



S.S. Divine School



Pre – Primary , Primary, Secondary & Higher Secondary

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Std: 12th (E.M)

Date:27/07/2022

Subject: Biology (056)

Roll No:

Time: 1 hour

Max. Marks:25

Part -A

Answer the following questions very briefly. (Each carries 1 mark)

(1)

The term 'clone' cannot be applied to offspring formed by sexual reproduction because :

- (A) Offspring do not possess exact copies of parental DNA
- (B) DNA of only one parent is copied and passed on to the offspring
- (C) Offspring are formed at different times
- (D) DNA of parent and offspring are completely different.

(2)

The number of chromosomes in the shoot tip cells of a maize plant is 20. The number of chromosomes in the microspore mother cells of the same plant shall be

- (A) 20
- (B) 10
- (C) 40
- (D) 15

(3)

Embryo sac is to ovule as is to an anther.

- (A) Stamen
- (B) Filament
- (C) Pollen grain
- (D) Androecium

(4)

Autogamy can occur in a chasmogamous flower if

- (A) Pollen matures before maturity of ovule
- (B) Ovules mature before maturity of pollen
- (C) Both pollen and ovules mature simultaneously
- (D) Both anther and stigma are of equal lengths.

(5)

Choose the incorrect statement from the following

- (A) In birds and mammals internal fertilisation takes place
- (B) Colostrum contains antibodies and nutrients
- (C) Polyspermy in mammals is prevented by the chemical changes in the egg surface
- (D) In the human female implantation occurs almost seven days after fertilisation

(6)

Which one of the following is not a male accessory gland ?

- (A) Seminal vesicle
- (C) Prostate

- (B) Ampulla
- (D) Bulbourethral gland

(7)

Match the following and choose the correct options:

Column - I		Column - II	
(A)	Trophoblast	(i)	Embedding of blastocyst in the endometrium
(B)	Cleavage	(ii)	Group of cells that would differentiate as embryo
(C)	Inner cell mass	(iii)	Outer layer of blastocyst attached to the endometrium
(D)	Implantation	(iv)	Mitotic division of zygote

- (A) (A - ii) (B - i) (C - iii) (D - iv)
- (C) (A - iii) (B - i) (C - ii) (D - iv)

- (B) (A - iii) (B - iv) (C - ii) (D - i)
- (D) (A - ii) (B - iv) (C - iii) (D - i)

(8)

Morula is a developmental stage

- (A) Between the zygote and blastocyst
- (C) After the implantation

- (B) Between the blastocyst and gastrula
- (D) Between implantation and parturition

(9)

There is no natural death in single celled organisms like Amoeba and bacteria because :

- (A) They cannot reproduce sexually
- (B) They reproduce by binary fission
- (C) Parental body is distributed among the offspring
- (D) They are microscopic

PART -B

Section-A

Answer the following questions (Each carries 2 marks)

(1)

Define external fertilisation. Mention its disadvantages.

(2)

What is meant by emasculation ? When and why does a plant breeder employ this technique ?

(3)

Draw a labelled diagram of sperm.

Section-B

Answer the following questions as directed (Each carries 3 marks)

(1)

Describe in detail about asexual reproduction in animals.

(2)

With a neat diagram explain the 7-celled, 8-nucleate nature of the female gametophyte.

Section -C

Answer the following question as directed. (Each carry 4 marks)

(1)

With a neat, labelled diagram describe the parts of a typical angiosperm ovule.

BEST OF LUCK