FINAL ANSWER KEY

Question1:-The concept of Directive Principles of State Policy in Indian Constitution was borrowed from
    A:-Britain
    B:-Ireland
    C:-Canada
    D:-Russia
    Correct Answer:- Option-B
Question2:-Which Articles of Indian Constitution was described as 'heart and soul of Indian Constitution'?
    A:-Article 28
    B:-Article 29
    C:-Article 30
    D:-Article 32
    Correct Answer:- Option-D
Question3:-The Chief Legal Advisor to the Government of India is
    A:-Attorney General
    B:-Advocate General
    C:-Chief Justice of India
    D:-Comptroller and Auditor General of India
    Correct Answer:- Option-A
Question4:-Who is popularly known as the 'Father of Indian Constitution'?
    A:-K.M. Munshi
    B:-Sardar Vallabhai Patel
    C:-Jawaharlal Nehru
    D:-Dr. B.R. Ambedkar
    Correct Answer:- Option-D
Question5:-Which part of Indian Constitution has been described as the 'Magna Carta' of India?
    A:-Part III
    B:-Part IV
    C:-Part V
    D:-Part VI
    Correct Answer:- Option-A
Question6:-Who wrote the book 'envisioning an empowered nation: technology for societal transformation'?
    A:-K.R. Narayanan
    B:-A.P.J. Abdul Kalam
    C:-R. Venkita Raman
    D:-V.V. Giri
    Correct Answer:- Option-B
Question7:-The founding father of Modern Singapore
    A:-Goh Chok Tong
    B:-Lee Hsien Loong
    C:-Mao Zedong
    D:-Lee Kuan Yew
    Correct Answer:- Option-D
Question8:-Which city will host the 2016 World Summer Olympics?
    A:-Rio de Janeiro
    B:-Tokyo
    C:-Beijing
    D:-London
    Correct Answer:- Option-A
Question9:-The first Vice Chairman of newly constituted NITI Aayog was
    A:-Narendra Modi

B:-Arvind Panagariya

C:-Arun Jaitley

D:-Suresh Prabhu

Correct Answer:- Option-B

Question10:-The Good Will Ambassador of 35th National Games in India

A:-P.T. Usha

B:-Anju Bobby George

C:-Sachin Tendulkar

D:-Preeja Sreedharan

Correct Answer:- Option-C

Question11:-The famous Kallumala agitation for social freedom was organized under the leadership of

A:-Sree Narayana Guru

B:-Chattampi Swamikal

C:-Thycaud Ayya Vaikundar

D:-Ayyankali

Correct Answer:- Option-D

Question12:-The social reformer who organized 'misra-bhojanam' (interdining) for eradicating the evils of caste system was

A:-Sahodaran Ayyappan

B:-Brahmananda Sivayogi

C:-Vagbhadananda

D:-Kumaraguru

Correct Answer:- Option-A

Question13:-The 'Savarna Jatha' related to Vaikam Satyagraha was organized under the leadership of

A:-T.K. Madhavan

B:-Mannath Padmanabhan

C:-K. Kelappan

D:-C.V. Kunhiraman

Correct Answer:- Option-B

Question14:-Who founded 'Samatva Samajam' one of the earliest social organization of Kerala?

A:-Swamy Vagbhatananda

B:-Pokayil Yohannan

C:-Pandit K.P. Karuppan

D:-Vaikunta Swami

Correct Answer:- Option-D

Question15:-The ruler of Travancore who issued the famous Temple Entry Proclamation

A:-Swathi Thirunal Rama Varama

B:-Sree Chitra Thirunal Balarama Varama

C:-Sree Moolam Thirunal

D:-Visakham Thirunal Rama Varama

Correct Answer:- Option-B

Question16:-The first annual session of S.N.D.P. Yogam held at

A:-Sivagiri

B:-Cherai

C:-Aruvipuram

D:-Paravur

Correct Answer:- Option-C

Question17:-The founder of Islam Dharma Paripalana Sangham was

A:-Vakkom Abdul Khadar Maulavi

B:-Vaikom Muhammad Basheer

C:-Rama Krishna Pillai

D:-Makthi Thangal

Correct Answer:- Option-A

Question18:-Who published 'Rajya Samacharam' the first newspaper in Malayalam Language?

A:-Rev. Benjamin Bailey

B:-Fr. Muller

C:-Dr. Herman Gundert

D:-Rev. George Marthen

Correct Answer:- Option-C

Question19:-Who wrote the historical novel 'Rama Raja Bahadur'?

A:-A.R. Raja Raja Varma
B:-C.V. Raman Pillai
C:-K.M. Panikkar
D:-Oyyarathu Chandu Menon
Correct Answer:- Option-B

Question20:-Who hailed Akkamma Cheriyan as 'The Jhansi Rani of Travancore'?
A:-M.K. Gandhi
B:-B.G. Tilak
C:-Bipin Chandra Pal
D:-Jawaharlal Nehru
Correct Answer:- Option-A

Question21:-Which of the following is a trifunctional monomer?
A:-Propylene
B:-Butadiene
C:-Glycerol
D:-Glycol
Correct Answer:- Option-C

Question22:-Polymer molecular weight is equal to repeat unit molecular weight times n, where n is
A:-Degree of polymerization
B:-Functionality
C:-Molecular weight distribution
D:-Extent of polymerization
Correct Answer:- Option-A

Question23:-Below the glass transition temperature the free volume is
A:-Maximum
B:-Zero
C:-One
D:-Minimum
Correct Answer:- Option-D

Question24:-Which of the following is a first order process?
A:-Solidification
B:-Vapourization
C:-Melting
D:-All of these
Correct Answer:- Option-D

Question25:-Glass transition temperature of polyisoprene is
A:-Below room temperature
B:-Above room temperature
C:-Zero
D:-None of these
Correct Answer:- Option-A

Question26:-A SBR is an example of
A:-Graft copolymer
B:-Random copolymer
C:-Block copolymer
D:-Homopolymer
Correct Answer:- Option-B

Question27:-Hilderbrand is the unit of
A:-Flory interaction parameter
B:-Enthalpy
C:-Solubility parameter
D:-None of these
Correct Answer:- Option-C

Question28:-For a polymer prepared by free radical polymerization
A:-$M_w > M_n$
B:-$M_w < M_n$
C:-$M_z < M_n$
D:-$M_n = M_w = M_z$
Correct Answer:- Option-A

Question29:-Polydispersity index is said to be 1 when
        A:-Mw = Mn
        B:-Mw > Mz
        C:-Mz > Mz+1
        D:-None of these
        Correct Answer:- Option-A
Question30:-In emulsion polymerization technique, the polymerization takes place in
        A:-Water phase
        B:-Monomer phase
        C:-Water/Monomer interphase
        D:-Micelle
        Correct Answer:-Question Cancelled
Question31:-Thermoplastic polyurethane is a
        A:-Thermoplastic
        B:-Elastomer
        C:-Thermoplastic elastomer
        D:-Thermoset
        Correct Answer:- Option-C
Question32:-For EPDM the unsaturation is in the
        A:-Main chain
        B:-Branches
        C:-Pendent groups
        D:-All of these
        Correct Answer:- Option-C
Question33:-The monomers of butyl rubber are
        A:-Butadiene and isoprene
        B:-Butadiene and 1-butene
        C:-Isoprene and 1-butene
        D:-None of these
        Correct Answer:- Option-D
Question34:-The property that is lowered by increasing CN content of NBR is
        A:-Oil resistance
        B:-Low temperature flexibility
        C:-High temperature resistance
        D:-None of these
        Correct Answer:- Option-B
Question35:-The EPM is not cured by
        A:-Sulphur
        B:-Peroxide
        C:-Radiation
        D:-Oxime
        Correct Answer:- Option-A
Question36:-Fluorocarbons are known for
        A:-High temperature resistance
        B:-Ozone resistance
        C:-Oil resistance
        D:-All of these
        Correct Answer:- Option-D
Question37:-Nylon 66 melts at (deg C)
        A:-219
        B:-249
        C:-269
        D:-289
        Correct Answer:- Option-C
Question38:-In unsaturated polyester the monomer that is commonly used to give crosslinking sites is
        A:-Fumaric acid
        B:-Terephthalic acid
        C:-Itaconic acid
        D:-Maleic anhydride

Correct Answer:- Option-D

Question39:-Neoprene is commonly cured with
    A:-Sulphur
    B:-Metal oxide
    C:-Peroxide
    D:-Radiation
    Correct Answer:- Option-B

Question40:-An example of amorphous polymer is
    A:-UPVC
    B:-PMMA
    C:-Polystyrene
    D:-All of these
    Correct Answer:- Option-D

Question41:-For polymer containing OH group a major absorption peak is expected at (wave number)
    A:-3400
    B:-3000
    C:-2450
    D:-1700
    Correct Answer:- Option-A

Question42:-Which of the following is commonly use to estimate crystallinity?
    A:-NMR
    B:-TGA
    C:-X ray
    D:-TMA
    Correct Answer:- Option-C

Question43:-Tan delta is defined as
    A:-Loss modulus / storage modulus
    B:-Storage modulus / loss modulus
    C:-Logarithmic decay / phase angle
    D:-Phase angle / storage modulus
    Correct Answer:- Option-A

Question44:-The angle of oscillation in MDR is (degrees)
    A:-2.0
    B:-0.2
    C:-3.0
    D:-360
    Correct Answer:-Question Cancelled

Question45:-Resilience is inversely related to
    A:-Compression set
    B:-Heat build up
    C:-Tension set
    D:-All of these
    Correct Answer:- Option-B

Question46:-Tear strength is optimum at
    A:-Optimum cure
    B:-Slight under cure
    C:-Slight over cure
    D:-None of these
    Correct Answer:- Option-B

Question47:-A high value of tan delta indicates
    A:-good traction
    B:-good mileage
    C:-low heat build up
    D:-All of these
    Correct Answer:- Option-A

Question48:-Which rubber gives high tear resistance?
    A:-PBD
    B:-SBR
    C:-IIR

D:-NR

Correct Answer:- Option-D

Question49:-A DSC can measure

A:-Heat capacity

B:-Glass transition temperature

C:-Melting point

D:-All of these

Correct Answer:- Option-D

Question50:-Compression set at constant stress is measured using

A:-Constant load

B:-Constant strain

C:-Variable strain

D:-Variable temperature

Correct Answer:-Question Cancelled

Question51:-A parison is used in

A:-Blow moulding

B:-Transfer moulding

C:-Compression moulding

D:-None of these

Correct Answer:- Option-A

Question52:-PET is not used in extrusion blow moulding because

A:-High viscosity

B:-High die swell

C:-Low melt strength

D:-Shark skin effect

Correct Answer:- Option-C

Question53:-Which of the following is amenable to reaction injection moulding?

A:-PET

B:-TPU

C:-NYLON

D:-PU

Correct Answer:- Option-D

Question54:-RRIM is used when

A:-Good strength is needed

B:-Fast reaction is needed

C:-High volume output is needed

D:-None of these

Correct Answer:- Option-A

Question55:-In a two roll mill the shear rate is adjusted by

A:-reducing nip gap

B:-increasing roll speed ratio

C:-both of these

D:-none of these

Correct Answer:- Option-C

Question56:-The effect of roll bending in calendaring operation is reduced by

A:-Roll crossing

B:-Roll crowning

C:-Roll bending

D:-All of these

Correct Answer:- Option-D

Question57:-The role of a plug in a plug-assisted thermoforming is to help

A:-Maintain uniform thickness

B:-Permit deep drawing

C:-Both of these

D:-None of these

Correct Answer:- Option-C

Question58:-In a Banbury the rotors can be

A:-Intermeshing

B:-Non-intermeshing

C:-Both of these

D:-None of these

Correct Answer:-Question Cancelled

Question59:-Which of the following is not good for thermoforming?

A:-PP

B:-PE

C:-PF

D:-PS

Correct Answer:- Option-C

Question60:-Which of the following is the best for uniform filler dispersion?

A:-Two roll mill

B:-Banbury

C:-Intermix

D:-Kneader

Correct Answer:- Option-A

Question61:-Viscosity has the unit

A:-Pa. S

B:-N / sq. m

C:-Mpa

D:-dN.m.s

Correct Answer:- Option-A

Question62:-Decrease of viscosity with increasing shear rate is known as

A:-Newtonian behaviour

B:-Bingham plastics

C:-Dilatant behaviour

D:-Pseudoplastic behaviour

Correct Answer:- Option-D

Question63:-The unit of shear rate is

A:-meter per second

B:-Per second

C:-meter per second square

D:-Newton per second

Correct Answer:- Option-B

Question64:-Yield stress is shown by

A:-Pseudoplastic materials

B:-Dilatant materials

C:-Bingham plastics

D:-Newtonian liquids

Correct Answer:- Option-C

Question65:-Thixotropy is associated with reduction in viscosity

A:-With time at constant shear rate

B:-With shear rate

C:-With time and shear rate

D:-With shear stress

Correct Answer:- Option-A

Question66:-In rheology relaxation time is defined as

A:-Viscosity / modulus

B:-Modulus / yield stress

C:-Time for 50% reduction in viscosity

D:-Time for extrudate to recover

Correct Answer:- Option-A

Question67:-Bagley correction is done to account for

A:-Exit effect

B:-Slip at wall

C:-Stick-slip effect

D:-Entry effect

Correct Answer:- Option-D

Question68:-Apparent shear rate for a capillary flow is related to

A:-Volume flow rate and l/d ratio

B:-Volume flow rate and capillary diameter

C:-Shear stress and capillary diameter

D:-None of these

Correct Answer:- Option-B

Question69:-In an isometric creep curve

A:-Stress is plot against strain

B:-Strain is plotted against time

C:-Stress is plotted against log time

D:-Strain is plotted against log time

Correct Answer:- Option-C

Question70:-Which of the following involves the use of a rotor?

A:-MDR

B:-Mooney viscometer

C:-Rubber process analyzer

D:-All of these

Correct Answer:- Option-B

Question71:-The ply angle in radial tyres is close to _____ degrees.

A:-37

B:-45

C:-55

D:-90

Correct Answer:- Option-D

Question72:-Which of the following is a slow accelerator?

A:-DPG

B:-MBS

C:-MBTS

D:-MBT

Correct Answer:- Option-A

Question73:-Caprolactam disulphide is a

A:-Activator

B:-Monomer

C:-Sulphur donor

D:-Accelerator

Correct Answer:- Option-C

Question74:-Chemical mastication is operational after (deg. Centigrade)

A:-100

B:-120

C:-140

D:-150

Correct Answer:- Option-B

Question75:-Transmissibility is defined as

A:-Output amplitude / input amplitude

B:-Output frequency / input frequency

C:-Loss modulus / storage modulus

D:-None of these

Correct Answer:- Option-A

Question76:-For good vibration isolation

A:-Transmissibility must be > 1

B:-Natural frequency must be high

C:-Natural frequency must be low

D:-Damping must be high

Correct Answer:- Option-C

Question77:-DBP number is used to measure

A:-C black particle size

B:-C black surface area

C:-Surface functional group

D:-C black structure

Correct Answer:- Option-D

Question78:-BET method uses _____ gas to measure surface area.

A:-Oxygen

B:-Helium

C:-Nitrogen

D:-Argon

Correct Answer:- Option-C

Question79:-Si 69 is a

A:-Coupling agent

B:-Bonding agent

C:-Tackifier

D:-None of these

Correct Answer:- Option-A

Question80:-Azodicarbonamide is a

A:-Accelerator

B:-Blowing agent

C:-Peptizer

D:-Activator

Correct Answer:- Option-B

Question81:-The primary criterion for choosing blend components is

A:-Tg must be same

B:-Tg must be close

C:-Cohesive energy density > 1

D:-Solubility parameter must be close

Correct Answer:- Option-D

Question82:-Blend miscibility is studied using a

A:-DMA

B:-DSC

C:-Both of these

D:-None of these

Correct Answer:- Option-C

Question83:-Anisotropy is defined as

A:-Time dependent creep

B:-Strain dependent stress relaxation

C:-Temperature dependent modulus

D:-Direction dependent properties

Correct Answer:- Option-D

Question84:-In short fiber composite extrusion, fibers are oriented circumferentially in a

A:-Diverging die

B:-Converging die

C:-Capillary die

D:-Ribbon die

Correct Answer:- Option-A

Question85:-In blends UCST stands for

A:-Unit component surface thickness

B:-Upper critical solution temperature

C:-Unifiber composite sheet thickness

D:-None of these

Correct Answer:- Option-B

Question86:-Spherulites are related to

A:-Polymer composites

B:-Polymer blends

C:-Polymer crystals

D:-Polymer coatings

Correct Answer:- Option-C

Question87:-For a 70/30 NR/PE blend which phase morphology is more probable?

A:-NR is continuous phase

B:-PE is continuous phase

C:-They form IPN

D:-NR & PE form continuous phase

Correct Answer:- Option-A

Question88:-Which one has molecular level mixing?
    A:-Blend
    B:-Composite
    C:-Alloy
    D:-All of these
    Correct Answer:- Option-C
Question89:-Which is a very commonly used fiber in tyre industry?
    A:-Nylon 6
    B:-Nylon 66
    C:-PET
    D:-Aramid
    Correct Answer:-Question Cancelled
Question90:-The membrane on rubber particles is
    A:-proteinic
    B:-lipoproteinic
    C:-phospholipoproteinic
    D:-phosphoproteinic
    Correct Answer:- Option-C
Question91:-Which of the following statements is true?
    A:-TSC > DRC
    B:-TSC < DRC
    C:-TSC = DRC
    D:-TSC-DRC < 1
    Correct Answer:- Option-A
Question92:-Mechanical stability test is done on
    A:-Latex
    B:-Unvulcanised rubber
    C:-Vulcanised rubber
    D:-Aged rubber
    Correct Answer:- Option-A
Question93:-The major metal present in sludge removed from latex is
    A:-Fe
    B:-Mg
    C:-Mn
    D:-None of these
    Correct Answer:- Option-B
Question94:-Which of the following is a VFA?
    A:-Stearic acid
    B:-Acetic acid
    C:-Palmitic acid
    D:-Oleic acid
    Correct Answer:- Option-B
Question95:-Which of the following cannot destabilize latex?
    A:-Ammonia
    B:-Acid
    C:-Metal ion
    D:-Positively charged electrode
    Correct Answer:- Option-A
Question96:-Potassium oleate is used in NR foam manufacture as
    A:-Foam stabilizer
    B:-Activator
    C:-Foam promoter
    D:-Antioxidant
    Correct Answer:- Option-C
Question97:-The foaming agent used in NR foam is
    A:-DNPT
    B:-Nitrogen
    C:-Air
    D:-All of these

Correct Answer:- Option-C

Question98:-For making thick walled dipped products the preferred method is

A:-Coacervant dipping

B:-Heat sensitised dipping

C:-Straight dipping

D:-Multiple dipping

Correct Answer:- Option-B

Question99:-In electrodeposition the rubber is deposited on

A:-Positive electrode

B:-Semi permeable membrane

C:-Negative electrode

D:-All of these

Correct Answer:- Option-A

Question100:-Average size of rubber particles in latex is

A:-0.001 micron

B:-0.01 micron

C:-0.1 micron

D:-1 micron

Correct Answer:-Question Cancelled