

Reproduction in Organisms

MULTIPLE CHOICE QUESTIONS

Topic

1

- **1.** Which one of the following is the correct statement with respect to life span of organisms?
 - (a) Mango tree has a much longer lifespan as compared to peepal tree
 - (b) Single celled organism doesn't show natural death
 - (c) Life span is correlated with complexity and habit of plant
 - (d) Parrot has a shorter lifespan as compared to crow
- 2. Asexual reproduction-
 - (a) Involvement of gamete formation
 - (b) Fusion of male & female gamete
 - (c) Without involvement of gamete formation
 - (d) Biparental (opposite sex)
- 3. Life span represents-
 - (a) Period from birth to natural death of an organism
 - (b) Period from birth to reproductive maturity of an organism
 - (c) Period from reproductive maturity to death of an organism
 - (d) Period from adolescence to senescent phase of an organism
- 4. Life span depends on-
 - (a) Size of organism (b) Shape of organism
 - (c) (a) and (b) both (d) None of these
- **5.** Arrange the following organisms on the basis of their ascending life span.
 - (a) Parrot, Crocodile, Crow, Butterfly
 - (b) Tortoise, Crocodile, Crow, Butterfly
 - (c) Butterfly, Crocodile, Parrot
 - (d) (a) and (b) both

Asexual Reproduction

- **6.** Choose most appropriate statement about water hyacinth.
 - (i) An aquatic plant that can propagate vegetatively at a phenomenal rate
 - (ii) Introduced in India because of beautiful flowers and shape of fruit
 - (iii) It reproduce by offset
 - (iv) It drains oxygen from water, which leads to death of fishes
 - (v) It spread all over the water body in a short period of time
 - (vi) It is very difficult to get rid off them
 - (vii) It is invasive weeds found growing wherever there is standing water
 - (a) i, ii, iii, iv, v, vii, vii
 - (b) i, iii, iv, v, vi, vii
 - (c) ii, iv, v, vi, vii
 - (d) None of these
- 7. Term 'vegetative reproduction' is frequently used in-
 - (a) Plants (b) Animals
 - (c) Monerans (d) (a) and (c) both
- 8. Banana is reproduced vegetatively by-
 - (a) Stolon (b) Runner
 - (c) Rhizome (d) Offset
- 9. 'Eyes' of Potato arise from-
 - (a) Node (b) Internode
 - (c) Both (a) and (b) (d) Root

- 10. Bryophyllum arise vegetatively by
 - (a) adventitious bud arise from notches present at leaves margin.
 - (b) adventitious bud arise from notches present at node.
 - (c) adventitious bud arise from notches present at internode.
 - (d) None of these
- 11. Arrange in sequence-
 - (i) Gamete transfer
 - (ii) Formation of gamete
 - (iii) Post-fertilization
 - (iv) Fertilization
 - (a) ii-i-iv-iii (b) i-iii-ii-iv
 - (c) iii-iv-ii-i (d) iv-i-iii-ii
- **12.** Choose the correct statement with respect to sexual reproduction:
 - (a) It involves formation of male & female gametes only by different individuals of the opposite sex.
 - (b) It is an elaborate, simple and slow process as compared to asexual reproduction.
 - (c) Zygotes are formed by fusion of gametes which develop to form the new organisms.
 - (d) All of these
- 13. Clone are
 - (a) Produced generally by sexual reproduction
 - (b) Individual genetically similar to parent
 - (c) Individual morphologically similar to parent
 - (d) (b) and (c) both $\left(c \right)$
- 14. Given below figure represent-



- (a) Binary fission in Amoeba
- (b) Budding in Amoeba
- (c) Budding in Yeast
- (d) Binary fission in Yeast

- **15.** Cell division is itself a mode of reproduction in-
 - (a) Protists (b) Moneran
 - (c) Fungi (d) (a) and (b) both
- 16. Zoospores is mode of asexual reproduction in-(a) *Chlamydomonas* (b) *Penicillium*
 - (a) Under (d) Spannes
 - (c) *Hydra* (d) Sponges
- 17. Choose the correct statement-
 - (a) Conidia of *Penicillium* is endogenous borne
 - (b) Gemmules of sponges is example of external budding
 - (c) In Yeast, the division is unequal and small buds are produced
 - (d) Zoospore is a non-motile structure.
- **18.** Match Column-I and Column-II and select correct option.

	Column I		Column II
(a)	Tuber	(i)	
(b)	Rhizome	(ii)	
(c)	Bulbil	(iii)	A



- (a) a-ii, b-iv, c-iii, d-v, e-i
- (b) a-ii, b-iv, c-v, d-iii, e-i
- (c) a-ii, b-iv, c-i, d-v, e-iii
- (d) None of these
- **19.** Which of the following is not meant for vegetative propagation in Angiospermic plants?
 - (a) Gemmules (b) Runner
 - (c) Bulb (d) Sucker

20. Vegetable propagation involve-

- (a) Single parent
- (b) Biparental
- (c) Zoospores
- (d) Reproduction by flower
- 21. Label A and B



	a	b
(a)	Eyes	Germinating eye buds
(b)	Germinating eye	Eyes bud
(c)	Buds	Adventitious root
(d)	Adventitious root	Buds

TopicSexual Reproduction2

- **22.** The period of growth where an organism is not nature for sexual reproduction is-
 - (a) Juvenile phase (b) Vegetative phase
 - (c) Both (a) and (b) (d) None of these
- 23. Choose incorrect statement among the following:
 - (a) In perennial species there is clear cut vegetative, reproductive and senescent phase.
 - (b) In annual & biennial species there is clear cut vegetative, reproductive & senescent phase.
 - (c) In perennial species it is very difficult to define vegetative, reproductive & senescent phase.
 - (d) (a) and (b) both
- 24. Neelakuranji flower blooms once in-
 - (a) 12 years (b) 12 months
 - (c) 12 days (d) 36 years
- **25.** Bamboo show flowering in
 - (a) 10-20 years (b) 50-100 years
 - (c) Once in every year (d) (b) and (c) both
- **26.** Choose correct statement about *Strobilanthus kunthiana*.
 - (a) This plant flowered during September-October 2006.
 - (b) Its mass flowering transformed large tracts of hilly areas in Kerala, Karnataka and Tamil Nadu into pink stretches.
 - (c) (a) and (b) both
 - (d) It flowers during April-May 2006.
- 27. Oestrus cycle is observed in-
 - (a) Primates (b) Non-primate
 - (c) Both (a) and (b) (d) Human beings
- **28.** Choose odd ones among following on the basis of hormonal changes in reproductive phase.
 - (a) Ape (b) Cow
 - (c) Deer (d) Tiger

- 29. Juvenile phase is related with all, except:
 - (a) It is pre-reproductive phase of an individual.
 - (b) It is of different durations in different organisms.
 - (c) It is period of vegetative growth.
 - (d) It involves appearance of flowers in higher plant.

Topic	Pre-fertilization Events				
2.1	Gametogenesis				

- 30. Isogametes present not in-
 - (a) Cladophora a fungi (b) Fucus an alga
 - (c) Human beings (d) All of these
- 31. The given figure is of-



- (a) Heterogametes of Human beings
- (b) Heterogametes of Fucus, a fungi
- (c) Homogamete of *Fucus*, an alga
- (d) None of these
- **32.** Choose the correct statement:
 - (a) The process of formation of two types of gametes is known as gametogenesis.
 - (b) In *Cladophora* the two gametes are so similar in appearance that it is not possible to categorise them into male & female gametes; such are known as heterogametes.
 - (c) The male and female morphological distinct types of gamete is character of *Fucus*.
 - (d) (a) & (c) both
- **33.** Plants which may have both male female reproductive structures in same pant is-

- (i) Bisexual(ii) Unisexual(iii) Monoecious(iv) Dioecious(a) i & iii(b) i & iv(c) ii & iii(d) ii & iv
- **34.** Staminate and pistillate flower borne on different plant, termed as-
 - (i) Bisexual
 (ii) Unisexual
 (iii) Monoecious
 (iv) Dioecious
 (a) i & iii
 (b) i & iv
 (c) iv & iii
 (d) iv & ii
- 35. Choose the odd one with respect to sexuality.
 - (a) Cucurbit (b) Cockroach
 - (d) *Chara* (d) None of these
- 36. How many of following is monoecious/bisexual-Papaya, Cucurbit, Datepalm, Cockroach, *Marchantia*, Earthworm, Sweet potato, *Chara*, Sponge, Tapeworm, Leech.
 - (a) 4 (b) 8 (c) 7
 - (c) 7 (d) 12
- 37. Which of the following is hermaphrodites?
 - (a) Cockroach (b) Capeworm
 - (c) Earthworm (d) Leech
 - (d) Both (c) & (d)
- **38.** Choose the correct statement:
 - (a) A diploid parent produces gametes by mitotic division
 - (b) A haploid parent produces gametes by mitotic division
 - (c) A haploid parent produces gametes by meiotic division
 - (d) Both (a) & (c)
- **39.** Monera, Fungi, algae and bryophytes parental plant body is-
 - (a) Same as in pteridophytes
 - (b) Haploid
 - (c) Diploid
 - (d) Both (a) & (b)
- 40. Meiocytes of human beings-
 - (a) Undergo meiosis for gamete formation
 - (b) Undergo mitosis only

- (c) Both (a) & (b)
- (d) None of these

41. Meiocytes have-

- (a) One set of chromosomes
- (b) Two set of chromosomes
- (c) Three set of chromosomes
- (d) All of these
- 42. Choose the correct response among following-
 - (a) The female sex organ of *Chara* is positioned above antheridium
 - (b) Testis sac of earthworm is positioned below its ovary
 - (c) Testis of cockroach is positioned above ovary of same cockroach individual.
 - (d) (a) and (b) both
- 43. Given diagram is of-



- (a) Bisexual flower of potato
- (b) Unisexual flower of sweet potato
- (c) Unisexual flower of potato
- (d) None of these
- **44.** Among the following maximum number of chromosome is in the meiocytes of-
 - (a) Rice (b) Maize
 - (c) Potato (d) Onion
- **45.** Arrange in ascending order, number of chromosomes in gamete-
 - (a) Housefly, Fruitfly, Maize, Cat
 - (b) Cat, Rat, Butterfly, Apple
 - (c) Onion, Rice, Rat, Ophioglossum
 - (d) Human, Potato, Dog, Butterfly

- 46. Ophioglossum is-
 - (a) Algae(b) Bryophytes(c) Pteridophyte(d) None of these
- 47. Find mismatched column.

Column-I	(Column-	·II	Column-III		
(Organism)	(C	hromoso	ome	(Chromosome		
	r	number	in	number in		
	1	neiocyt	e)	gamete)		
(a) Mai	ze	24	12			
(b) Onio	on	16	8			
(c) Dog	5	78	39			
(d) App	ole	34	17			

- 48. In bryophyte, pteridophyte gamete transfer need-
 - (a) Air (b) Water
 - (c) Biotic agent (d) None of these
- **49.** Choose the correct statement:
 - (a) In a majority of organisms, male gamete is stationary and female gamete is motile.
 - (b) A large number of male gametes liberated during gamete transfer to compensate the loss of male gamete during transport.
 - (c) In a majority of organisms, male gametes and female gametes are stationary.
 - (d) In majority of organism including human male gametes and female gametes are motile.
- 50. Pollen grains carries-
 - (a) Male gametes (b) Female gametes
 - (c) Meiocytes (d) (a) and (c) both
- 51. Pollen grains are produces in-
 - (a) Stigma (b) Carpel
 - (c) Anther (d) (b) and (c) both
- 52. Dioecious plants show-
 - (a) Self-pollination (b) Cross pollination
 - (c) (a) and (b) both (d) Autogamy
- 53. Which type of plants are peas?
 - (a) Self-fertilizing
 - (b) Bisexual
 - (c) (a) and (b) both
 - (d) Cross-pollination only

54. Pollination is-

- (a) Transfer of pollen grains from anther to stigma before it can lead to fertilization
- (b) Transfer of egg from female reproductive part to anther before it can lead to fertilization.
- (c) Transfer of pollen grains from androecium to anther before it can lead to fertilization
- (d) Essential steps during sexual reproduction of mammals
- 55. Most critical event in sexual reproduction is :
 - (a) Gametogenesis (b) Fertilization
 - (c) Gamete transfer (d) Embryogenesis

56.



(a) a = Fusion of gametes

b = Zygote

- c = New individuals
- (b) a = Parent organisms
 - b = Fusion of gametes
 - c = Zygote
- (c) a = Parent organisms
 - b = Fusion of gametes
 - c = Formation of two new individuals
- (d) a = Zygote
 - b = Fusion of gamete
 - c = New individual

TopicFertilization2.2

- 57. Choose the correct statement:
 - (I) Fusion of gametes is syngamy
 - (II) Formation of diploid zygote is result of fertilization
 - (III) Fusion of gametes is fertilization

- (a) I and II are correct, III is incorrect
- (b) II and III are correct, I is incorrect
- (c) I, II, and III are correct
- (d) I, III are correct, II is incorrect
- 58. Which bird of the following show parthenogenesis?
 - (a) Parrot (b) Turkey
 - (c) Ostrich (d) None of these
- 59. Parthenogenesis is-
 - (a) Development of new organism from male gamete only without fertilization
 - (b) Development of new organisms from both male and female gametes without fertilization
 - (c) Development of new organisms from unfertilized female gametes
 - (d) All of these
- **60.** From the given list of organisms, how man shows external fertilization and internal fertilization respectively?

Bryophytes, Algae, Pteridophytes, Gymnosperms, Angiosperm, Fungi, Reptiles, Birds, Mammals, Amphibians, Fishes.

- (a) 3, 8 (b) 5, 6
- (c) 6, 5 (d) None of these
- **61.** Choose incorrect statement about external fertilization:
 - (a) Release a large number of gametes into the surrounding media.
 - (b) The offspring resulted from external fertilization are extremely vulnerable to predators threatening their survival up to adulthood
 - (c) Amphibians of plant kingdom show external fertilization
 - (d) None of these
- **62.** Choose the correct statement regarding gametes involve in internal fertilization:
 - (a) Egg formed inside female body is motile structure.
 - (b) In seed plants, the non-motile male gametes are carried to female gametes.

- (c) There is significant increase in the number of female gametes.
- (d) Both male and female gametes are produced in equal numbers and both are motile.

Topic 2.3

Post-fertilization Events

- 63. Post-fertilization events involves-
 - (a) Formation of zygote
 - (b) Embryogenesis
 - (c) Gamete transfer
 - (d) Both (a) and (b)

Topic 2.3.1

The Zygote

- **64.** Which is universally occurring event during sexual reproduction?
 - (a) Pollination
 - (b) Endosperm formation
 - (c) Zygote formation
 - (d) All of these
- 65. Choose the correct statements:
 - (a) In some organisms of fungi and algae, zygote develop thin wall that is resistant to desiccation and damage.
 - (b) In haplontic life cycle, diploid spore is form after mitosis of zygote that lead to development of new individuals.
 - (c) Haploid spores are formed after meiosis in zygote that lead to development of new individuals during haplontic life cycle
 - (d) All of these

66. Connecting link between one generation to other generation is-

- (a) Gametes(b) Spores(c) Zygote(d) All of these
- 67. Life began as _____ in human beings.
 - (a) Zygote (b) Gametes
 - (c) Foetus (d) None of these

Embryogenesis

2.3.2

Topic

- 68. Embryogenesis is-
 - (a) Development of embryo from spore
 - (b) Development of embryo from zygote
 - (c) Development of embryo from gametes
 - (d) None of these
- 69. Embryogenesis involves-
 - (a) Meiosis and cell differentiation
 - (b) Mitosis and cell differentiation
 - (c) Cell division (Meiosis & Mitosis) and cell differentiation
 - (d) Cell division (Meiosis & Mitosis) only
- **70.** Statement-I : Cell divisions increase the number of cells in developing embryo.

Statement-II : Cell differentiation helps groups of cells to undergo certain modification to form specialized tissues and organ to form an organisms.

- (a) Statement-I and Statement-II are correct
- (b) Statement-I is correct while Statement-II is incorrect
- (c) Statement-I is incorrect while Statement-II is correct
- (d) Statement-I and Statement-II are incorrect.
- 71. In oviparous animals-
 - (a) Unfertilized eggs are laid in safe place in the environment
 - (b) Fertilized eggs are covered by hard calcareous shell
 - (c) Unfertilized eggs undergoes for incubation & hatching of new individual
 - (d) (a) and (b) both
- 72. Choose incorrect about viviparous:
 - (a) Zygote develops into young one inside body of female organism.
 - (b) Chance of survival is lesser than viviparous organism.

- (c) Change of survival of young ones of human is more than young ones of reptilians.
- (d) None of these
- 73. In flowering plant, zygote is formed inside-
 - (a) Ovule
 - (b) Stamen
 - (c) Stigma
 - (d) Embryo sac present in stamen
- 74. After fertilization, which of the following floral part does not wither and fall off in every plant?
 - (a) Calyx
 - (b) Corolla
 - (c) Androecium
 - (d) Gynoecium
- 75. Seed and fruit develop from-
 - (a) Ovary & Ovule respectively
 - (b) Ovule & Ovary respectively

- (c) Ovary & Ovary respectively
- (d) Ovule & Ovule respectively

76.



- (a) A = Seed B = Pericarp
- (b) A = Pericarp B = Seed
- (c) A = Pericarp B = Pericarp
- (d) A = Seed B = Seed

ANSWER KEY										
1. (c)	2. (c)	3. (a)	4. (d)	5. (c)	6. (b)	7. (a)	8. (c)	9. (a)	10. (a)	
11. (a)	12. (c)	13. (d)	14. (c)	15. (d)	16. (a)	17. (c)	18. (a)	19. (a)	20. (a)	
21. (a)	22. (c)	23. (a)	24. (a)	25. (b)	26. (a)	27. (b)	28. (a)	29. (d)	30. (d)	
31. (d)	32. (d)	33. (a)	34. (b)	35. (d)	36. (b)	37. (d)	38. (b)	39. (b)	40. (a)	
41. (b)	42. (a)	43. (d)	44. (c)	45. (d)	46. (c)	47. (a)	48. (b)	49. (b)	50. (a)	
51. (c)	52. (b)	53. (c)	54. (a)	55. (b)	56. (a)	57. (c)	58. (b)	59. (c)	60. (a)	
61. (c)	62. (b)	63. (d)	64. (c)	65. (c)	66. (c)	67. (a)	68. (b)	69. (b)	70. (a)	
71. (b)	72. (b)	73. (a)	74. (a)	75. (a)	76. (b)					