

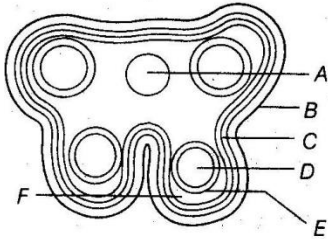
DAV PUBLIC SCHOOL, HUDCO, BHILAI

Multiple Choice Question

Class -XII BIOLOGY

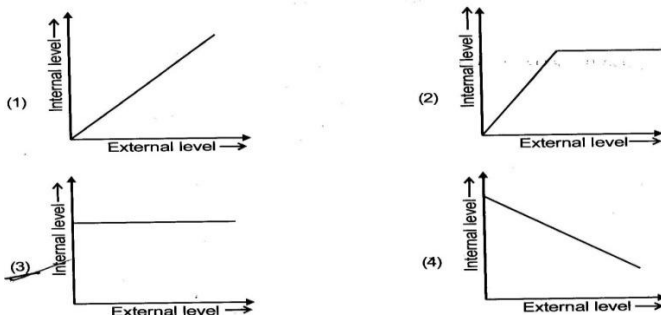
No of Question :50

1 Identify A to E in the following diagram.



- (A) A-Epidermis, B-Endodermis, C-Connective tissues, D-Sporogenous tissue, E-Middle layer, F-Tapetum
- (B) A-Endodermis, B-Connective tissue, C-Epidermis, D-Tapetum, E-Sporogenous tissue, F-Middle layer
- (C) A-Tapetum, B-Middle layer, C-Sporogenous tissue, D-connective tissues, E-Endodermis, F-Epidermis
- (D) A-Connective tissue, B-Epidermis, C-Endothecium, D-Sporogenous tissue, E-Tapetum, F-Middle layer

2. The outermost wall layer of microsporangium in anther is
(A) endothecium (B) tapetum (C) middle layer (D) epidermis
3. Dehiscence of anther in mesophytes is caused by
(A) hydration of anthers (B) dehydration of anthers
(C) mechanical injury (D) None of these
4. The sporopollenin is non egradable because
(A) it can withstand strong acids (B) it is resistant at very high temperature
(C) no enzyme degrade it (D) All of the above
5. Find out the correct diagrammatic representation of organismic response w.r.t. Regulators



6. Vital index of a population is represented as

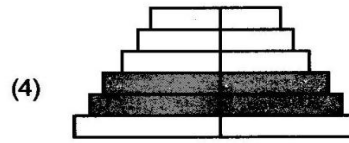
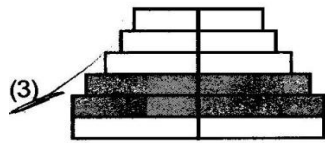
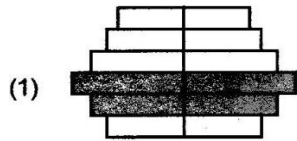
(A) $\frac{Natality}{Mortality} \times 100$

(B) $(Natality - Mortality) \times 100$

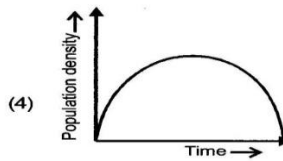
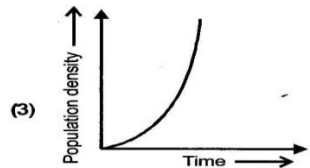
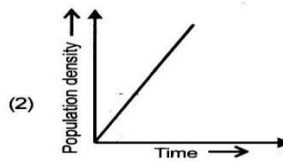
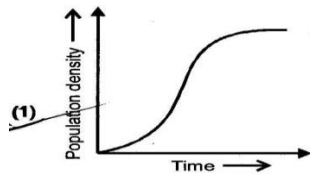
(C) $\frac{Mortality}{Natality} \times 100$

(D) $\frac{Natality}{100 \times Mortality}$

7. Which of the given age pyramid reflects a stable human population ?



8. Which of the following curve represents Verhulst Pearl Logistic growth in a population?



9. Succession stages that occur on rock is called

- (A) Hydrarch (B) Halosere (C) Lithosere (D) Hydrosere

10. What amount of carbon is fixed in the biosphere through photosynthesis annually?

- (A) $4 \times 10^{13} g$ (B) $3 \times 10^4 kg$ (C) $10^4 g$ (D) $4 \times 10^{13} kg$

11. What percentages of PAR can be captured by plants

- (A) 1-5% (B) 2-10% (C) 20% (D) 50%

12. Tree → Birds → Lice → Bacteria. Above food chain is

- (A) Predatory (B) Grazing (C) Detritus (D) Parasitic

13. Sigmoid growth curve is represented by

- (A) $dN / dt = rN$ (B) $dN / dt = rN(1 - N / K)$
 (C) $Nt = No + B + I - D - E$ (D) $dN / dt = 1 - N / K$

14. Certain characteristic demographic features of developing countries are

- (A) High fertility, low or rapidly falling mortality rate, rapid population growth and a very young age distribution

- (B) High fertility, high density, rapidly, rising mortality rate and a very young age distribution
- (C) High infant mortality, low fertility, uneven population growth and a very young age distribution
- (D) High mortality, high density, uneven population growth and a very old age distribution

15. What is a keystone species?

- (A) A species which makes up only a small proportion of the total biomass of a community, yet has a huge impact on the community's organization and survival
- (B) A common species that has plenty of biomass, yet has a fairly low impact on the community's organization
- (C) A rare species that has minimal impact on the biomass and on other species in the community
- (D) A dominant species that constitutes a large proportion of the biomass and which affects many other species

16. Which of the following is used as 'clot-buster' for removing clots from blood vessels of patient who have undergone myocardial infarction?

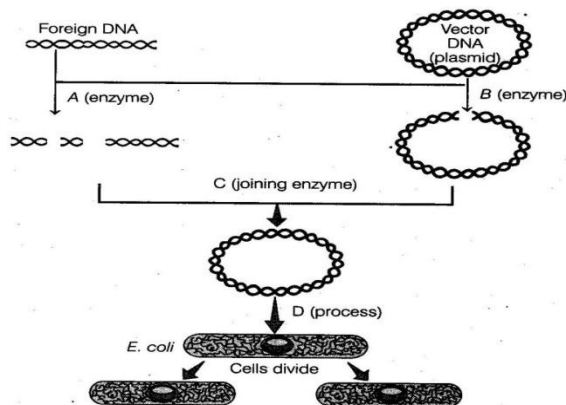
- (A) Ethanol
- (B) Statins
- (C) Cyclosporin-A
- (D) Streptokinase

17. Identify the blank spaces A, B, C and D given in the following table and select the correct answer.

Type of Microbes	Scientific Name	Commercial Product
Bacterium	A	Lactic acid
Fungus	B	Cyclosporin-A
C	<i>Monascus purpureus</i>	Statins
Fungus	<i>Penicillium notatum</i>	D

- (A) A- *Lactobacillus*, B- *Trichoderma polysporum*, C- Yeast, D- Penicillin
- (B) A- *Staphylococcus*, B- *Clostridium*, C- Yeast, D- Penicillin
- (C) A- *Lactobacillus*, B- *Microsporium*, C- Yeast, D- Penicillin
- (D) A- *Staphylococcus*, B- *Microsporium*, C- *Agaricus*, D- Penicillin

18. The flowchart given below represent the process of recombinant technology. Identify A to D process



- (A) A- Restriction endonuclease, B- Restriction exonuclease, C- RNA ligase, D- Transformation
- (B) A- Restriction endonuclease, B- Restriction endonuclease, C- DNA ligase, D- Transformation
- (C) A- Restriction exonuclease, B- Restriction endonuclease, C- DNA polymerase, D- Transduction
- (D) A- Restriction endonuclease, B- Restriction endonuclease, C- DNA polymerase, D- Transformation

19. During 'gene cloning' which is called a gene taxi?

(A) Vaccine (B) Plasmid (C) Bacteria (D) Protozoa

20. Which of the following is not a feature of the plasmids?

- (A) Circular structure (B) Transferable
(C) Single-stranded (D) Independent replication

21. The restriction enzyme responsible for the cleavage of following sequence is

5'-G-A-A-T-T-C-3'

3'-C-T-T-A-A-G-5'

- (A) Alu I (B) Bam HI (C) Hind II (D) Eco RI

22. Which of the following transgenic human protein product has been used to treat emphysema?

- (A) α -antitrypsin (B) α -1 globulin
(C) Cry IAb protein (D) Cry IIAc protein

23. Sonalika and Kalyan Sona are varieties of

- (A) Wheat (B) rice (C) millet (D) tobacco

24. Which of the following statements are false?

- I. Insulin for curing diabetes, used to be extracted from the pancreas of slaughtered pig and cattle.
II. Animal insulin is slightly different from the human insulin.
III. Animal insulin causes some undesirable side effects such as allergy
IV. Bacteria cannot be made to synthesise insulin from its gene because of the presence of introns.

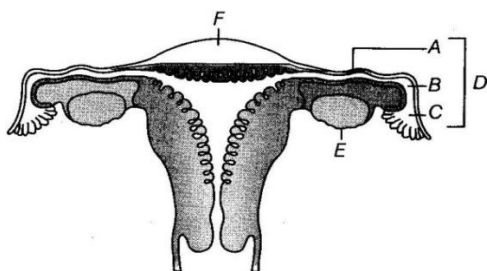
Choose the correct option

- (A) I, II and III (B) I, III and IV (C) II, III and IV (D) None of these

Which of the following rRNAs act as structural RNA as well as ribozyme in bacteria?

- (A) 5 srRNA (B) 18 srRNA (C) 23 srRNA (D) 5-8 srRNA

25. The following diagram refers to the female reproductive system of humans. Identify A to F.



- (A) A- Ampulla, B- Isthmus, C- Infundibulum, D- Fallopian tube, E- Ovary, F- Uterine fundus
(B) A- Isthmus, B- Infundibulum, C- Ampulla, D- Fallopian tube, E- Ovary, F- Uterine fundus
(C) A- Isthmus, B- Ampulla, C- Infundibulum, D- Fallopian tube, E- Ovary, F- Uterine fundus
(D) A- Ampulla, B- Infundibulum, C- Isthmus, D- Fallopian tube, E- Ovary, F - Uterine fundus

26. Assisted reproductive technology. IVF involves transfer of

- (A) ovum into the Fallopian tube (B) zygote into the Fallopian tube
(C) zygote into the uterus (D) embryo with 16 blastomeres into the Fallopian tube

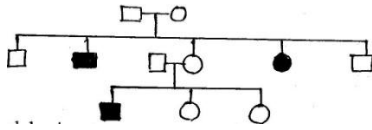
27. Single-celled animals are said to be immortal because

- (A) they grow indefinitely in size
 (B) they can tolerate any degree of change in temperature
 (C) they can reproduce throughout their life span
 (D) they continue to live as their daughter cells
28. Copper releasing IUDs are used for suppressing the
 (A) activity of ova (B) activity of the uterus
 (C) motility of the sperm (D) motility of ova
29. During which phase of the pregnancy MTP is safe?
 (A) 1st trimester (B) 2nd trimester (C) 3rd trimester (D) 4th trimester
30. Fusion of male and female gametes is called
 (A) syngamy (B) fertilisation (C) Both (A) and (B) (D) heterogamy
31. Which of the following statement is not true ?
 (A) Two organism with the same genotype have different phenotypes
 (B) Two organisms with the same phenotype have different genotype
 (C) A heterozygous organism has the same phenotype as a homozygous organism
 (D) A heterozygous organism has the same number of alleles for a given gene as a homozygous organism.
32. Which mendelian idea is depicted by a cross in which the F₁ generation resembles both parents?
 (A) In complete dominance (B) Law of dominance
 (C) Independent Assortment (D) Co- dominance
33. Mendelian ratio 9:3:3:1 is due to ?
 (A) Law of segregation (B) Law of purity of gametes
 (C) Law of independent assortment (D) Law of unit characters
34. In a dihybrid cross between AABB and aabb, the ratio of AABB : AABb : aaBb : aabb in F₂ generation is ?
 (A) 9:3:3:1 (B) 1:1:1:1 (C) 1:2:2:1 (D) 1:1:2:2
35. Henking observed 'X- body' in
 (A) All sperms during spermatogenesis (B) All eggs during oogenesis
 (C) Half sperm during spermatogenesis (D) Half eggs during oogenesis
36. Which of the following condition will form intersex Drosophila?
 (A) 2 Autosomes and 2 X Chromosomes (B) 3 set Autosomes and 1 X- Chromosome
 (C) 3 set Autosome and 2X- Chromosomes (D) 3set Autosomes and 3X-Chromosomes
37. If both parents are carrier for thalassemia then what are the chances of progeny suffering from thalassemia ?
 (A) Zero (B) 25% (C) 50% (D) 100 %
38. In a octoploid (8n) cell, chromosome number is 72 then find linkage group value?
 (A) 8 (B) 5 (C) 9 (D) 10
39. Klinefelter syndrome has chromosome arrangement?

40. ZZ-ZW type of sex-determination is found in –

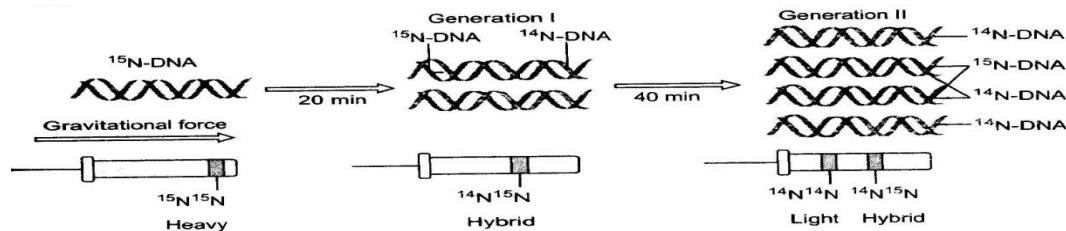
- (A) Platypus (B) Grass hopper (C) Peacock (D) Elephant

41. The given pedigree chart show the inheritance of which of the following mendalian disorder?



- (A) Sex- linked dominant (B) Autosomal dominant
(C) Sex-linked recessive (D) Autosomal recessive

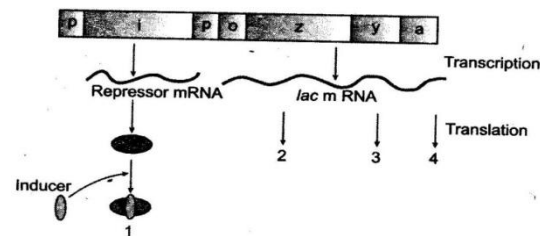
42. A heavy DNA ($^{15}\text{N} - ^{15}\text{N}$) of E. coli is allowed to replicate in ^{14}N medium for 80 minutes. What would be the proportion of light ($^{14}\text{N} - ^{14}\text{N}$) and hybrid density of DNA ($^{14}\text{N} - ^{15}\text{N}$) molecules?



- (A) 50 : 50% (B) 75 : 25% (C) 87.5 : 12.5% (D) All hybrid DNA

(A) A –translation B- extension C- Rosalind Franklin

43. Choose the correct option for 1,2,3 and 4



- (A) 1-Inactive repressor, 2o Permease, 3- Transacetylase, 4- β -Galactosidase,
(B) 1- Inactive repressor, 2- Transacetylase, 3- Permease, 4- β Galactosidase,
(C) 1- β Galactorsidase, 2-Inactive repressor, 3-Permease, 4-Transacetylase
(D) 1-Inactive repressor, 2- β -Galactosidase, 3- Permease, 4- Transacetylase

44.. Match the column :

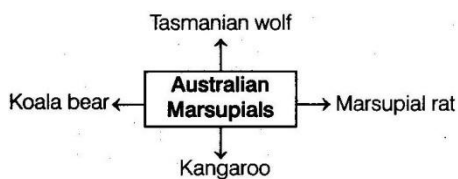
Column I

Column-II

- | | |
|---------------------|--------------------------------|
| 1. 5' AUG 3' | A. tRNA |
| 2. Regulator gene | B. Lagging strand |
| 3. Anticodon | C. Unwinding of DNA |
| 4. Okazaki fragment | D. Initiation condon |
| 5. Gyrase | E. Code for repressor molecule |
- (A) 1-E, 2-D, 3-A, 4-B, 5-C (B) 1-D, 2-E, 3-A, 4-C, 5-B
(C) 1-D, 2-E, 3-A, 4-B, 5-C (D) 1-D, 2-A, 3-E, 4-B, 5-C

45. Which of the following viruses is not transferred through semen of an infected male?
 (A) Hepatitis-B virus (B) Human immunodeficiency virus
 (C) Chikungunya virus (D) Ebola virus
46. The eyes of Octopus and eyes of cat show different patterns of structure, yet they perform similar function. This is an example of
 (A) homologous organs that have evolved due to convergent evolution
 (B) homologous organs that have evolved due to divergent evolution
 (C) analogous organs that have evolved due to convergent evolution
 (D) analogous organs that have evolved due to divergent evolution
47. According to Darwin, the organic evolution is due to
 (A) intraspecific competition
 (B) interspecific competition
 (C) competition within closely related species
 (D) reduced feeding efficiency in one species due to the presence of interfering species
48. In Hardy- Weinberg equation, the frequency of heterozygous individual is represented by
 (A) p^2 (B) $2pq$ (C) pq (D) q^2
49. What was the most significant trend in the evolution of modern man (Homo sapiens) from his ancestors?
 (A) Shortening of jaws (B) Binocular vision
 (C) Increasing brain capacity (D) Upright posture

50. Identify what the given diagram indicates?



- (A) Convergent evolution (B) Divergent evolution (C) Recapitulation
 (D) Parallel evolution

DAV PUBLIC SCHOOL , GEVRA PROJECT

Class : XII

Question Bank 2019-20

BIOLOGY

Q1.-----produces the enzymes , used at clot buster.

Q2.Which of the following would necessarily decrease the density of the population in a given habitat?

a. Natality >Mortality

b. Imigration >Emigration

c. Mortality and Emigration

d .Natality and Imigration

Q3.Zooplanktons enter -----,a state of suspended development under favourable conditions.

Q4.Name an alga that reproduces asexually through zoospores .Why are these reproductive units so called?

Q5.What happens to the endosperm in seed like Castor ?

Q6.Name the part of the flower that contributes to fruit formation in strawberry and guava respectively.

Q7.Occurence of more than one embryo in a seed , is known as-----.

Q8.Match the terms in column1 with column2

COLUMN1

COLUMN2

a. Pericarp
grasses

1.cotyledon in seeds of

b.Pollen grains of VALLISNERIA

2.Remains of nucellus in a seed

C.Perisperm

3.Mucilaginous covering .

d.Scutellum

4.Wall of the true fruit.

Q9.Most common honeybee species in India

a.Apis indica

b.Apis florae

c.Apis mellifera

d.Apis dorsa

Q10.Why is the middle piece of human sperm considered as 'Power house of the sperm'?

Q11.----- refers to the onset of menstruation at puberty.

Q12.Name an organism where cell divison is itself a mode of reproduction.

Q13.What is the principal behind the barrier methods of birth control?

Q14. Expand GIFT and ICSI.

Q15.On what basics is the skin colour in humans considered polligenic?

Q16.Match the items of column 1 to column 2

COLUMN1

COLUMN2

a.rosie

1.Polio vaccine safety

b.Ti plasmid

2.Human alphasalalbumin

c.RNAi

3.Agrobacterium Tumefaciens

d.ELISA

4.Meloidegyne incognitia

e.Transgenic mice

5.Antigen-antibody interaction

Q17.The technique of DNA finger printing was developed by

a.Hershey and Chase

b.Jacob and Monod

c.Alec Jeffreys

d.US department of energy

Q18.Outcrossing,inbreeding,inter-specific hybridisation,cross breeding.Mark the odd one out.

Q19.Which of the following is not required for a PCR reaction?

a.Primers

b.ddNTPs

c.Template DNA

D. A themostable DNA polymerase

Q20.Why is Gambusia introduced into drains and ponds?

Q21.What role do macrophages play in providing immunity to humans?

Q22.The two strands of DNA are

a. Similar in nature and complementary

b. Antiparallel and complementary

c. Basically different in nature

d. Parallel and complementary

Q23. How many base pairs would a DNA segment of length 1.36mm have?

Q24. How does the flow of genetic information in HIV deviate from the 'Central Dogma' proposed by Francis Crick?

Q25. ABO blood grouping is controlled by a gene I, whose three alleles are I^A, I^B and i. This is because of

1. Codominance

2. Multiple allelism

3. Dominance

4. Segregation

Choose the correct option:

a. (1) and (3)

b. (1) and (2)

c. (3) and (4)

d. (2) and (4)

Q26. The statutory ban on ----- is to legally check the female foeticide

Q27. Name the specific components of the linkages between them that form deoxyguanosine.

Q28. Which of the following sets of codons contains only termination codons?

a. UAA, UGA, UAG

b. UAA, UUU, UGG

c. UAA, UAG, UAC

d. UUU, UCC, UGG

Q29. Name two basic amino acids that provide positive charge to histone proteins.

Q30. The human chromosomes with the highest and least number of genes in them are respectively

a. Chromosome 21 and Y

b. Chromosome 1 and X

c. Chromosome 1 and Y

d. Chromosome X and Y

Q31. Mention the contribution of genetic maps in human genome project.

Q32. If the frequency of a parental form is higher than 25% in a dihybrid test cross. What does that indicate about the two genes involved?

Q33. Bird flu is a ----- disease.

Q34. Continuous inbreeding in animals is known to cause 'inbreeding depression'. State one reason why is it still practised?

Q35. IgM is a part of primary immune response or secondary immune response. Give answer.

Q36. What do you understand by the term monosomic condition?

Q37. Why is a plant with genotype Tt referred to as heterozygous?

Q38. ----- test is performed to confirm Typhoid.

Q39. Match the items of column 1 to column 2

COLUMN 1

COLUMN 2

(Variety of crop)

(resistant to)

a. Pusa komal of cowpea

1. hill bunt

b. Pusa swarnim of Brassica

2. blackrot and curl blight

c. Pusa shubhra of cauliflower

3. Bacterial blight

d. Himgiri of wheat

4. white rust

Q40. Which human protein is used to treat emphysema?

Q41. Mention the factors that determine the water holding capacity of soil.

Q42. Why Western Ghats in India have been declared as biological hotspot?

Q43. Mention how do bears escape from stressful time in winter.

Q44. Name the transcriptionally active region of chromatin in a nucleus.

Q45. The recent introduction of *Clarias gariepinus* is posing a threat to our indigenous ----- in our rivers

DAV PS, Chhal

Biology (044)

1. _____ is the transcriptionally active region of chromatin in a nucleus?
2. _____ is the direction in which DNA polymerase synthesises the polynucleotide.
3. The term gene was used by-
a)Johannsen b)Mendel c)Lemmark d)Cuvier.
4. Wilkins X-ray diffraction showed the diameter of the helix as-
a)10A b)20A c)30A d)40)
5. Triploid tissues in angiosperm is –
a)Nucellus b)Endosperm c) Endothecium d) Tapetum.
- 5.The outermost layer of maize endosperm is known as-
a)Perisperm b)Aleurone c) Tapetum d)Endothecium.
- 6.Match the coloum-
a.Head i.Enzymes
b.Middle piece ii)Sperm motility
c.Acrosome iii)Energy
d.Tail iv)Genetic material
- 7.Which one is not male accessory gland?
a)Seminal vesical b)Ampulla c)Prostate d)Bulbourethral gland.
- 8.The period between the fertilization & birth is called_____.
- 9.Ovulatoin is induced by a hormone termed as_____.
- 10.Matured follicals are termed as_____.
- 11.Each gametes has only _____ factors of the pair.
- 12.Crossing over occurs in _____ of prophase-1 in meiosis.
- 13.In bacteria,regulation of gene expression is usually effected through_____.
- 14.Phages infect the _____ cells.
- 15._____ is the missing link between birds and reptiles.
- 16.Evolutionary history of an organism is called _____.
- 17.In vegetative propagation , characters of parent plants are_____.
- 18.The exine of pollen grains is made up of a complex substance called _____.
- 19._____ is the technique is used to know the sex of developing foetus.
- 20._____ involves the transfer of embryo at 8-celled stage in the fallopian tube of female.
- 21.Match the coloum-
a)the pills i)Prevents sperm from reaching cervix.
b)Condoms ii)Prevents implantation.
c)Vasectomy iii)Prevents ovulation.
d)Copper-t iv)Semen contains no sperms.
- 22.Match the coloum.
a)Saltation
i)Darwin
b)Formation of life was preceded by chemical evolution ii)Louis Pasteur
c)Reproductive fitness iii)de-Vries
d)Life comes from pre-exisiting life iv)Oparin & Haldane
23. Match the coloum.
i)Funicle a)Small opening of ovule.
ii)Integuments b)Stalk of ovule.
iii)Chalazal c)Protective envelops of ovules
iv)Hilum d)Junction part of the ovule& stalk.
v)Micropyle e)Basal part of the ovule.

24. The entry of pollen tube into the ovule through micropyle is called.
 a) Porogamy b) Mesogamy c) Anisogamy d) Chalazogamy.
25. Sex-chromosomes of a female bird are represented by-
 a) XO b) XX c) XY d) ZZ e) ZW.
26. Progesterone falls during.
 a) Lactation b) Menopause c) Gestation d) Menstruation.
27. Ovulation occurred on the day of menstrual cycle.
 a) 8-10 b) 12-14 c) 14-16 d) Last two days of menstrual cycle.
28. Cessation of menstrual cycle in a woman is called.
 a) Ovulation b) Menarch c) Parturition d) Menopause.
29. The function of copper-T is to prevent.
 a) Fertilization b) Egg maturation c) Ovulation d) Implantation of blastocyst.
30. Which one of the following causes abortion in ladies.
 a) Virus b) Bacteria c) Mycoplasma d) none of these.
31. Phenotypic ratio in Snapdragon in F-2 is.
 a) 1:1 b) 2:1 c) 3:1 d) 1:2:1
32. The loss of a chromosomal segment is due to.
 a) Polypoidy b) Deletion c) Duplication d) Inversion e) Transversion.
33. Mutation can be introduced with.
 a) Infra red radiation b) IAA c) Ethylene d) Gamma rays.
34. Match the colour.
 a) UUU i) Serine
 b) GGG ii) Methionine
 c) UCU iii) Phenylalanine
 d) CCC iv) Glycine
 e) AUG v) Proline.
35. The process of removal of introns and joining of exons is called.
 a) Capping b) Tailing c) Termination d) Splicing.
35. DNA element which has the ability to change position is called.
 A) Cistron B) Introns C) Codons D) Anticodons.
36. DNA nucleotides are attached by.
 a) Hydrogen bond b) Covalent bond c) Van der Waals bonds d) Electrovalent bond.
37. Match the column.
 a) Darwin i) abiogenesis
 b) Oparin ii) use and disuse of organs
 c) Lamarck iii) continental drift theory
 d) Wager iv) evolution by natural selection.
38. The closest relative of modern man is considered to be.
 a) Orangutan b) Gibbon c) Chimpanzee d) Gorilla.
39. First life on earth were.
 a) Autotrophs b) Cyanobacteria c) Photoautotrophs d) Chemoautotrophs
40. Mutation theory does not explain.
 a) Mimicry b) Connecting links c) Adaptive Radiation d) Origin of new species.
41. External budding occurs in _____ while internal budding occurs in _____.
42. Pseudomycelium is formed in _____.
43. In an _____ fruits, each free carpel develops interdependently to form a bunch of fruits.
44. Inside ovary, ovules develop from a special tissue called _____.
45. Embryonic membranes are formed from _____ of blastula.
46. The process which transforms zygote to blastula is called _____.
47. _____ & _____ are sexually transmitted diseases.
48. In incomplete dominance one allele is not fully _____ over the other.
49. The various forms of a gene are called _____.

Monnet DAV Raigarh

QUESTION BANK

BIOLOGY

CLASS-XII

1. Tick the correct option-

- a. After the release of secondary oocyte, the Graafian follicle develops into
 - i. Corpus callosum
 - ii. Corpus albicans
 - iii. Corpus luteum
 - iv. Primary follicle
- b. In *lac* operon of E.coli, the *i* gene codes for
 - i. inducer
 - ii. repressor
 - iii. lactase
 - iv. β – galactosidase
- c. Biolistics is suitable for-
 - i. introducing rDNA into plant cell
 - ii. introducing rDNA into animal cell
 - iii. disarming the pathogen vector
 - iv. DNA fingerprinting
- d. Which of the following is a pioneer species in xerarch succession?
 - i. Phtoplanktones
 - ii. Lichen
 - iii. Bryophytes
 - iv. Sedges
- e. Which of the following is conformer with respect to homeostasis?
 - i. Tiger
 - ii. Whale
 - iii. Frog
 - iv. Dog
- f. The enzyme which catalyses the removal of nucleotide from the ends of DNA stand is
 - i. DNA ligase
 - ii. EcoRI
 - iii. Exonuclease
 - iv. Hind II
- g. The codon for valine that replaces glutamic acid in the haemoglobin and leads to sickle cell anaemia
 - I. AUG
 - II. GUG
 - III. GAG
 - IV. GGU
- h. If the heterozygous tall pea plant is self- pollinated, what proportion of the progeny would be homozygous
 - i. 25%
 - ii. 50%
 - iii. 75%
 - iv. 100%
- j. *Bacillus thuringiensis* is used to control
 - i. Fungal pathogen
 - ii. Nematodes
 - iii. Bacterial pathogen
 - iv. Insect pests

2. Fill in the blanks

- a. Plasmodium enters in the human body as.....

- b. Barriers protect the non-infected cells from further viral infections
- c. Occurance of more than one embryo in a seed, is known as.....
- d. The exine of pollen grains is made up of.....
- e. The In a vector helps in identifying the transformates and eliminating the non-transformates.
- f. Of human insulin is removed during maturation process.
- g. is the filarial worm.
- h. Evolution leads to homologous organs.
- i. During splicing in eukaryotes the..... are jointed to form the RNA
- j. Is used as cloning vector for transformation in plant cells.

3. Answer the following questions.

- a. Write the name of the organism that is referred as the “terror of Bengal”
- b. Name the type of pollination in self – incompatible plants?
- c. Name the two hormones found in the blood of a pregnant female only?
- d. Which codon have dual function?
- e. What is cistron?
- f. Expand the term VNTR?
- g. Write the central dogma of molecular biology as proposed by crick?
- h. What is meant by green house effects?
- i. What is the objective of Ramasar convention?
- j. What is recombinant protein?
- k. What is ZIFT?
- l. What is genetic drift?
- m. Why is the pyramid of plasmid always upright?
- n. Where are UTRs located?
- o. What is eutrophication?
- p. Why are bottled fruit juices cleaner than the juices prepared at home?
- q. What is trisomy?
- r. Mention two advantages of mycorrhizae ?
- s. Define biopiracy?
- t. Give one example of coextinction?

ANSWER KEY

Class- XII

- 1. (a) Corpus Luteum
- (b) Repressor
- (c) Introducing rDNA into plant cell
- (d) Lichen
- (e) Frog
- (f) Exonuclease
- (g) GUG
- (h) 50%
- (j) Insect pests
- 2. (a) Sporozoit
- (b) Cytokinin
- (c) Polyembryony
- (d) Sporopollenin
- (e) Selectable markers

- (f) C-Peptide
 - (g) Woucheria
 - (h) Divergent
 - (i) Exons
 - (j) Agrobacterium
- 3.
- (a) Water hyacinth
 - (b) Crosspollination
 - (c) Relaxin, GRH
 - (d) AUG
 - (e) Coded DNA segments
 - (f) Variable number Tandem repeats
 - (g) DNA→RNA→Protein
 - (h) Process by which radiations from atmosphere warms the planet's surface.
 - (i) To halt the worldwide loss of wetlands and conserve through wise use and management.
 - (j) Is a protein encoded by a gene – recombinant DNA
 - (k) Zygote intra fallopian tube.
 - (l) It is the change in the frequency of an existing gene variant in a population due to random sampling of organisms.
 - (m) Because the distribution of energy is always reducing as the trophic level becomes higher.
 - (n) Before starting codon and after stop codon.
 - (o) When the water body becomes overly enriched with minerals which induces excessive growth of algae.
 - (p) By use of pectinases and protease.
 - (q) Down's syndrome.
 - (r) Fungus absorbs nutrient and water for plant. And plant gives shelter to the fungus
 - (s) Unauthorized use of bio resource by multinational companies.
 - (t) Any suitable example.

DAV PS, CHIRIMIRI

XII-BIOLOGY

1 marks MCQ questions

1. Development of fruit without fertilization is called.
 - a) Cell division
 - b) cell culture
 - c) parthenocarpy
 - d) parthenogenesis
2. The transfer of pollen grain from anther to stigma of another flower of same plant is called as
 - a) Geitonogamy
 - b) xenogamy
 - c) cleistogamy
 - d) chasmogamy
3. During microsporogenesis meiosis occurs in
 - a) Endothecium
 - b) MMC
 - c) microspore tetrad
 - d) pollen grain
4. In an embryo sac, the cells that degenerate after fertilization are
 - a) synergids and primary endosperm cell
 - b) synergid and antipodal cell
 - c) antipodal and primary endosperm cell
 - d) Egg and antipodal cell
5. Testosterone is secreted by:
 - a) Mast cell
 - b) sertoli cells
 - c) kupffer cells
 - d) leydig cells
6. secondary spermatocyte are
 - a) Haploid
 - b) Diploid
 - c) Triploid
 - d) Haploid and Diploid
7. The test tube baby programme employs which one of the following techniques.
 - a) ICSI
 - b) IUI

- (a) Natural selection (b) induced mutations
 (c) Geographical isolation (d) reproductive isolation
43. Stanley miller proposed origin of life by :
 (a) Chemical synthesis (b) abiogenesis
 (c) Biogenesis (d) none of these
44. One of the following is not the casual organism for ringworm :
 (a) microsporium (b) trichophyton
 (c) epidermophyton (d) macrosporium
45. which one of the following is a matching pair of a drug and its category :
 (a) Amphetamines –stimulant (b) LSD –narcotic
 (c) Heroin – psychotropic (d) benzodiazepam –pain killer
46. Passive immunity can be obtained through :
 (a) Antigens (b) vaccines
 (c) Antibiotics (d) antibodies
47. which of the following is a variety of Himgiri ?
 (a) chilli (b) cowpea
 (c) Cauliflower (d) wheat
48. Which of the following is produced by genetically –engineered bacteria ?
 (a) thyroxine (b) insulin
 (c) Glucagon (d) ADH
49. 'YAC 'refers to :
 (a) Yeast artificial cell. (b) Yeast artificial chromosomes.
 (c) Yeast artificial colony. (d) None of the above
50. Which is referred to as “lungs of the planet earth “ :
 (a) Western ghats (b) lake Victoria
 (c) Greenland (d) amazon rainforest (d) Himalayas

ANSWER KEY-1.

c	2.a	3.b	4.b	5.d	6.a	7.d	8.b	9.c	10.c	11.a	12.b		
13.a	14.b	15.d	16.b	17.c	18.b	19.d	20.c	21.a	22.d	23.c	24.d	25.a	26.d
27.a	28.b	29.b	30.b	31.d	32.b	33.b	34.c	35.c	36.c	37.d	38.d	39.b	40.c
41.b	42.a	43.b	44.d	45.a	46.d	47.d	48.b	49.b	50.d				

D.A.V. PUBLIC SCHOOL, BISHRAMPUR
 CLASS 12 (BIOLOGY)

1. Mycorrhiza is an example of –
 (a) commensalisms
 (b) mutualism
 (c) algal associated with fungi
 (d) fungi associated with higher plants
2. Gene therapy can be used to correct one of the following –
 (a) defective ada
 (b) lack of b-lymphocytes
 (c) defective immunoglobulin
 (d) lack of t-lymphocytes
3. An inverted pyramid of biomass is represented by-
 (a) aquatic ecosystem
 (b) ecosystem of a big tree
 (c) grassland ecosystem
 (d) tropical fresh ecosystem

4. Non coding sequences present within a gene is called-
 - (a) exon
 - (b) intron
 - (c) promoter
 - (d) operon
5. To analyse the genotype of an organism , it is made to
 - (a) self cross
 - (b) cross with recessive parent
 - (c) cross with dominant parent
 - (d) cross with another species
6. Name the most invasive aquatic plant weed which is called as "terror of bengal".
7. How does zygote usually differ from zoospore in terms of ploidy?
8. Which characteristic property of bryophyllum is exploited by gardeners and farmers?
9. What represents the life span of an organism?
10. Which individuals can be termed as clones?
11. How will you grow a banana and a ginger plant?
12. Why are pollen grains produced in enormous quantity in maize?
13. Give the scientific name of a plant which came to india as a contaminant with imported wheat and causes pollen allergy.
14. Pollen grains of water pollinated species have a special characteristic for protection from water . What is that?
15. In some species of asteraceae and grasses , seed are formed without fusion of gametes. Mention the scientific term for such form of reproduction.
16. What is funiculus?
17. Failure of testes to descend into scrotal sacs lead to sterility. Why?
18. Both vaccine and colostrum produce immunity. Name type of immunity produced by these.
19. Where do we find fimbriae?
20. What is semen?
21. At what stage is the mammalian embryo implanted in uterus?
22. Where does fertilization normally takes place in a human female?
23. Give the term for rapid population growth.
24. Name the fluid from which foetal cells are extracted for chromosomal analysis.
25. Give technical name of female used to bring up in vitro fertilized egg to maturity.
26. Name any one plant that shows the phenomenon of incomplete dominance during the inheritance of its flower color.

27. What genetic principle could be derived from a monohybrid cross?
28. What is a test cross?
29. Mention the function of non histone protien?
30. Rna viruses mutate and evolve faster other than viruses. Why?
31. Name one fish like reptile that evolved from land reptile about 200 million years ago?
32. Name any two vestigial organs found in human body?
33. Name the pathogen which causes malignant malaria.
34. Breast fed babies are more immune to diseases than the bottle fed babies . Why?
35. Which product of apiculture is used in cosmetics and polishes?
36. Semi – dwarf varieties of a crop plant were derived from ir-8. Name that crop?
37. Give an example where mutation breeding has been succesfully carried out for introducing disease resistance .
38. Name two common ly used vectors in genetic engineering.
39. Some enzymes are considered as molecular scissors i n genetic engineering. What is the name assigned to such enzymes?
40. Which nematode infects the roots of tobacco plant and causes a great reduction in yield?
41. Name two pest resistant plants produced by using recombinant dna technology.
42. With which population growth model is the verhulst pearl equation associated?
43. fresh water animals are unable to survive for long in sea water. Give reason.
44. Which metabolic process causes a reduction in the gross primary productivity?
45. Habitat loss and fragmentation has caused severe damage to a particular type of ecosystem. Name it.

DAV PS, PANDAVPARA

OBJECTIVE TYPE QUESTIONS : 2019-20 BILOGY CLASS-XII

FILL IN THE BLANKS

1. Zygote divides to form _____ which is implanted in uterus.

Answer- blastomers

2. The structure which provides vascular connection between foetus and uterus called _____

Answer- Placenta .

3. Menstrual cycle ceases during _____ .

Answer- pregnancy

4. _____ helps in regulating passage of sperms into the female uterus.

Answer-Cervix.

5. Sertoli cells are found in _____ of testis.

Answer- seminiferous tubule.

6. Fusion of male and female gamete result in the formation of diploid zygote know as _____.

Answer- syngamy.

7. Embryogenesis involve two process _____ and _____

Answer – cell division and cell differentiation.

8. _____ methods work on the principle of avoiding the chances of mating of ovum and sperm.

Answer- Barrier.

9. Day _____ of the menstrual cycle are called fertile period.

Answer- 10-17

10. Embryo with more than 32 blastomeres is transferred into the _____.

Answer- Uterus.

11. The function of pericarp is to provide _____.

Answer – Protection

12. Formation of gametes is known as _____.

Answer – Gametogenesis.

13. Sonalika and kalyansona are varieties of _____.

Answer- Wheat.

14. Inbreeding is carried out in animal husbandary because it increases

Answer-Homozygosity.

15. An abnormal human male genotype involving extra X – chromosome is the case of _____ syndrome.

Answer- Klinefelter's (XXY)

16. Chromosome theory was proposed by _____.

Answer- Sutton and Boveri

17. Monosomy and trisomy conditions are respectively _____ and _____.

Answer- $2n-1$, $2n+1$

18. Cell-mediated immunity inside the human body is carried out by _____.

Answer- T-lymphocyte

19. Shape of antibody is like _____.

Answer – “ Y “

20. The anticodon for initiation codon for protein synthesis is _____.

Answer- UAC.

21. Genetic information is transferred from nucleus to cytoplasm through—

(a) RNA

(b) DNA

(c) Anticodon

(d) Cytoplasm

Ans. RNA

22. In a double stranded DNA, DNA has 20% thymine then calculate percentage of guanine

(a) 30%

(b) 10%

(c) 90%

(d) 40%

Ans. 30%

23. Entamoeba histolytica is transmitted through

(a) Insect bite

(b) Physical Touch

(c)contaminated food or water (d)both (a) and (b)

Ans. Contaminated food or water

24.Vaccination provides

- (a)Active immunity (b)Passive immunity
(c)Natural immunity (d)both (a) and (b)

Ans. Active immunity

25.Multipleallelism is observed in

- (a)Flower colour in snapdragon
(b)Pod colour in Pisumsativum
(c)Haemophilia in man
(d)ABO blood group

Ans. ABO blood group

26.Both husband and wife have normal vision through the father of wife were colour blind.The probability of their daughter becoming colour blind is

- (a)0% (b)25%
(c)50% (d)15%

Ans. 0%

27.Which out of the following is not a fungal disease?

- (a)Rust of Wheat
(b)Smut of bajra
(c)Black rot of crucifers
(d)Red rot of sugarcane

Ans. Black rot of sugarcane

28. Which one of the following have haploid plant body?

- (a)Monera (b)Fungi
(c)Algae (d)All of the above

Ans. All of the above

29.In which of the following ARTs,does in vivo fertilization

- (a)ZIFT (b)GIFT
(c)ICSI (d)IVF

Ans.GIFT

30.Emergency contraceptives are effective if used within-

- (a)72 hrs of coitus (b)72 hrs of ovulation
(c) 72 hrs of menstruation (d) 72 hrs of implantation

Ans.72 hrs of coitus

31.What is the percentage of photosynthetically active radiation (PAR) in the incident solar radiation?

- (a)100% (b)50%
(c)1-5% (d)2-10%

Ans.50%

32.Silencing of a gene could achieved through the use of-

- (a) short interfering RNA (b)antisense RNA
(c)by both (d)none

Ans.by both

33.Which among the following is based antigen antibody interaction?

- (a)PCR (b)electrophoresis
(c)ELISA (d)All

Ans. ELISA

34.Which one of the following is not a nitrogen fixing organism?

- (a) Anabaena
- (c) Azotobacter

- (b) Nostoc
- (d) Pseudomonas

Ans. Pseudomonas

35. Analogous organs arise due to-

- (a) Divergent evolution
- (c) Genetic Drift

- (b) Artificial selection
- (d) Convergent evolution

Ans. Convergent evolution

36. The human chromosome with the highest & least number of genes in them are respectively-

- (a) chromosome 21 & y
- (c) chromosome 1 & y

- (b) chromosome 1 & y
- (d) chromosome x & y

Ans. chromosome 1 & y

37. Match the following –

- 1. Pericarp. cotyledon in the seeds of grass
- 2. Pollen grains of Vallisneria. remain of nucellus
- 3. Perisperm. mucilaginous covering
- 4. Scutellum. fruit wall

Ans. 1-d, 2-c, 3-b, 4-a

38. Match the following-

- A. zoospore. Ginger
- B. conidia. Hydra
- C. gemmule. Chlamydomonas
- D. bud. Penicillium
- E. rhizome. Sponge

Ans. A-c, B-d, C-e, D-b, E-a

39. Match the following-

- A. Lactation amenorrhoea
 - B. ICSI
 - C. Tubectomy
 - D. Oral contraceptives. Blocking the transport of gamete
- a. directly injecting sperm into ovum
 - b. suppressing ovulation &
 - c. suppression of gonadotropins

Ans. A-b, B-a, C-d, D-c

40. Match the following:-

- A. Catalytic converter
 - B. Electrostatic precipitator
 - C. Earmuffs
 - D. Landfills
- a. particulate matter
 - b. carbon monoxide and nitrogen oxide
 - c. high noise level
 - d. solid wastes

Ans. A-b, B-a, C-c, D-d