# CCE RR <br> UNREVISED 

## B

 KARNATAKA SECONDARY EDUCATION EXAMINATION BOARD, MALLESWARAM, BANGALORE - 560003

S.S.L.C. EXAMINATION, SEPTEMBER, 2020

యూదరి లుత్రరగఆక

## MODEL ANSWERS

దినాంళ : 28. 09. 2020 ]


Date: 28.09.2020]
Code no. : 83-E (Bio)
ఎిజయు : ఎిజ్ఞ్న్

## Subject : SCIENCE

( జి؟పలాస్త్ర / Biology )

( 山్లNరాఱతిఁత లలలా అభ్యథీ / Regular Repeater )
(ఇంగ్లిజ్ భలఱాంతర / English Version )

[ Max. Marks : 80

| Qn. <br> Nos. | Value Points | Total |
| :---: | :--- | :---: |
| 3. | The disease caused by human papiloma virus is |  |
|  | (B) Gonorrhoea |  |
| (A) Birdflu | (D) Genital warts. |  |
| (C) Syphilis |  |  |
| Ans. : |  |  |
| (D) Genital warts The hormone deficiency in a person suffering from goitre is <br> (A) Parathormone (B) Thyroxine <br> (C) Insulin (D) Cortisone. <br> Ans. : 1 <br> (B) Thyroxin  |  |  |

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| Qn. <br> Nos. | Value Points | Total |
| :---: | :---: | :---: |
| 9. | The technique used to identify the genetic relationship is <br> (A) cloning <br> (B) DNA finger print technology <br> (C) blood test <br> (D) tissue culture. <br> Ans. : <br> (B) D.N.A. finger print Technology | 1 |
| 12. | "When compared to detergents soaps are ecofriendly." Why ? <br> Ans. : <br> Soaps are biodegradable. | 1 |
| 14. | When apical portion of the jowar plant is cut and removed, then the plant will die. Why ? <br> Ans. : |  |
|  | Plant dies due to removal of apical meristem / meristematic tissue. | 1 |
| 17. | What is monohybrid cross ? <br> Ans. : |  |
|  | A cross between two plants which differ in one specific character is called monohybrid cross. | 1 |
| 19. | Mention the symptoms found in a person suffering from dengue fever. Ans. : |  |
|  | $\star$ Headache, fatigue, fever, muscle and joint pain. <br> Swollen glands |  |
|  | $\star$ Bleeding gums |  |
|  | $\star$ Severe pain behind eyes |  |
|  | $\star$ Redness in palms and soles. | 2 |
| 22. | What are the limitations of biotechnology ? <br> OR |  |
|  | Why did Mendel select pea plants for his experiment? <br> Ans. : |  |
|  | $\star$ Results in seed sterility in plants. <br> $\star$ Cloning would pose serious social, ethical, moral and cultural problems. |  |
|  | $\star$ Used for illegal purposes and destructive activities. <br> $\star$ Genetically modified foods threatening the human health. <br> $\star$ Upsets the balance of the nature. <br> ( Any two ) $1+1$ | 2 |
|  | OR |  |


| Qn. <br> Nos. | Value Points |
| :---: | :---: |
|  | Mendal had the following advantages with pea plants. |

* They can be grown easily in open ground or even in pots.
$\star \quad$ They have a short growth period and life cycle
$\star \quad$ They give selfpollinating flowers and also it is easy to conduct cross pollination artificially
$\star \quad$ They produce large number of seeds
$\star$ They show contrasting heritable characters
$\star \quad$ They produce fertile hybrids on cross pollination.

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\text { ( Any two ) } \quad 1+1
$$

26. Suggest the measures to be followed to control the depletion of ozone layer.
Ans. :
$\star \quad$ Making less use of refrigerators and cooling equipments
$\star$ Burning less fossil fuels
$\star$ Making less use of insulating foam
$\star$ Using more public transport vehicles like train and bus.
( Any two )
$1+1$
27. List the advantages of making changes in genetic material of animals in animal breeding.

OR
Explain any two methods followed in conventional plant breeding.
Ans. :
$\star$ Improves the growth rate

* Increases the production of milk, meat egg, wool and other products
$\star$ Improves the quality products
$\star \quad$ Improves the resistance to diseases
$\star$ Increases the shelf life of productivity
$\star$ Increases the rate of reproduction. (Any two ) $1+1$ ( Consider other suitable answer )

OR
i) Selection of plants : Selecting the plants from a population of plants having desirable characteristics.
ii) Hybridization : Bringing together desired traits through cross pollination in one plant.
iii) Polyploidy : Selecting the plants with multiple sets of chromosomes.
iv) Induced mutation : Bringing genetic changes in plant by using certain agents called mutagens. $\quad$ ( Any two ) $1+1$

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| Qn. <br> Nos. |
| :--- |
| Draw the diagram showing the structure of a dicot plant. Label the <br> following parts : <br> i) Flower <br> ii) Root. <br> Ans. : |

34. Mention any four changes found, when Dryopithecus pre-human ancestors evolved into Zinjanthropus pre-humans.

Ans. :
$\star$ Developed stronger and straighter legs with feet suited more for walking.
$\star$ Prehensile nature of the big toe was gradually lost.
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| Qn. <br> Nos. | Value Points |  |
| :---: | :---: | :---: |
|  | $\star$ | Upright posture was the result of evolutionary changes in the pelvic <br> girdle and associated muscles. |
|  | $\star \quad$The pelvic girdle changed into a broad basin like structure to <br> support the trunk. |  |
|  | $\star \quad$Cerebrum showed considerable enlargement. <br> (Any four) | $4 \times \frac{1}{2}$ |

36. Write any three differences between amphibians and reptiles.

OR
Write any three differences between vascular plants and non-vascular plants.

Ans. :

| Amphibians | Reptiles |
| :--- | :--- | :--- |
| $\star$There is no exoskeleton, skin <br> is smooth and moist | Exoskeleton is in the form of <br> epidermal scales forming <br> distinct plates |
| $\star \quad$The tail may be absent in <br> adult stage | $\star$ In adult stage tail is present |
| $\star$Respiratory organs are gills in <br> the larva and a pair of lungs in <br> the adult. Skin also helps in <br> respiration | $\star$Respiratory organs are a pair <br> of lungs |
| $\star \quad$Nervous system has a brain, a <br> spinal cord and ten pairs of <br> cranial nerves | $\star$Nervous system has a brain, a <br> spinal cord and 12 pairs of <br> cranial nerves |
| $\star \quad$Fertilization and development <br> both are external | $\star$Fertilization is internal but <br> development is external. |


| Qn. <br> Nos. | Value Points |  |
| :---: | :---: | :---: |
|  | Vascular plants | Non-vascular plants |
|  | ^ Xylem and phloem present | ^ Xylem and phloem absent |
|  | $\star$ Vascular plants classified into <br> ^ Pteridophytes <br> ^ Gymnosperms <br> ^ Angiosperms | * Non-vascular plants classified into <br> ^ Multicellular Algae <br> $\star$ Bryophytes |
|  | $\star$ Found in all kinds of Habitats | $\star$ Found in cold and humid conditioned Habitats |
|  | ^ Most of the plants have definite root, stem, leaves | * Most of the plants have thalloid structure |

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\text { ( Any three ) } \quad 1+1+1
$$

a) Leaves of banana plant will tear easily by wind force but the midrib of the leaves do not tear. Why ?
b) The body of a person is showing low immunity against bacterial infection. In which tissue there is a problem and how this tissue protects our body ?

Ans. :
a) In leaves, thin walled parenchyma cells are arranged loosely. But in midrib thick walled collenchyma with hemicellulose or pectin is present.
b) $\quad \star$ Lymph tissue 1
$\star \quad$ By producing antibodies to kill bacteria.

| Qn. <br> Nos. | Draw the diagram showing the internal structure of human ear. Label the <br> following parts : <br> i) $\quad$ Auditory nerve <br> ii) $\quad$ Ear drum. |
| :--- | :--- |

