Swotters Academy

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Test / Exam Name: Ch1 - Reproduction In Organisms **Standard: 12th Science** **Subject: Biology**

Student Name: ..... **Section:** ..... **Roll No.:** .....

Questions: 25 **Time: 01:45 hh:mm** **Marks: 50**

Instructions

1. Make sure to write in the point formation. You handwriting should be neat and clean
2. New section on new page
3. Honesty is the best policy.

SECTION-A

Q1. The statements given below describe certain features that are observed in the pistil of flowers: **1 Mark**

1. Pistil may have many carpels.
2. Each carpel may have more than one ovule.
3. Each carpel has only one ovule.
4. Pistil have only one carpel.

Choose the statements that are true from the options below,

A i and ii. **B** i and iii. **C** ii and iv. **D** iii and iv

Q2. Identify the incorrect statement: **1 Mark**

A In asexual reproduction, the offspring produced are morphologically and genetically identical to the parent.
B Zoospores are sexual reproductive structures.
C In asexual reproduction, a single parent produces offspring with or without the formation of gametes.
D Conidia are asexual structures in Penicillium.

Q3. Which of the following is a post-fertilisation event in flowering plants? **1 Mark**

A Transfer of pollen grains.
B Embryo development.
C Formation of flower.
D Formation of pollen grains.

Q4. Appearance of vegetative propagules from the nodes of plants such as sugarcane and ginger is mainly because: **1 Mark**

A Nodes are shorter than internodes.
B Nodes have meristematic cells.
C Nodes are located near the soil.
D Nodes have non-photosynthetic cells.

Q5. Given below are a few statements related to external fertilization. Choose the correct statements: **1 Mark**

1. The male and female gametes are formed and released simultaneously.
2. Only a few gametes are released into the medium.
3. Water is the medium in a majority of organisms exhibiting external fertilization.
4. Offspring formed as a result of external fertilization have better.

Chance of survival than those formed inside an organism,

A iii and iv. **B** i and iii. **C** ii and iv. **D** i and iv.

Q6. A few statements describing certain features of reproduction are given below: **1 Mark**

1. Gametic fusion takes place.
2. Transfer of genetic material takes place.
3. Reduction division takes place.
4. Progeny have some resemblance with parents.

Select the options that are true for both asexual and sexual reproduction from the options given below:

A i and ii. **B** ii and iii. **C** ii and iv. **D** i and iii.

Q7. There are various types of reproduction. The type of reproduction adopted by an organism depends on: **1 Mark**

A The habitat and morphology of the organism.
B Morphology of the organism..
C Morphology and physiology of the organism.
D The organism's habitat, physiology and genetic makeup

Q8. Amoeba and Yeast reproduce asexually by fission and budding respectively, because they are: **1 Mark**

A Microscopic organisms.
B Heterotrophic organisms.
C Unicellular organisms.
D Uninucleate organisms.

Q9. Mention two inherent characteristics of Amoeba and yeast that enable them to reproduce asexually. **1 Mark**

Q10. Rearrange the following events of sexual reproduction in the sequence in which they occur in a flowering plant: **1 Mark**
embryogenesis, fertilisation, gametogenesis, pollination.

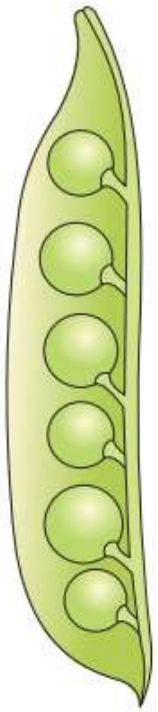
Q11. Although potato tuber is an underground part, it is considered as a stem. Give two reasons. **1 Mark**

SECTION-B

Q12. Is there a relationship between the size of an organism and its life span? Give two examples in support of your answer. **2 Marks**

Q13. Between an annual and a perennial plant, which one has a shorter juvenile phase? Give one reason. **2 Marks**

Q14. In the figure given below, mark the ovule and pericarp. **2 Marks**



Q15. Is the presence of large number of chromosomes in an organism a hindrance to sexual reproduction? Justify your answer by giving suitable reasons. **2 Marks**

Q16. Why do we refer to offspring formed by asexual method of reproduction as clones? **2 Marks**

Q17. What do the following parts of a flower develop into after fertilisation? **2 Marks**

1. Ovary _____.
2. Ovules _____.

Q18. The probability of fruit set in a self-pollinated bisexual flower of a plant is far greater than a dioecious plant. Explain. **2 Marks**

Q19. Is it possible to consider vegetative propagation observed in certain plants like Bryophyllum, water hyacinth, ginger etc., as a type of asexual reproduction? Give two/ three reasons. **3 Marks**

Q20. In haploid organisms that undergo sexual reproduction, name the stage in the life cycle when meiosis occurs. Give reasons for your answer. **3 Marks**

Q21. With which type of reproduction do we associate the reduction division? Analyse the reasons for it. **3 Marks**

Q22. List the changes observed in an angiosperm flower subsequent to pollination and fertilisation. **3 Marks**

SECTION-C

Q23. Match the organisms given in Column-'A' with the vegetative propagules given in column 'B'. **4 Marks**

	Col. A		Col. B
i.	Bryophyllum	a.	Offset
ii.	Agave	b.	Eyes
iii.	Potato	c.	Leaf buds
iv.	Water hyacinth	d.	Bulbils

Q24. Differentiate between, **4 Marks**
Ovipary and vivipary. Cite an example for each type.

Q25. Do all the gametes formed from a parent organism have the same genetic composition (identical DNA copies of the parental genome)? Analyse the situation with the background of gametogenesis and provide or give suitable explanation. **5 Marks**