

PROVISIONAL ANSWER KEY

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Question1:-Keibul Lamjao, worlds only floating national park is located in which state ?

- A:-Assam
- B:-Tripura
- C:-Manipur
- D:-Arunachal Pradesh

Correct Answer:- Option-C

Question2:-The leader of revolt of 1857 in Lucknow was

- A:-Tatya Tope
- B:-Kunwarsingh
- C:-Birjis Qadir
- D:-Begum Hazrath Mahal

Correct Answer:- Option-D

Question3:-"Atoms can neither be created nor be destroyed" This principle is created by

- A:-Avogadro
- B:-Dalton
- C:-Rutherford
- D:-Neils Bohr

Correct Answer:- Option-B

Question4:-The first book completely printed in Malayalam Language ?

- A:-Samshepavedartham
- B:-Vedopadesham
- C:-Bible
- D:-Rajya Samajaram

Correct Answer:- Option-A

Question5:-Paliyam Sathyagraha was launched by

- A:-A. G. Velayudhan
- B:-T. K. Madhavan
- C:-C. Kesavan
- D:-Mannath Padmanabhan

Correct Answer:- Option-C

Question6:-Olympics in 2016 was held at

- A:-Beijing
- B:-Rio De Janeiro
- C:-Tokyo
- D:-Brazil

Correct Answer:- Option-B

Question7:-"Sabdikkunna Kalappa" written by

- A:-S. K. Pottakkad
- B:-Kesav Dev
- C:-Vallathol Narayana Menon
- D:-Ponkunnam Varky

Correct Answer:- Option-D

Question8:-International Mother Language Day is being observed the world on

- A:-21 February
- B:-8 March
- C:-22 April
- D:-5 June

Correct Answer:- Option-A

Question9:-Jhansi Rani of Travancore

- A:-Anna Chandi
- B:-Arya Pallan
- C:-Akkamma Cherian
- D:-Kuttimalu Amma

Correct Answer:- Option-C

Question10:-Almavidya Sangam was found by

- A:-Ayyam kali
- B:-Chattampi Swamikal
- C:-Sreenarayana Guru
- D:-Vagbhatananda

Correct Answer:- Option-D

Question11:-If a student is not able to follow a class, teacher may

- A:-Repeat the same many times
- B:-Explain it in different ways
- C:-Ask him to leave that topic
- D:-Feel sympathy towards him

Correct Answer:- Option-B

Question12:-An effective teacher adopt the norms of

- A:-Autocratic society
- B:-Democratic society
- C:-Laissez-faire society
- D:-All the above

Correct Answer:- Option-B

Question13:-To develop rapport with students

- A:-Do not punish students
- B:-Do not blame students
- C:-Treat them in a humanistic way
- D:-Keep contact with parents

Correct Answer:- Option-C

Question14:-If students ask question in the class

- A:-Ask them to find answer from Internet
- B:-Ask them not to disturb the class
- C:-Ask them to meet after the class
- D:-Encourage them to ask questions

Correct Answer:- Option-D

Question15:-Open book examination helps to

- A:-Compel students for not learning
- B:-Compel students for not attending the classes
- C:-Compel students to think in different ways
- D:-None of these

Correct Answer:- Option-C

Question16:-Research that is conducted purely for the development of theory is termed

- A:-Applied research
- B:-Fundamental research
- C:-Laboratory research
- D:-Action research

Correct Answer:- Option-B

Question17:-In an experiment of visual perception you make sure that your laboratory has the same temperature and has the same level of lighting throughout the experiment. This is an example of

- A:-Holding extraneous variable constant
- B:-Manipulating an independent variable
- C:-Randomly assigning participants to conditions
- D:-Ignoring extraneous variables

Correct Answer:- Option-A

Question18:-Two factors that enter into determining the number of participants needed to ensure a valid survey are

- A:-Administration technique and population characteristics
- B:-Population characteristics and sampling technique
- C:-Sampling technique and the amount of acceptable error
- D:-The amount of acceptable error and expected magnitude of proportions in the population

Correct Answer:- Option-D

Question19:-A scale that provides the most information about a variable is the

- A:-Nominal scale
- B:-Ordinal scale
- C:-Interval scale
- D:-Ratio scale

Correct Answer:- Option-D

Question20:-When you critically evaluate the method section of a research report, the litmus test of that section is

- A:-Whether you can replicate the study from the description given
- B:-Whether the method described is a standard one
- C:-The test given to the participants to determine whether they should be included in the study
- D:-Any test that is administered as a part of the procedure

Correct Answer:- Option-A

Question21:-Which term is specifically used for miniature succession of microorganisms ?

- A:-Disclimax
- B:-Subsere
- C:-Cliamax
- D:-Serule

Correct Answer:- Option-D

Question22:-Smith (1933) used the following one term instead of conjugales in his algal classification.

- A:-Euconjugatae
- B:-Mougeotiaceae
- C:-Desmoldiidae
- D:-Zygnematales

Correct Answer:- Option-D

Question23:-Desikachary (1959) called single celled hormogones of blue green algae as

- A:-Carospores
- B:-Statospores
- C:-Paraspores
- D:-Planococci

Correct Answer:- Option-D

Question24:-A layer which helps in the opening of anther

- A:-Tapetum
- B:-Middle layer
- C:-Epidermal cell
- D:-Endothecium

Correct Answer:- Option-D

Question25:-Which statement is not true for the mosses ?

- A:-Sporophyte is dependent upon gametophyte
- B:-Sporophytes grows by apical cell division
- C:-Mosses are probably sister to the vascular plants
- D:-Sperm produced in archegonia

Correct Answer:- Option-D

Question26:-The soil best for plant is

- A:-Fine sand
- B:-Coarse sand
- C:-Clay
- D:-Loam soil

Correct Answer:- Option-D

Question27:-The abundance of a species population within its habitat is called

- A:-Absolute density
- B:-Regional density
- C:-Relative density
- D:-Niche density

Correct Answer:- Option-D

Question28:-The following one relationship lasts over time

- A:-Mutualism
- B:-Parasitism
- C:-Commensalism

D:-Symbiosis

Correct Answer:- Option-D

Question29:-Replication in DNA moves from

A:-3' to 5' direction

B:-5' to 5' direction

C:-3' to 3' direction

D:-5' to 3' direction

Correct Answer:- Option-D

Question30:-Cot $\frac{1}{2}$ of DNA is defined as

A:-The time taken to reanneal

B:-Concentration of DNA in a cell at any time

C:-Amount of cytosine bases in a single strand by DNA

D:-The initial concentration multiplied by time for half of DNA to reanneal

Correct Answer:- Option-D

Question31:-Chaperon protein help in

A:-Protein folding and assembly

B:-Protein folding only

C:-Protein stability

D:-Both 1) and 2)

Correct Answer:- Option-D

Question32:-An enzyme responsible for the synthesis of tRNA

A:-tRNA replicase

B:-tRNA synthetase

C:-Ribosomal enzymes

D:-RNA Polymerase

Correct Answer:- Option-D

Question33:-Polytene chromosome is generated by

A:-DNA replication failure

B:-Homologous chromosome pairing

C:-Transcription process

D:-DNA replication without segregation

Correct Answer:- Option-D

Question34:-Which of the following correctly matches a phase of the cell cycle ?

A:-S1 immediately precedes cell division

B:-G2, cell division

C:-M, duplication of DNA

D:-G1 immediately follows cell division

Correct Answer:- Option-D

Question35:-The 'RNA world hypothesis' proposes that

A:-RNA formed from DNA

B:-RNA is a catalyst

C:-RNA formed from protein

D:-RNA is both catalyst and genetic material

Correct Answer:- Option-D

Question36:-Which of the following structure is not surrounded by one or more membrane ?

A:-Chloroplast

B:-Mitochondria

C:-Proxisome

D:-Ribosome

Correct Answer:- Option-D

Question37:-Choose the more appropriate term for 'Connexin' protein

A:-Desmosomes

B:-Intercellular spaces

C:-Tight junctions

D:-Gap junctions

Correct Answer:- Option-D

Question38:-Water in non-cyclic photophosphorylation is used for

A:-Excitation of chlorophyll

B:-Hydrolysis of ATP

C:-Oxidization of NADPH
D:-Reduction of chlorophyll
Correct Answer:- Option-D

Question39:-The genetic sex of a human being is determined by
A:-X and Y chromosome, the male being XX
B:-The Y chromosome
C:-Z and W chromosome, the male being ZZ
D:-The number of X chromosome, the male being XO
Correct Answer:- Option-B

Question40:-The sum total of proteins produced by an organism.
A:-Metablomics
B:-Proteome
C:-Genomics
D:-All of these
Correct Answer:- Option-B

Question41:-The term 'Pharming' refers to
A:-Genetically modified foods from plants
B:-Drug synthesis from transgenic plants
C:-Recombinant drugs from bacteria
D:-Transgenic research by animals
Correct Answer:- Option-B

Question42:-What type of mating generally seen in the plant 'Primroses' ?
A:-Random mating
B:-Both Non-random mating and self fertilization
C:-Non-random mating
D:-Self fertilization
Correct Answer:- Option-B

Question43:-Which of the following is not essential for a population at Hardy-Weinberg equilibrium ?
A:-No migration between populations
B:-Multiple alleles at every locus
C:-No involvement of natural selection on the alleles
D:-Random mating
Correct Answer:- Option-B

Question44:-'Amborella'.
A:-The first flowering plant
B:-Sister group of all living angiosperms
C:-The first gymnosperm clade
D:-Eudicot
Correct Answer:- Option-B

Question45:-Atropine is obtained from the plant
A:-Pacific yew
B:-Belladonna
C:-Priwinkle
D:-Foxglove
Correct Answer:- Option-B

Question46:-The only fungi with flagella
A:-Microsporidia
B:-Chytrids
C:-Zygomycota
D:-Dikarya
Correct Answer:- Option-B

Question47:-Reproductive structures bear one or more green cells surrounded by fungal hyphae
A:-Basidiospore
B:-Soredia
C:-Conidia
D:-Ascospore
Correct Answer:- Option-B

Question48:-Pseudomonas tobaci which produces the toxin when it affects the tobacco plant
A:-Victorin

B:-Wild fire toxin

C:-Periconia toxin

D:-Piricularin

Correct Answer:- Option-B

Question49:-When did the Government of India passed the 'Destructive Insects and Pests Act' ?

A:-1947

B:-1914

C:-1952

D:-1925

Correct Answer:- Option-B

Question50:-The fungus *Pestalotia palmarum* belongs to the group

A:-Ascomycetes

B:-Deuteromycetes

C:-Zygomycetes

D:-Basidiomycetes

Correct Answer:- Option-B

Question51:-The concept of in vitro cell culture was developed by

A:-Kotte and Robins

B:-Haberlandt

C:-Hanning

D:-Knop

Correct Answer:- Option-B

Question52:-The embryo formed by unfertilized egg

A:-Androgenic embryos

B:-Parthenogenetic embryos

C:-Somatic embryos

D:-Adventive embryos

Correct Answer:- Option-B

Question53:-The first report of forming haploid embryos from *Datura* by in vitro was published

A:-Nitsch

B:-Guha and Maheswary

C:-Maheswary

D:-Bourgin and Nitsch

Correct Answer:- Option-B

Question54:-Ajmalacine, serpentine, reserpine obtained from

A:-Aster group

B:-Rauwolfia group

C:-Liliaceae group

D:-Euphorbia group

Correct Answer:- Option-B

Question55:-National Orchidaria situated at

A:-Calcutta

B:-Shillong

C:-Calicut

D:-Palode

Correct Answer:- Option-B

Question56:-Tree of `21^(st)` century

A:-Rubber

B:-Neem

C:-Orchid

D:-Anthurium

Correct Answer:- Option-B

Question57:-*Triticum dicoccum* is commonly known as

A:-Emmer wheat

B:-Club wheat

C:-Elinkorn wheat

D:-Durum wheat

Correct Answer:- Option-A

Question58:-The fruit of *abelmoschus esculentus*

A:-Loculicidal capsule

B:-Capsule

C:-Berry

D:-Hesperidium

Correct Answer:- Option-A

Question59:-Terpenoids have been extensively used in the chemotaxonomy of

A:-Citrus plants

B:-Horedum plants

C:-Papaver plants

D:-Strychnos plants

Correct Answer:- Option-A

Question60:-The highest chromosome number in Ophioglossum reticulatum

A:- $2n = 1260$

B:- $2n = 1206$

C:- $2n = 1026$

D:- $2n = 1620$

Correct Answer:- Option-A

Question61:-A pendulous type of inflorescence

A:-Catkin

B:-Head

C:-Spike

D:-Umbel

Correct Answer:- Option-A

Question62:-Which year marked the birth of modern system of biological nomenclature ?

A:-1758

B:-1857

C:-1757

D:-1854

Correct Answer:- Option-A

Question63:-Sewall Wright effect refers to random fluctuations in the gene frequencies in

A:-Small population

B:-Large population

C:-Ecosystem

D:-None of these

Correct Answer:- Option-A

Question64:-The Central Tuber Crops Research Institute located

A:-Trivandrum

B:-Kasargode

C:-Coimbatore

D:-Simla

Correct Answer:- Option-A

Question65:-A nodal organization in India to coordinate all the activities related to plant collection, introduction, documentation and sustainable management of germplasm.

A:-NBPGR

B:-IARI

C:-ICRISAT

D:-IBPGR

Correct Answer:- Option-A

Question66:-The method of selection of plants from the population by their phenotype

A:-Mass selection

B:-Pureline selection

C:-Clonal selection

D:-Both 1) and 3)

Correct Answer:- Option-A

Question67:-In which category the chemical mutagen, 2-amino purine includes

A:-Base analogues

B:-Alkylating agents

C:-Acridine dyes

D:-Other agents

Correct Answer:- Option-A

Question68:-What is LD 50 ?

- A:-Mutagen kills 50% treated materials
- B:-Mutagen kills 50% un-treated materials
- C:-Low dose of 50% chemicals
- D:-Low dose of semi mutagen

Correct Answer:- Option-A

Question69:-The codons which collectively code for the same amino acid

- A:-Synonymous codons or Degenerate codons
- B:-Initiation codons
- C:-Termination codons
- D:-Triplet codons

Correct Answer:- Option-A

Question70:-A mother of blood group O has a child of O group. The father could be

- A:-A or B or O
- B:-O only
- C:-A or B
- D:-AB only

Correct Answer:- Option-A

Question71:-How many genetically different gametes can be made by an individual genotype AaBbccDDEe ?

- A:-8
- B:-10
- C:-32
- D:-5

Correct Answer:- Option-A

Question72:-Cite an example of non-allelic interaction

- A:-Complementary gene action
- B:-Multiple allelism
- C:-Co-dominance
- D:-Incomplete dominance

Correct Answer:- Option-A

Question73:-Polymerase chain reaction involves

- A:-Denaturation, annealing and polymerisation
- B:-Polymerisation and denaturation
- C:-Extension and annealing
- D:-None of these

Correct Answer:- Option-A

Question74:-DNA is separated by

- A:-Agarose Gel electrophoresis
- B:-PAGE
- C:-SDA-PAGE
- D:-SDS-PAGE

Correct Answer:- Option-A

Question75:-If the respiratory substrate is fat and oil, what will be the R.Q. ?

- A:-0.7
- B:-1.7
- C:-1.0
- D:-infinite

Correct Answer:- Option-A

Question76:-Biosynthesis of Ethylene from

- A:-Methionine
- B:-Mevalonic acid
- C:-Tryptophan
- D:-Cysteine

Correct Answer:- Option-A

Question77:-A programme to identify complete gene structures in genomic DNA

- A:-SWISSPORT
- B:-BLAST
- C:-GENSCAN

D:-Phylip

Correct Answer:- Option-C

Question78:-A mating is expected to produce 50% heterozygotes and homozygotes is

A:-BB`xx` Bb

B:-Bb`xx` Bb

C:-Both 1) and 2)

D:-bb`xx` bb

Correct Answer:- Option-C

Question79:-How many triplet codons can be made from four nucleotides A, U, G and C containing one or more Uracils ?

A:-27/64

B:-17/64

C:-37/64

D:-47/64

Correct Answer:- Option-C

Question80:-Given the antisense strand DNA codon 3'TAC5', the anticodon that pairs with corresponding mRNA codon could be

A:-3'CAT5'

B:-5'AUG3'

C:-3'UAC5'

D:-None of the above

Correct Answer:- Option-C

Question81:-Super bug is a

A:-Transgenic plant

B:-Transgenic insect

C:-Bacterium

D:-Virus

Correct Answer:- Option-C

Question82:-Which of the following is a cloning vector ?

A:-Cosmid

B:-Phasmid

C:-Plasmid

D:-All of these

Correct Answer:- Option-D

Question83:-The following one sclerids is found in the seed coats of Pisum sativum

A:-Astrosclerids

B:-Brachysclerids

C:-Osteosclerids

D:-Trichosclerids

Correct Answer:- Option-C

Question84:-Haematoxylin belongs to which category ?

A:-Acidic stains

B:-Neutral stains

C:-Basic stains

D:-All of these

Correct Answer:- Option-C

Question85:-DPX stands for

A:-Dilute Primary Xylol

B:-Distrene Prime Xylene

C:-Distrene Plasticizer Xylene

D:-Dilute Plastic Xylol

Correct Answer:- Option-C

Question86:-Cells which are involved in the lateral transport of solutes

A:-Parenchyma cells

B:-Leaf traces

C:-Transfer cells

D:-Foliar trace

Correct Answer:- Option-C

Question87:-Secondary cortex is

A:-Phellogen

B:-Phellum
C:-Phelloderm
D:-Complementary cells
Correct Answer:- Option-C

Question88:-A graph which containing frequencies in the form of vertical rectangles

A:-Frequency curve
B:-Frequency polygon
C:-Histogram
D:-Both 1) and 2)

Correct Answer:- Option-C

Question89:-The first TEM was designed by

A:-Koehler
B:-Smith
C:-Knoll and Ruska
D:-Zeiss

Correct Answer:- Option-C

Question90:-The pollen tube enters through the nucellus by a process

A:-Porogamy
B:-Chalazogamy
C:-Mesogamy
D:-Orthogamy

Correct Answer:- Option-C

Question91:-"The term 'law' in Article 21 of the Constitution refers to positive or state made law and not natural justice and this meaning of the language of Art. 21 cannot be modified with reference to preamble".

The above observations on the utility of preamble as an aid of interpretation was made by the Supreme Court in

A:-Berubari Union Cae (AIR 1960 SC 845)
B:-A. K. Gopalan V. State of Madras (AIR 1950 SC 27)
C:-Kesavananda Bharathi V. State of Kerala (AIR 1973 SC 1461)
D:-Golaknath V. State of Punjab (AIR 1967 SC 1643)

Correct Answer:- Option-B

Question92:-Safeguards from arbitrary arrest and detention under Articles 22(1) and 22(2) is not available in case of

A:-Preventive detention
B:-Alien enemies
C:-Both 1) and 2)
D:-Neither 1) nor 2)

Correct Answer:- Option-C

Question93:-Which of the following are correctly matched ?

i) Ninth Schedule Added by `1^(st)` Amendment
ii) Tenth Schedule Added by `52^(nd)` Amendment
iii) `11^(th)` Schedule Added by `73^(rd)` Amendment
iv) `12^(th)` Schedule Added by `74^(th)` Amendment

A:-i & ii
B:-i, ii & iii
C:-ii, iii & iv
D:-i, ii, iii & iv

Correct Answer:- Option-D

Question94:-Indian Constitution consists of

A:-22 Parts
B:-28 Parts
C:-23 Parts
D:-12 Parts

Correct Answer:- Option-A

Question95:-If Rajya Sabha fails to return a money bill with its recommendations within 14 days allowed to it.

A:-The Bill becomes void
B:-Again a fresh bill has to be introduced in Lok Sabha
C:-It is deemed to have been passed by both houses on the expiry of that period
D:-1) & 2) only

Correct Answer:- Option-C

Question96:-Sexual abuse of children by public servants and blood relatives, impregnating a child and striping a child naked in public are treated as an offense of _____ under protection of children from Sexual Offense Act 2012.

A:-Sexual assault under Sec. 7

B:-Aggravated sexual assault under Sec. 9

C:-Aggravated penetrative sexual assault under Sec. 5

D:-Sexual harassment under Sec. 11

Correct Answer:- Option-C

Question97:-How many schedules does the Right to Information Act 2005 have,

A:-5

B:-10

C:-2

D:-8

Correct Answer:- Option-C

Question98:-How frequently shall Social Audit be conducted in Grama Panchayat under Mahathma Gandhi National Rural Employment Act ?

A:-After one yaer

B:-Every month

C:-Once in every six months

D:-15 days

Correct Answer:- Option-C

Question99:-The National Food Security Act came into force in

A:-2013

B:-2012

C:-2014

D:-2011

Correct Answer:- Option-A

Question100:-The first _____ has been launched for blind and visually impaired in 2015.

A:-Eyeway National Programme

B:-Eyeway National Helpdesk

C:-Eyeway domestic Helpdesk

D:-None of the above

Correct Answer:- Option-B