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RBSE

**RAJASTHAN BOARD OF
SECONDARY EDUCATION**

2023

**CLASS
XII**

Question Paper

Date: 01 April 2023 | TIME : (08:30 a.m. to 11:45 a.m)

Duration: 3 hr 15 min. | Max. Marks: 56

SUBJECT: BIOLOGY

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To Know more : sms RESO at 56677 | Website : www.resonance.ac.in | E-mail : contact@resonance.ac.in | CIN : U80302RJ2007PLC024029

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This solution was download from Resonance Solution portal

SS-42-Biology

Roll No.

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SENIOR SECONDARY EXAMINATION, 2023 BIOLOGY

Time allowed : 3 hr, 15 Min.

Maximum Marks : 56

GENERAL INSTRUCTIONS TO THE EXAMINEES:

- 1) Candidate must write first his / her Roll No. on the question paper compulsorily.
- 2) All the questions are compulsory.
- 3) Write the answer to each question in the given answer-book only.
- 4) For questions having more than one part, the answers to those parts are to be written together in continuity.
- 5) If there is any error / difference / contradiction in the Hindi & English versions of the question paper, the question of Hindi version should be treated valid.
- 6) Write down the serial number of the question before attempting it.

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SECTION A

Answer the following questions by selecting the correct option in answer book.





1.
 - (i) Asexual reproductive structures in Hydra are - [1]
 - (A) Bud (B) Conidia
 - (C) Zoospores (D) Gemmules
 - (ii) Not an example of sexually transmitted disease is - [1]
 - (A) Gonorrhea (B) Syphilis
 - (C) Chlamydiasis (D) Cancer
 - (iii) The genetic code that codes for Methionine is - [1]
 - (A) UUU (B) AUG
 - (C) ACG (D) AAA
 - (iv) Example of lymphoid organ is - [1]
 - (A) Thymus (B) Liver (C) Pancreas (D) Stomach
 - (v) Microbe that is used as biofertilizer. [1]
 - (A) Trichoderma (B) Penicillium notatum
 - (C) Cyanobacteria (D) Lactobacillus
 - (vi) An enzyme that cut DNA into fragments - [1]
 - (A) DNA Ligase (B) Restriction enzyme
 - (C) DNA Polymerase (D) Proteases enzyme
 - (vii) Which protein gene 'cry' controls the corn borer. [1]
 - (A) I – Ac (B) I – Ac & II – Ab
 - (C) II – Ac (D) I – Ab
 - (viii) Example of In-situ conservation of biodiversity is - [1]
 - (A) Wildlife sanctuaries (B) Zoological park
 - (C) Botanical garden (D) Wildlife safari park
 - (ix) Main example of greenhouse gas is [1]
 - (A) Nitrogen (B) Carbon monoxide
 - (C) Methane (D) Oxygen
2. Fill in the blanks :
 - (i) Male honey bee are _____ (Ploidy) having _____ chromosomes. [$\frac{1}{2} + \frac{1}{2} = 1$]
 - (ii) Insulin used for diabetes was extracted from the _____ (organ) of slaughtered pigs and animals. [1]
 - (iii) The rate of biomass production is called _____. [1]
 - (iv) The world Summit on Sustainable Development held in 2002 in _____ South Africa [1]

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3. Give the answer of the following questions in a word or a line.
- Define external fertilisation. [1]
 - Write full name of ZIFT. [1]
 - The phenotype of RRyy genotype seeded plant will be - [1]
 - What is Transgenic animal? [1]
 - Write function of Adenosine deaminase. [1]
 - Write name of components of nucleoside. [$\frac{1}{2} + \frac{1}{2} = 1$]
 - Write one adaptation of seals found in polar seas. [1]
 - Explain one reason of deforestation. [1]

SECTION B

Short answer type questions (Answer word limit 50 words) :

- Write name and function of three parts of female reproductive system. [$\frac{1}{2} + \frac{1}{2} + \frac{1}{2} = 1\frac{1}{2}$]
- Write three hormones secreted by placenta [$\frac{1}{2} + \frac{1}{2} + \frac{1}{2} = 1\frac{1}{2}$]
- Explain 'Incomplete dominance' with example. [1½]
- Explain Turner's syndrome with symptoms. [1½]
- Write brain capacity and two characters of life style of Neanderthal man. [$\frac{1}{2} + 1 = 1\frac{1}{2}$]
- Explain 'Adaptive radiation' with example [1½]
- Define inbreeding. Write name of any one animal developed from interspecific hybridisation.
- Part - A contains the name of crop and Part - B contains their related disease resistance variety. Match the following: [$\frac{1}{2} + \frac{1}{2} + \frac{1}{2} = 1\frac{1}{2}$]

	PART-A		PART - B
(A)	Cowpea	(i)	Pusa Sadabahar
(B)	Cauliflower	(ii)	PusaKomal
(C)	Chilli	(iii)	Pusa Shubhra






- Write the name of the microorganism commonly called brewer's yeast. Write one use of it. [$1 + \frac{1}{2} = 1\frac{1}{2}$]
- Write full name of BOD. What is the relation of polluting potential and BOD of waste water. [$1 + \frac{1}{2} = 1\frac{1}{2}$]
- Draw a labelled diagram of sparged stirred-tank bioreactor. [1½]
- Explain anyone feature of cloning vector. [1½]

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SECTION C

Long answer type questions (Answer word limit 100 words)

16. Write the name of the pathogen of amoebiasis. Write two symptoms and two source of infection.

[1+1+1=3]

17. What are the stenothermal organism? Draw a diagrammatic representation of organismic response.

[1+2=3]

18. Define ecological succession. Explain Hydrarch succession and Xerarch succession in brief.

[1+2=3]

SECTION D

Essay type questions (Answer word limit 100 words) :

- 19.
- (i) Define pollination.
 - (ii) Explain double fertilisation.
 - (iii) Draw a labelled diagram of structure of fertilised embryo sac.

[1+1½ +1½ = 4]

OR

- (i) Define Xenogamy pollination.
- (ii) Write one example of each non-albuminous, albuminous, perispermic seed.
- (iii) Draw a labelled diagram of L.S. of pistil showing path of pollen tube growth.

[1+1½ +1½ = 4]

- 20.
- (i) Define translation.
 - (ii) Explain process of translation.
 - (iii) Draw a labelled diagram of translation.

[1+ 1½+1½ = 4]

OR

- (i) Name the disease that results from point mutation.
- (ii) Explain the Lac operon.
- (iii) Draw a labelled diagram of the Lac operon.



[1+ 1½+1½ = 4]

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CUET (UG)

2023

Common University Entrance Test



About CUET (UG)

Common University Entrance Test (CUET) is the program that provides equal opportunity to all students from different Boards & different region.

- CUET, known as Common Universities Entrance Test (CUET), is a Computer Based All - India Test for admission to various Undergraduate Programmes in 44 Central Universities and other State Private + Deemed Universities of India.
- CUET (UG) is organized by National Testing Agency (NTA).
- Official Website: <www.samarth.cuet.ac.in> OR <www.cuet.nta.ac.in>

Points to Remember: CUET (UG) 2023

- Candidates can choose any Language/Domain Specific Subjects/General Test or a combination as per the requirements of the course in the specific University.
- The choice of Tests/Subjects depend on the course/s chosen by the candidate and the University/ies where admission is sought.
- A Candidate can take a maximum of **10 tests**.



S.No.	SECTION	NO. OF QUESTIONS	QUESTIONS TO ATTEMPT	DURATION
1.	SECTION-I (A+B)	50	40	45 Minutes
2.	SECTION-II	50/45	40/35	45 Minutes*
3.	SECTION-III	60	50	45 Minutes*

*Not yet announced by NTA.

- **Section IA – 13 Languages (As a medium and “Language”)**

Assamese | Bengali | English | Gujarati | Hindi | Kannada | Malayalam | Marathi | Odia | Punjabi | Tamil | Telugu | Urdu

- **Section IB – 20 Languages**

Arabic | Bodo | Chinese | Dogri | French | German | Persian | Russian | Sindhi | Tibetan | Italian | Japanese | Kashmiri | Konkani | Maithili | Manipuri | Nepali | Santhali | Spanish | Sanskrit

- **Section II – 27 Domain-Specific Subjects**

There are 27 Domains specific Subjects being offered under this Section. Candidate may choose a maximum of Six (06) Domains as desired by the applicable University/Universities.

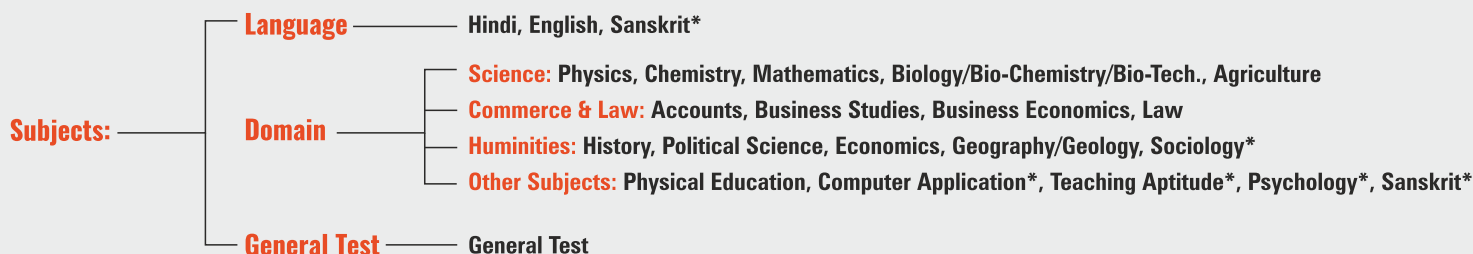
- **Section III – General Test**

General Knowledge, Current Affairs, General Mental Ability, Numerical Ability, Quantitative Reasoning (Simple application of basic mathematical concepts arithmetic/algebra geometry/mensuration/stat taught till Grade 8).

- Candidates, from any Stream (Arts / Commerce / Science), who are appearing in Class12th Examination in 2022-23 OR who have Passed the class 12th or equivalent examination, irrespective of their age can appear in the CUET (UG)–2023.
- Students of Science stream can explore some unique courses of B. Tech/ M. Tech / Bio-Tech courses through CUET exam at some renowned universities of India like DU / BHU etc.
- Candidates have to fulfil the age criteria if it is specified by a Particular University to which the candidate wishes to apply.

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