CCE RR UNREVISED



ಕರ್ನಾಟಕ ಪ್ರೌಢ ಶಿಕ್ಷಣ ಪರೀಕ್ಷಾ ಮಂಡಳಿ, ಮಲ್ಲೇಶ್ವರಂ, ಬೆಂಗಳೂರು - 560 003

KARNATAKA SECONDARY EDUCATION EXAMINATION BOARD, MALLESWARAM, BANGALORE - 560 003

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

ಮಾದರಿ ಉತ್ತರಗಳು

MODEL ANSWERS

ದಿನಾಂಕ: 28. 09. 2020] ಸಂಕೇತ ಸಂಖ್ಯೆ: **83-E (Bio)**

Date: 28. 09. 2020] CODE NO.: 83-E (Bio)

ವಿಷಯ: ವಿಜ್ಞಾನ

Subject: SCIENCE

(ಜೀವಶಾಸ್ತ್ರ / Biology)

(ಹಳೆ ಪಠ್ಯಕ್ರಮ / Old Syllabus)

(ಪುನರಾವರ್ತಿತ ಶಾಲಾ ಅಭ್ಯರ್ಥಿ / Regular Repeater)

(ಇಂಗ್ಲಿಷ್ ಭಾಷಾಂತರ / English Version)

[ಗರಿಷ್ಠ ಅಂಕಗಳು : 80

[Max. Marks: 80

| Qn. Nos. | Va | alue Points | Total |
|-------------|---|--------------------|-------|
| 3. | The disease caused by human papiloma virus is | | |
| | (A) Birdflu | (B) Gonorrhoea | |
| | (C) Syphilis | (D) Genital warts. | |
| | Ans.: | | |
| | (D) Genital warts | | 1 |
| 6. | The hormone deficiency in a person suffering from goitre is | | |
| | (A) Parathormone | (B) Thyroxine | |
| | (C) Insulin | (D) Cortisone. | |
| | Ans.: | | |
| | (B) Thyroxin | | 1 |

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[Turn over

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

| Qn. Nos. | Value Points | Total |
|-------------|--|-------|
| | Mendal had the following advantages with pea plants. | |
| | ★ They can be grown easily in open ground or even in pots. | |
| | ★ They have a short growth period and life cycle | |
| | ★ They give selfpollinating flowers and also it is easy to conduct cross | |
| | pollination artificially | |
| | ★ They produce large number of seeds | |
| | ★ They show contrasting heritable characters | |
| | ★ They produce fertile hybrids on cross pollination. | |
| | (Any two) 	 1 + 1 | 2 |
| 26. | Suggest the measures to be followed to control the depletion of ozone layer. | |
| | Ans.: | |
| | ★ Making less use of refrigerators and cooling equipments | |
| | ★ Burning less fossil fuels | |
| | ★ Making less use of insulating foam | |
| | ★ Using more public transport vehicles like train and bus. | |
| | (Any two) 	 1 + 1 | 2 |
| 29. | 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.: | |
| | * Improves the growth rate | |
| | * Increases the production of milk, meat egg, wool and other products | |
| | ★ Improves the quality products | |
| | ★ Improves the resistance to diseases★ Increases the shelf life of productivity | |
| | ★ Increases the sate of reproduction. (Any two) 1 + 1 | |
| | (Consider other suitable answer) | 2 |
| | , , , , , , , , , , , , , , , , , , , | 4 |
| | OR | |
| | i) Selection of plants: Selecting the plants from a population of plants having desirable characteristics. | |
| | ii) <i>Hybridization</i> : 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. (Any two) 1 + 1 | 2 |

Qn.

Nos.

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Total

| 32. | Draw the diagram showing the structure of a dicot plant. Label the |
|-----|--|
| | following parts: |
| | 2) 171 |

Value Points

i) Flower

ii) Root.

Ans.:

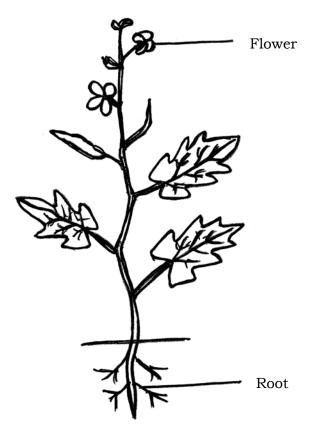


Diagram — 1

Parts — $\frac{1}{2} + \frac{1}{2}$

2

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

Ans.:

- ★ Developed stronger and straighter legs with feet suited more for walking.
- ★ Prehensile nature of the big toe was gradually lost.

RR (B)-1550 ***** (MA) (BIO)

| Qn. Nos. | | Value 1 | Points | Total |
|-------------|-------------|---|--|-------|
| | * | Upright posture was the result girdle and associated muscles. | of evolutionary changes in the pelvic | |
| | * | The pelvic girdle changed int support the trunk. | o a broad basin like structure to | |
| | * | Cerebrum showed considerable | enlargement. (Any four) $4 \times \frac{1}{2}$ | 2 |
| 36. | Wri | te any three differences between a | amphibians and reptiles. R | |
| | Wri plar | • | n vascular plants and non-vascular | |
| | Ans | 5. : | | |
| | | Amphibians | Reptiles | |
| | * | There is no exoskeleton, skin is smooth and moist | * Exoskeleton is in the form of epidermal scales forming distinct plates | |
| | * | The tail may be absent in adult stage | ★ In adult stage tail is present | |
| | * | Respiratory organs are gills in the larva and a pair of lungs in the adult. Skin also helps in respiration | * Respiratory organs are a pair of lungs | |
| | * | Nervous system has a brain, a spinal cord and ten pairs of cranial nerves | * Nervous system has a brain, a spinal cord and 12 pairs of cranial nerves | |
| | * | Fertilization and development both are external | ★ Fertilization is internal but development is external. | |

3

(Any three) 1 + 1 + 1

| Qn. Nos. | | Value 1 | Points | Total |
|-------------|---|---|---------------------------------------|-------|
| | | Vascular plants | Non-vascular plants | |
| | * | Xylem and phloem present | ★ Xylem and phloem absent | |
| | * | Vascular plants classified into | ★ Non-vascular plants classified | |
| | | ★ Pteridophytes | into | |
| | | * Gymnosperms | ★ Multicellular Algae | |
| | | * Angiosperms | * Bryophytes | |
| | * | Found in all kinds of Habitats | ★ Found in cold and humid | |
| | | | conditioned Habitats | |
| | * | Most of the plants have | ★ Most of the plants have | |
| | | definite root, stem, leaves | thalloid structure | |
| | | | (Any three) 1 + 1 + 1 | 3 |
| 39. | a) | Leaves of banana plant will tea | r easily by wind force but the midrib | |
| | | of the leaves do not tear. Why? | | |
| | b) | The body of a person is show | ring low immunity against bacterial | |
| | | infection. In which tissue there is a problem and how this tissue | | |
| | | protects our body? | | |
| | Ans | 5. : | | |
| | a) In leaves, thin walled parenchyma cells are arranged loosely. But in | | | |
| | midrib thick walled collenchyma with hemicellulose or pectin is | | | |
| | | present. | 1 | |
| | b) | ★ Lymph tissue | 1 | |
| | | * By producing antibodies to | kill bacteria. 1 | 3 |

| Qn. Nos. | Value Points | Total |
|-------------|---|-------|
| 42. | Draw the diagram showing the internal structure of human ear. Label the following parts: i) Auditory nerve ii) Ear drum. Ans.: | |
| | Eardrum Auditory nerve | |
| | Drawing — 3 Parts — $\frac{1}{2} + \frac{1}{2}$ | 4 |