

PROVISIONAL ANSWER KEY

Question 136/2024/OL

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Category 439/2023

Code:

Exam: Field Officer

Date of Test 26-12-2024

Department Kerala State co Op Rubber Marketing Fedn Ltd

Question1:-The sequence of reactivity for the following halogen fluorides is

A:- $ClF_3 > BrF_5 > ClF > IF_3$

B:- $ClF_3 > BrF_5 < ClF > IF_3$

C:- $ClF_3 < BrF_5 < ClF < IF_3$

D:- $ClF_3 < BrF_5 > ClF > IF_3$

Correct Answer:- Option-A

Question2:-The hybridization of Xe in XeO_3 and geometry of $XeOF_4$ are respectively

A:- sp^3d and Square Pyramidal

B:- sp^2 and Trigonal BiPyramidal

C:- sp^3d^2 and Square Pyramidal

D:- sp^3 and Square Pyramidal

Correct Answer:- Option-D

Question3:-As per molecular orbital theory, the bond order of nitrosonium ion and superoxide ion are respectively,

A:-2.50 and 1.50

B:-1.50 and 3.00

C:-3.00 and 1.50

D:-2.50 and 2.00

Correct Answer:- Option-C

Question4:-Identify the correct statements from the following:

i. Ions without noble gas configuration will have high charges at their surfaces and thus

highly polarising.

ii. The number of -OH groups present in pyrophosphoric acid and hypophosphorous acid are different.

iii. Tl(I) compounds are more stable than Tl(III) compounds.

iv. The polar diagrams do not represent the total wave function (ψ), but only the angular part of the wave function.

A:-i, ii, iii and iv are correct

B:-ii, iii and iv are correct

C:-i, iii and iv are correct

D:-i, ii and iv are correct

Correct Answer:- Option-C

Question5:-Which of the following scientists provided experimental evidence that confirmed that electrons exhibit wave like properties as predicted by De Broglie?

A:-Germer and Davisson

B:-Albert Einstein and Heisenberg

C:-Davisson and Albert Einstein

D:-Davisson and De Broglie

Correct Answer:- Option-A

Question6:-Which one of the following statement is not correct regarding boron and its compounds?

A:-The principal oxide of boron is boric oxide

B:-Metaboric acid is H_2BO_2

C:-Borazine has a regular plane hexagonal structure

D:-Boron tri halides are volatile, highly reactive which show no detectable tendency to dimerise

Correct Answer:- Option-B

Question7:-Which of the following coordination compounds exhibit both ionization and linkage isomerism?

i. $[Co(NH_3)_5NO_2]Cl$

ii. $[Co(NH_3)_5SCN]Cl$

iii. $[Co(NH_3)_5Br]Cl$

iv. $[Co(NH_3)_5H_2O]Cl$

A:-All the above

B:-i and ii

C:-ii and iii

D:-iii and iv

Correct Answer:- Option-B

Question8:-The product obtained when hydrogen peroxide is added to an acidified solution of a dichromate is

A:- $CrO(O_2)_2$

B:- $H_2Cr_2O_7$

C:- CrO_3

D:- CrO_4

Correct Answer:- Option-A

Question9:-The sum of the first three ionization energies is maximum for which of the following lanthanides

A:- Gd^{+3} and Yb^{+3}

B:- Eu^{+3} and Lu^{+3}

C:- Eu^{+3} and Gd^{+3}

D:- Eu^{+3} and Yb^{+3}

Correct Answer:- Option-D

Question10:-From the following complexes of Nickel, identify which are tetrahedral?

A:- $[Ni(CO)_4]$ and $K_2[Ni(CN)_4]$

B:- $[Ni(Br)(PPh_3)_3]$ and $K_2[Ni(CN)_4]$

C:- $K_2[NiCl_4]$ and $K_2[Ni(CN)_4]$

D:- $[Ni(Br)(PPh_3)_3]$ and $[Ni(CO)_4]$

Correct Answer:- Option-D

Question11:-Reduction of potassium permanganate with aqueous Na_2SO_3 produces

A:-Trioxomanganate (VI)

B:-Manganous oxide (IV)

C:-Tetraoxomanganate (V)

D:-Dioxomanganate (V)

Correct Answer:- Option-C

Question12:-Biodegradable non persistent Pesticide which is considered as a neurotoxin that causes immediate paralysis to insects

A:-Mirex

B:-Endrin

C:-Heptachlor

D:-Pyrethrin

Correct Answer:- Option-D

Question13:-The Resin Identification Codes or the "Chasing arrows" triangle with recycling codes 3 & 4 are for the following

A:-Poly Vinyl Chloride and Low Density Poly Ethylene

B:-Poly Propylene and Poly Vinyl Chloride

C:-High Density Poly Ethylene and Low Density Poly Ethylene

D:-Low Density Poly Ethylene and High Density Poly Ethylene

Correct Answer:- Option-A

Question14:-Storage of iron in the body is carried out by

A:-Cytochrome P-450

B:-Ferritin

C:-Haemoglobin

D:-Myoglobin

Correct Answer:- Option-B

Question15:-Predominant metal present in the Reaction Centre of Photosystem II is

A:-Zn

B:-Cu

C:-Mn

D:-Fe

Correct Answer:- Option-C

Question16:-The metal carbonyls that does not obey EAN rule

A:- $Ni(CO)_4$

B:- $V(CO)_6$

C:- $Cr(CO)_6$

D:- $Fe(CO)_5$

Correct Answer:- Option-B

Question17:-Ozone and oxides of nitrogen are the principal constituents of

A:-Photochemical Smog

B:-London Smog

C:-Sulphur Smog

D:-Classical Smog

Correct Answer:- Option-A

Question18:-Which among the following steps is not involved in the process of precipitation in gravimetric analysis?

A:-Supersaturation

B:-Digestion

C:-Nucleation

D:-Crystal growth

Correct Answer:- Option-B

Question19:-In a Scanning Electron Microscope the secondary electrons radiated back is collected at?

A:-Specimen

B:-Cathode

C:-Vacuum chamber

D:-Anode

Correct Answer:- Option-D

Question20:-Which among the following stationary phases act as a strong acidic cation exchange resin

A:-Quarternary Ammonium Polystyrene

B:-Sulphonated Polystyrene

C:-Polyamine Polystyrene

D:-Carboxylic Polymethyl Methacrylate

Correct Answer:- Option-B

Question21:-Which of the following compounds show Norrish Type II reaction?

A:-Propanone

B:-3-Pentanone

C:-4,4 Dimethyl 2-Pentanone

D:-2, 4 Dimethyl 3-Pentanone

Correct Answer:- Option-C

Question22:-Arrange the following compounds in the order of decreasing reactivity towards electrophilic substitution reaction.

i. Phenol

ii. Toluene

iii. Benzaldehyde

iv. Aniline

A:-iv>i>ii>iii

B:-i>iii>iv>ii

C:-iii>iv>ii>i

D:-i>iv>iii>ii

Correct Answer:- Option-A

Question23:-Select the incorrect statement among the following for S_N2 reaction

A:-Change of nucleophile alter the rate of the reaction

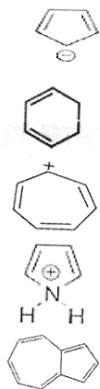
B:-Stronger the nucleophile faster will be the rate

C:-The rate of the reaction will be faster if the leaving group is less basic

D:-The rate of reaction is independent of the concentration of nucleophile

Correct Answer:- Option-D

Question24:-How many of the following species are aromatic in nature?



A:-2

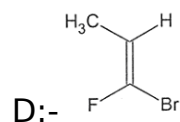
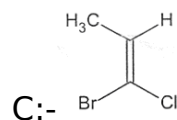
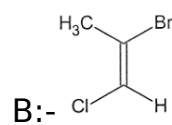
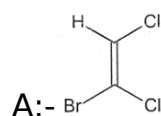
B:-3

C:-4

D:-5

Correct Answer:- Option-B

Question25:-Among the following Z-Isomer is:



Correct Answer:- Option-C

Question26:-Which among the following compound is formed when Acetone reacts with Methyl Magnesium bromide followed by hydrolysis?

A:-tert-Butyl alcohol

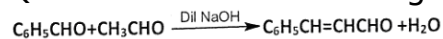
B:-n-butyl alcohol

C:-Iso propyl alcohol

D:-n-propyl alcohol

Correct Answer:- Option-A

Question27:-The following reaction is an example of :



A:-Benzoin condensation

B:-Claisen Schmidt Reaction

C:-Reformatsky Reaction

D:-Perkin Condensation

Correct Answer:- Option-B

Question28:-Oxidation of glucose with nitric acid in the presence of $FeSO_4$ and V_2O_5 as catalyst gives

A:-Oxalic acid

B:-Adipic acid

C:-Citric acid

D:-Anthranilic acid

Correct Answer:- Option-A

Question29:-Reaction of Sodium phenoxide with Cl_4 in alkaline medium gives

A:-Salicylaldehyde

B:-Salicylic Acid

C:-Aspirin

D:-Salol

Correct Answer:- Option-B

Question30:-Which of the following compounds is most reactive with anhydrous $ZnCl_2$ and Con.HCl?

A:-2-Methyl propanol

B:-1-Propanol

C:-2-Propanol

D:-2-Methyl-2-propanol

Correct Answer:- Option-D

Question31:-Which among the following compounds undergo Cannizzaro reaction?

A:-Acetone

B:-Acetaldehyde

C:-Butanone

D:-Trimethyl Acetaldehyde

Correct Answer:- Option-D

Question32:-In which of the following terpenes does the isoprene rule not hold?

A:-Limonene

B:-Menthol

C:-Squalene

D:-Myrcene

Correct Answer:- Option-C

Question33:-Which of the following types of plastic undergoes irreversible curing upon heating and cannot be remoulded?

A:-Polyethylene

B:-Polystyrene

C:-Polyvinyl chloride

D:-Polyurethane

Correct Answer:- Option-D

Question34:-In which of the following reactions does diazonium chloride play a crucial role in organic synthesis?

A:-Buchwald-Hartwig amination

B:-Sandmeyer reaction

C:-Wittig reaction

D:-Mannich reaction

Correct Answer:- Option-B

Question35:-Which of the following compounds will give a positive carbylamine test?

A:-N,N- Diethyl aniline

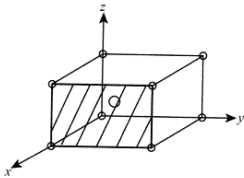
B:-*P*- Ethyl Benzylamine

C:-Triethylamine

D:-Diphenylamine

Correct Answer:- Option-B

Question36:-Identify the following plane



A:-(011) plane in BCC unit cell

B:-(100) plane in FCC unit cell

C:-(100) plane in BCC unit cell

D:-($\bar{1}$ 10) plane in FCC unit cell

Correct Answer:- Option-C

Question37:-Calculate the compressibility factor for N_2 , if two mole of it occupies 0.2 L at 100 K and 82.1 atm.

A:-10

B:-1

C:-50

D:-5

Correct Answer:- Option-B

Question38:-Which of the following describes a Schottky defect in a crystal lattice?

A:-A vacancy created by the absence of a cation and an anion in the lattice structure.

B:-A defect formed due to the presence of an extra ion in the crystal lattice.

C:-An imperfection caused by the substitution of one type of ion with another type of ion in the lattice.

D:-A defect resulting from the displacement of atoms due to external pressure

Correct Answer:- Option-A

Question39:-Which of the following correctly describes the types of statistics used to describe different systems of particles?

A:-Maxwell-Boltzmann statistics describe indistinguishable particles with no restrictions on the number of particles per state.

B:-Bose-Einstein statistics describe indistinguishable particles that obey the Pauli exclusion principle.

C:-Fermi-Dirac statistics describe indistinguishable particles with no restrictions on the number of particles per state.

D:-Fermi-Dirac statistics describe indistinguishable particles that obey the Pauli exclusion principle.

Correct Answer:- Option-D

Question40:-Which of the following statements correctly describes the Joule-Thomson effect?

A:-The Joule-Thomson effect describes the temperature change of a real gas when it is expanded or compressed adiabatically at constant internal energy.

B:-The Joule-Thomson effect describes the temperature change of an ideal gas when it is expanded or compressed adiabatically at constant pressure.

C:-The Joule-Thomson effect describes the temperature change of a real gas when it is expanded or compressed adiabatically at constant enthalpy.

D:-The Joule-Thomson effect describes the pressure change of a real gas when it is expanded or compressed isothermally at constant enthalpy.

Correct Answer:- Option-C

Question41:-Molar conductivity at infinite dilution of weak electrolytes can be determined by

A:-Plotting concentration vs conductance graph

B:-Kohlrausch's law

C:-Both (1) and (2)

D:-Potentiometric titrations

Correct Answer:- Option-B

Question42:-The amount of Al deposited on passing 96500 Coulombs of charge through a solution of $Al(NO_3)_3$ is

A:-9

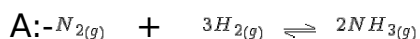
B:-27

C:-18

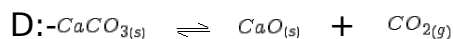
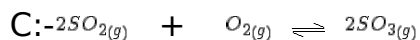
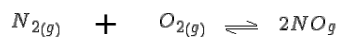
D:-10

Correct Answer:- Option-A

Question43:-In which of the following reactions, the value of K_p will be equal to K_c ?



B:-



Correct Answer:- Option-B

Question44:-Calculate the overall order of the bimolecular reaction based on the following data.

A + B → Product

Con. A	Conc. B	Rate of the reaction
0.01M	0.01M	1×10^3
0.02M	0.01M	4×10^3
0.01M	0.02M	2×10^3

A:-0

B:-1

C:-2

D:-3

Correct Answer:- Option-D

Question45:-The pH of a solution is equal to its pKa value, when

A:-Acid is consumed completely

B:-Base is consumed completely

C:-The concentration of conjugate base and conjugate acid are equal

D:-All of the above

Correct Answer:- Option-C

Question46:-Which of the following molecules will have a center of symmetry?

A:-Water

B:-Ammonia

C:-Hydrogen

D:-Boron trifluoride

Correct Answer:- Option-C

Question47:-Which of the following factors will affect the Chemical shift values in NMR spectroscopy?

A:-Size of the atom

B:-Electron density around the central atom

C:-Applied Magnetic field

D:-Solvent used while recording spectrum

Correct Answer:- Option-B

Question48:-What is the result of applying operator $A = \frac{d^2}{dx^2}$ to the function $f(x) = 10x^3$?

A:- $30x^2$

B:- $30x^3$

C:- $60x^2$

D:- $60x$

Correct Answer:- Option-D

Question49:-What is the energy obtained for a particle in a 3D box?

A:- $E = \frac{h^2 \pi^2 n^2}{8ma}$

B:- $E = \frac{h^2}{8m} \left(\frac{n^2}{a} \right)$

C:- $E = \frac{h^2 \pi^2}{8mabc}$

D:- $E = \frac{h^2}{8m} \left(\frac{n_x^2}{a^2} + \frac{n_y^2}{b^2} + \frac{n_z^2}{c^2} \right)$

Correct Answer:- Option-D

Question50:-Why are Stokes lines more intense than anti-Stokes lines in Raman effect?

A:-Ground and excited states are equally populated

B:-Excited state is more populated than ground state

C:-Ground state is more populated than excited state

D:-None of the above

Correct Answer:- Option-C

Question51:-Choose the CORRECT answer.

- i. The cambium ring in roots is partly primary and partly secondary in origin.
- ii. Medullary rays are less distinct in sapwood.
- iii. Tracheid parenchyma contribute 90-95% in hardwood.
- iv. Vascular cambium and cork cambium are lateral meristems.

A:-True, True, False, False

B:-True, False, True, False

C:-False, False, True, True

D:-False, True, False, True

Correct Answer:- Option-D

Question52:-The position of phloem in the vertical section of a typical dicot leaf is

A:-Facing the upper epidermis.

B:-Facing the lower epidermis.

C:-Facing lateral sides.

D:-All around the xylem.

Correct Answer:- Option-A

Question53:-Choose the CORRECT answer.

Nucleated cells of phloem: _____; Living cells of xylem: _____.

A:-Sieve tubes; Tracheids

B:-Companion cells; Ray & Parenchyma

C:-Phloem Fibres; Xylem fibres

D:-Phloem parenchyma; Vessels

Correct Answer:- Option-B

Question54:-_____ cannot bring genetically same type of pollens on stigma.

A:-Autogamy

B:-Cleistogamy

C:-Geitonogamy

D:-Xenogamy

Correct Answer:- Option-D

Question55:-Some statements regarding the types of embryo sacs in angiosperms are given below. Choose the INCORRECT one.

i. In *polygonum* type, the nucleus divides thrice to form the eight nucleated embryo sac.

ii. *Allium* type develops from the micropylar dyad.

iii. *Endymion* type develops from the chalazal dyad.

iv. Nuclear fusion occurs in *Peperomia* type.

A:-i & ii

B:-ii & iv

C:-i, iii, iv

D:-ii, iii, iv

Correct Answer:- Option-D

Question56:-The most suitable preparation to study the meiotic behavior of chromosomes is _____.

A:-Maceration

B:-Smear

C:-Squash

D:-Whole mount

Correct Answer:- Option-B

Question57:-Determine the mean of the median and mode of the data given below.

5, 10, 3, 6, 4, 8, 9, 3, 15, 2, 9, 4, 19, 11, 4

A:-5

B:-9

C:-10

D:-12

Correct Answer:- Option-A

Question58:-Choose the Correct statement from the following:

- i. Thin layer chromatography is a type of partition chromatography, while paper chromatography is a type of adsorption chromatography.
- ii. Ion exchange chromatography is affinity chromatography.
- iii. In SDS-PAGE, the proteins are separated according to their electrophoretic mobility.
- iv. Electrophoresis can be used for the separation of lipids.

A:-i and ii

B:-i and iv

C:-ii and iii

D:-ii and iv

Correct Answer:- Option-C

Question59:-Match the following and choose the correct answer:

- | | |
|--------------------|-----------------------|
| i. Aecidiospores | a. <i>Agaricus</i> |
| ii. Ascospores | b. <i>Peziza</i> |
| iii. Basidiospores | c. <i>Penicillium</i> |
| iv. Conidia | d. <i>Puccinia</i> |

A:-i-a, ii-c, iii-d, iv-b

B:-i-b, ii-d, iii-c, iv-a

C:-i-c, ii-a, iii-b, iv-d

D:-i-d, ii-b, iii-a, iv-c

Correct Answer:- Option-D

Question60:-Choose the Correct answer:

_____ : Early blight of Potato and Tomato;

_____ : Ergot of rye and grasses.

_____ : Late blight of Potato and Tomato;

_____ : Tikka disease of groundnut.

A:-*Rhizopus stolonifer*, *Puccinia graminis*, *Fusarium oxysporum*, *Phytophthora infestans*.

B:-*Alternaria solani*, *Claviceps purpurea*, *Phytophthora infestans*, *Cercospora personata*.

C:-*Phytophthora infestans*, *Puccinia graminis*, *Alternaria solani*, *Fusarium oxysporum*.

D:-*Phytophthora infestans*, *Claviceps purpurea*, *Alternaria solani*, *Rhizopus stolonifer*.

Correct Answer:- Option-B

Question61:-*Lycopodium clavatum*: "Club moss"; _____ : "Irish moss".

A:-*Chondrus*

B:-*Funaria*

C:-*Gracilaria*

D:-*Sphagnum*

Correct Answer:- Option-A

Question62:-What is Protonema?

A:-Young gametophyte of Funaria

B:-Gametophyte of Pteris

C:-Cup shaped vegetative structure of Funaria

D:-Sterile appendage in anthridial branch of Funaria

Correct Answer:- Option-A

Question63:-Stomium and Annulus are parts of

A:-Sporogonium of Riccia

B:-Capsule of Funaria

C:-Sporangium of Pteris

D:-Antheridium of Pteris

Correct Answer:- Option-C

Question64:-Function of transfusion tissue in Cycas

A:-Storage

B:-Conduction

C:-Resin secretion

D:-Hosting algal cells

Correct Answer:- Option-B

Question65:-Veterinary drug which caused massive death of vultures in South Asia

A:-Ampicillin

B:-Paracetamol

C:-Aspirin

D:-Diclofenac

Correct Answer:- Option-D

Question66:-Chemical which causes Blue Baby Syndrome

A:-Mercury

B:-Cadmium

C:-Carbonate

D:-Nitrate

Correct Answer:- Option-D

Question67:-Fly ash is

A:-Waste from incinerators

B:-Waste from thermal power plant

C:-Ash from industrial furnace

D:-Ash from Petroleum

Correct Answer:- Option-B

Question68:-Black Dammer is obtained from

A:-*Vateria indica*

B:-*Strychnos nux vomica*

C:-*Canarium strictum*

D:-*Pinus roxburghii*

Correct Answer:- Option-C

Question69:-Cyathium inflorescence is a character of the family

A:-Apiaceae

B:-Asteraceae

C:-Podostemaceae

D:-Euphorbiaceae

Correct Answer:- Option-D

Question70:-Lemon is an example for

A:-Drupe

B:-Hesperidium

C:-Berry

D:-Pome

Correct Answer:- Option-B

Question71:-A fibre yielding plant

A:-*Rubus fruticosus*

B:-*Melothria pendula*

C:-*Cassia angustifolia*

D:-*Linum usitatissimum*

Correct Answer:- Option-D

Question72:-Gymnosperms dont have

A:-Tracheids

B:-Sclereids

C:-Vessels

D:-Companion cells

Correct Answer:- Option-C

Question73:-The specific functions of the plasma membrane, including selective transport of molecules and cell-cell recognition, are carried out by

A:-Phosphatidylcholine

B:-Membrane Proteins

C:-Phosphatidylserine

D:-Sphingomyelin

Correct Answer:- Option-B

Question74:-Which of the following crosses can be used to identify whether an organism exhibiting a dominant trait is homozygous or heterozygous for a specific allele?

A:-Testcross

B:-Outcross

C:-Both (1) and (2)

D:-None of the above

Correct Answer:- Option-A

Question75:-Name the antigens present in O group blood

A:-Antigen A

B:-Antigen B

C:-Both antigens A and B

D:-No antigens

Correct Answer:- Option-D

Question76:-As per Chargaff's rule, which among the following statements are correct:

- i. Adenine can pair with Guanine
- ii. Cytosine can pair with Guanine
- iii. Adenine can pair with Thymine
- iv. Cytosine can pair with Thymine

A:-Statements i and ii

B:-Statements ii and iii

C:-Statements i and iv

D:-Statement i

Correct Answer:- Option-B

Question77:-The concept of 'Natural selection and survival of the fittest' is the major thrust area in

A:-Lamarckism

B:-Neo-Darwinism

C:-Darwinism

D:-Mutation Theory

Correct Answer:- Option-C

Question78:-Which of the following statements are true with regard to the phenomenon of guttation through hydathodes?

- i. Guttation is mostly driven by root pressure.
- ii. Guttation can happen when the stomata are closed.
- iii. Guttation can happen when the humidity is high.

iv. Guttation is used to detoxify plant tissues by exporting excessive salts or molecules.

A:-Statements i and ii only

B:-Statements ii and iii only

C:-Statements iii and iv only

D:-All the four statements are correct

Correct Answer:- Option-D

Question79:-Light reaction of photosynthesis happens in

A:-Grana of chloroplast

B:-Stroma of chloroplast

C:-Chloroplast membrane

D:-None of the above

Correct Answer:- Option-A

Question80:-Which among the following will be the respiratory substrate if the Respiratory Quotient is 1?

A:-Protein

B:-Carbohydrate

C:-Lipids

D:-Organic acids

Correct Answer:- Option-B

Question81:-Which one of the following cannot promote nitrogen fixation in its free-living state?

A:-*Anabaena*

B:-*Azotobacter*

C:-*Kelbsiella*

D:-*Clostridium*

Correct Answer:- Option-A

Question82:-Which among the following is not an aliphatic amino acid?

A:-Leucine

B:-Alanine

C:-Glycine

D:-Phenylalanine

Correct Answer:- Option-D

Question83:-If 'C' is a cybrid of 'A' and 'B', then

A:-The nucleus of 'C' will be that of earlier 'A' or 'B' and the cytoplasm will be a hybrid of 'A' and 'B'

B:-The nucleus of 'C' will be a hybrid of 'A' and 'B' and the cytoplasm will be that of earlier 'A' or 'B'

C:-The nucleus and cytoplasm of 'C' will be hybrid of 'A' and 'B'

D:-None of the above

Correct Answer:- Option-A

Question84:-Type II Restriction endonuclease enzymes will

A:-Cleave at sites away from the recognition site

B:-Cleave within or at short specific distances from the recognition site

C:-Cleave at sites 25-27 bp from the recognition site

D:-Cleave close to or within the recognition sequence

Correct Answer:- Option-B

Question85:-Which among the following is not an advantage in RAPD technique?

A:-Does not require any specific knowledge of the DNA sequence of the target organism

B:-All RAPD markers are dominant

C:-Both (1) and (2)

D:-None of the above

Correct Answer:- Option-B

Question86:-Which among the following is not involved in the production of Single Cell Proteins?

A:-*Oedogonium abbreviatum*

B:-*Spirulina maxima*

C:-*Chlorella pyrenoidosa*

D:-*Scenedesmus acutus*

Correct Answer:- Option-A

Question87:-Which is the estimated size of human genome in base pairs?

A:-12 million

B:-97 million

C:-3 billion

D:-1 billion

Correct Answer:- Option-C

Question88:-Identify the method which is not a vegetative propagation method.

A:-Budding

B:-Hybridization

C:-Layering

D:-Grafting

Correct Answer:- Option-B

Question89:-Sharbati Sonora is a mutated Mexican dwarf variety of the crop

A:-Rice

B:-Sugarcane

C:-Wheat

D:-Green gram

Correct Answer:- Option-C

Question90:-Raphanobrassica is a hybrid between

A:-Radish and Cabbage

B:-Radish and Carrot

C:-Radish and Tomato

D:-Radish and Potato

Correct Answer:- Option-A

Question91:-Which of the following best defines polyclonal seed germination in rubber cultivation?

A:-Germination of seeds produced through self-pollination between genetically identical rubber trees.

B:-Propagation of rubber trees from seeds resulting from controlled cross-pollination between genetically diverse parent trees.

C:-Cultivation of rubber trees from seeds generated through gamma radiation-induced mutations.

D:-Selection of seeds based on specific genetic traits to enhance latex yield in rubber plants.

Correct Answer:- Option-B

Question92:-Which of the following is considered the best vegetative propagation method in rubber cultivation?

A:-Cutting

B:-Layering

C:-Bud grafting

D:-Approach grafting

Correct Answer:- Option-C

Question93:-Which of the following best describes the function of the latex vessel ring in rubber trees?

A:-Facilitating water transport from roots to leaves.

B:-Serving as a storage site for latex production.

C:-Regulating the flow of latex during tapping.

D:-Protecting the inner bark from damage.

Correct Answer:- Option-C

Question94:-What does IRRDB stand for in the context of rubber cultivation?

- A:-International Rubber Research and Development Board
B:-Institute of Rubber Research and Development Bureau
C:-International Rubber Research and Development Bureau
D:-Institute of Rubber Research and Development Board
Correct Answer:- Option-A

Question95:-What is the common intermediate compound produced during the synthesis of Hevea rubber?

- A:-Isopentenyl diphosphate (IDP)
B:-Squalene
C:-Mevalonic acid
D:-Farnesyl pyrophosphate (FPP)
Correct Answer:- Option-A

Question96:-Which of the following types of tapping knives is most commonly used for rubber tapping?

- A:-Budding knife
B:-Machete
C:-Jebong knife
D:-Bush knife
Correct Answer:- Option-C

Question97:-What does TPD stand for in the context of rubber tapping?

- A:-Tapping Procedure Development
B:-Total Production Data
C:-Tapping Panel Dryness
D:-Tree Productivity Duration
Correct Answer:- Option-C

Question98:-Which of the following fungi is primarily responsible for causing powdery mildew in rubber trees?

- A:-*Colletotrichum gloeosporioides*
B:-*Oidium heveae*
C:-*Phytophthora palmivora*
D:-*Fusarium oxysporum*
Correct Answer:- Option-B

Question99:-Besides latex and timber, what other product can be harvested from rubber trees to generate additional income?

- A:-Rubber tree resin
B:-Rubber tree bark for medicinal use
C:-Honey from rubber tree flowers

D:-Rubber leaves for composting

Correct Answer:- Option-C

Question100:-What are root trainers in the context of rubber biology?

A:-Devices used for tapping latex from rubber trees

B:-Structures designed to support the growth of rubber tree roots

C:-Tools for applying fertilizers to rubber trees

D:-Containers used for propagating rubber tree seedlings

Correct Answer:- Option-D