

(B) Gametes are formed by equational division in male honey bee

(C) Colour blindness disorder due to defect in autosomes

(D) Sickle - cell anaemia occur by frame shift mutation

20) Which option shows correctly matched pairs from

	Column - I		Column - II
(p)	Trichoderma Polysporum	(i)	Butyric acid
(q)	Monascus Purpurous	(ii)	Cyclosporin A
(r)	Clostridium Butyricum	(iii)	Citric acid
(s)	Aspergillus niger	(iv)	Statins

(A) (p-iv), (q-ii), (r-i), (s-iii)

(B) (p-ii), (q-iv), (r-i), (s-iii)

(C) (p-ii), (q-i), (r-iii), (s-iv)

(D) (p-i), (q-ii), (r-iii), (s-iv)

21) Production of which beverage carried out with-out distillation

(A) Rum

(B) Brandy

(C) Wine

(D) Whisky

22) Baculo virus is included in which genus?

(A) Hepetitis virus

(B) T.M.V. Virus

(C) Nucleopoly hedro virus

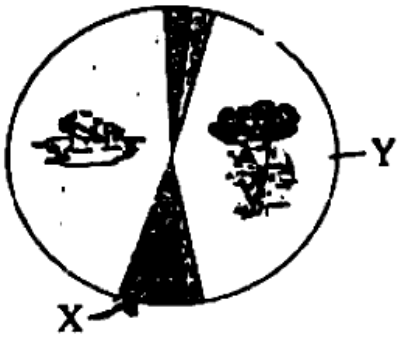
(D) Rhinovirus

schools.aglasem.com

aglasem.com

Rough Wo

23) Representing global biodiversity for proportionate number of species of major taxa of plants. Identify X and Y from given diagram.



(A) X - Algae, Y - Moss
(B) X - lichen, Y - Algae
(C) X - Fungi, Y - Algae
(D) X - Algae, Y - Angiosperm

24) The large holes in 'swiss cheese' due to _____
(A) CO_2
(B) NO_2
(C) CH_4
(D) O_2

25) Endonuclease _____
(A) It creats billion copies of DNA
(B) It remove nucleotide from the ends of DNA
(C) It joins the nucleotide in DNA
(D) It makes cut at the specific - Position within the DNA

26) Large reservoir of erythrocytes is _____
(A) Spleen
(B) Liver
(C) Appendix
(D) Thymus gland

schools.aglasem.com
aglasem.com

Rough Work

27) Hugo De-vries worked on which plant and gave the idea of mutation.

(A) Dog flower

(B) Commelina

(C) Evening Primrose

(D) Pea

28) The brain capasity of Homohabilis _____.

(A) 650 to 800 CC

(B) 900 to 1200 CC

(C) 1400 to 1600 CC

(D) 850 to 950 CC

29) Which chemicals produced by mast cells are responsible for allergy?

(A) Adrenalin and Steroids

(B) Hestamine and Serotonin

(C) Antibody and Penicillin

(D) Antitoxin and Interferon

30) Bacterio phage $\phi \times 174$ posess _____ nucleotides.

(A) 8653

(B) 8356

(C) 5386

(D) 6538

31) Histones are riched in which basic aminoacids.

(A) Valine and methionine

(B) Phenylalanine and methionine

(C) Valine and glutamine

(D) Lysin and Arginine

schools.aglasem.com

aglasem.com

32) Select correct pair based on divergent evolution.

(A) Thorn of Bougainvilea and tendril of Cucurbits

(B) Flippers of Penguin and wing of bird

(C) Eye of octopus and flippers of dolfin

(D) Modefied root of sweet potato and modified stem of potato

33) Which is initiator codon?

(A) A U G

(B) U U U

(C) C A C

(D) C A A

34) What is the sequence of mRNA if the sequence of the coding strand in a transcription unit is written as

5' – A T G C A T G C A – 3'

(A) A T G C A T G C A

(B) U A C G U A C G U

(C) A U G C A U G C A

(D) T A C G T A C G T

35) Which type of animals first evolved from lobefins

(A) Aves

(B) Reptiles

(C) Amphibians

(D) Mammals

36) Which of the following is correct order of steps in the PCR?

(A) Denaturation → Annealing → Extension

(B) Annealing → Denaturation → Extension

(C) Denaturation → Extension → Annealing

(D) Extension → Denaturation → Annealing

Rough Work

schools.aglasem.com

aglasem.com

Rough Work

37) A nematode Meloidegyne incognitia infects root of which plants?

(A) Chillies

(B) Tomato

(C) Tobacco

(D) Cabbage

38) DNA can be studied after staining with _____ in various fields.

(A) Eosin

(B) Ethidium Chloride

(C) Ethidium Bromide

(D) Fast Green

39) Find out the antibiotic resistance gene of the following

(A) BamH I

(B) Hind III

(C) Sal I

(D) amp^R

40) Golden rice is rich in _____

(A) Vitamin - D

(B) Vitamin - A

(C) Vitamin - C

(D) Vitamin - B

41) Corn borer is controlled by

(A) Cry II Ac

(B) Cry II Ab

(C) Cry I Ac

(D) Cry I Ab

schools.aglasem.com

aglasem.com

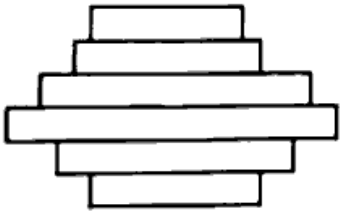
Rough Work

42) Write full form of G.E.A.C
(A) General engineering applied concept
(B) Genetic engineering approval committee
(C) Genetic engineering approval concept
(D) General engineering approval committee

43) How much human protein is present in one litre milk of Rosie cow?
(A) 4.2 gm
(B) 2.8 gm
(C) 5.2 gm
(D) 2.4 gm

44) Which type of interrelation is observed in species A(+) and species B(–)
(A) Amensalism
(B) Predation
(C) Commensalism
(D) Mutualism

45) A given figure of age pyramid for human population indicate?



(A) Expanding - Declining human Population
(B) Declining human population
(C) Stable human Population
(D) Expanding human population

46) In any population group, if rate of natality and immigration is increases then the density is _____
(A) Zero
(B) Decrease
(C) Stable
(D) Increase

schools.aglasem.com

aglasem.com

Rough Work

47) Which is the example of competitive interaction from the given below?

(A) Starfish Pisaster and clown fish

(B) Cuscuta and Mycorrhiza

(C) Visiting flamingoes and Resident fishes of shallow South American lakes

(D) Monarch butterfly and Balanus

48) Select the statement which explains best parasitism.

(A) One organism is benefited, other is affected.

(B) Both the organisms are benefited.

(C) One organism is benefited, other is not affected.

(D) One organism is benefited.

49) The second trophic level in a lake is

(A) Decomposers

(B) Phytoplankton

(C) Fishes

(D) Zooplankton

50) The number of trophic levels in the grazing food chain is restricted as the transfer of energy follows _____%.

(A) 16%

(B) 10%

(C) 8%

(D) 12%

schools.aglasem.com

aglasem.com

056(E)

(JUNE, 2024)
SCIENCE STREAM
(CLASS - XII)

(Part - B)

Time : 2 Hours] *[Maximum Marks : 50*

Instructions :

1) **Write in a clear legible handwriting.**
2) **There are three sections in Part - B of the question paper and total 1 to 27 questions are there.**
3) **All the questions are compulsory. Internal options are given.**
4) **The numbers at right side represent the marks of the question.**
5) **Start new section on new page.**
6) **Maintain sequence.**

SECTION - A

■ **Answer Questions No. 1 to 12 as directed. Each question carry 2 marks. (Attempt Any 8)** **[16]**

1) Explain pollination in Vellineria and sea grases. (Figures is not require)
2) Explain microsporogenesis in flowering plants.
3) Describe any two natural birth control methods.
4) Difference between Vasectomy and Tubectomy. (Two points of each)
5) Describe Turner's Syndrome.
6) State the criteria for molecule that work as genetic material.
7) Describe cellular and cytokine barriers of Innate-immunity.
8) Draw a well labelled diagram of an antibody molecule.
9) Write a short note : Selectable marker.
10) Explain brood parasitism in birds.
11) Explain Gross primary productivity and Net primary productivity.
12) Explain causes of biodiversity losses by over exploitation.

schools.aglasem.com
aglasem.com

SECTION - B

Answer question no 13 to 21 as directed. Each Question carries 3 marks. (Attempt any six) [18

13) Describe double fertilization in flowering plant. (Diagram is not necessary)

14) Explain various events during a menstrual cycle in detail.
(Diagram is not necessary)

15) Explain transforming principle with Griffith experiment.

16) Describe Miller's experiment with diagram.

17) Explain adaptive radiation. (Figure is not necessary)

18) Describe biological treatment of Sewage. (Figure is not necessary)

19) Write significance of microbes as Biofertilisers.

20) Describe genetically engineered insulin with diagram.

21) Discuss : "Different levels of biodiversity".

SECTION - C

Answer Question No. 22 to 27 in detail. (Any Four) [16]

(Each Question carry 4 marks)

22) Draw labelled diagram of the female reproductive system and explain about structure of uterus.

23) Give detailed account about colour blindness and sickle cell anaemia.
(Diagram is not require)

24) Explain metabolism of Lactose according to Jacob and Monod model.
(Diagram is not required)

25) "Cancer detection, diagnosis and treatment" - Discuss.

26) Explain the following :
i) Competent Host
ii) Isolation of the genetic material (DNA)

27) Explain logistic growth of population with the help of graph.

schools.aglasem.com
AglaSem Earn while Learn Program. Send your papers and get paid.
Contact: support@aglasem.com aglasem.com

QUESTION PAPERS

GET PREVIOUS YEAR QUESTION PAPERS FOR ALL CLASSES FOR CBSE, ISCSE, ISC AND ALL ALL STATE BOARDS HERE AT AGLASEM.COM

BOARD WISE

- Andhra Pradesh Board Question Papers
- Assam Board Question Papers
- Bihar Board Question Papers
- Chhattisgarh Board Question Papers
- Goa Board Question Papers
- Gujarat Board Question Papers
- Haryana Board Question Papers
- Himachal Pradesh Board Question Papers
- J&K State Board Question Papers
- Jharkhand Board Question Papers
- Karnataka Board Question Papers
- Kerala Board Question Papers
- Madhya Pradesh Board Question Papers
- Maharashtra State Board Question Papers
- Manipur Board Question Papers
- Meghalaya Board Question Papers
- Mizoram Board Question Papers
- Nagaland Board Question Papers
- Orissa Board Question Papers
- Punjab Board Question Papers
- Rajasthan Board Question Papers
- Tamil Nadu Board Question Papers
- Telangana State Board Question Papers
- Tripura Board Question Papers
- Uttarakhand Board Question Papers
- Uttar Pradesh (UP) Board Question Papers
- West Bengal (WB) Board Question Papers