

FINAL ANSWER KEY

Question 139/2023/OL

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Code:

Exam: Assistant Director (Plastic)

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Department Industries and Commerce

Question1:-Which of the following is/are correct about intrinsic viscosity?

- (i) It is known as Staudinger index
- (ii) It has the reciprocal of concentration as dimension
- (iii) It is known as limiting viscosity number
- (iv) It is dynamic viscosity

A:-Only (ii) and (iii)

B:-Only (i) and (ii)

C:-Only (i) and (iii)

D:-All of the above

Correct Answer:- Option-D

Question2:-Which of the following is not correct about cationic polymerization?

- (i) Molecular weight depends on monomer concentration
- (ii) Molecular weight increases as temperature increases
- (iii) The process is exothermic
- (iv) As dielectric constant of solvent increases molecular weight increases

A:-Only (ii)

B:-Only (iv)

C:-Only (iii)

D:-Only (i) and (iii)

Correct Answer:- Option-A

Question3:-Which of the following is used as a telogen in the polymerization of bromotrifluoroethylene?

A:-Trifluoroethylene

B:-Bromotrifluoromethane

C:-Tetrafluoroethylene

D:-Carbon tetrachloride

Correct Answer:- Option-B

Question4:-Which of the following is in the correct with respect to their Tg?

A:-

Polymethylmethacrylate>Polybutylacrylate>Polyethylacrylate>Polymethacrylate

B:-

Polymethylmethacrylate>Polymethacrylate>Polybutylacrylate>Polyethylacrylate

C:-Polymethylmethacrylate>Polymethacrylate>Polyethylacrylate
>Polybutylacrylate

D:-Polymethacrylate>Polyethylacrylate
>Polybutylacrylate>Polymethylmethacrylate

Correct Answer:- Option-C

Question5:-The unit of K value in Mark-Houwink equation is

A:- cm^3/g

B:- g/cm^3

C:- $^{\circ}C$

D:-None of these

Correct Answer:- Option-A

Question6:-What is the molecular weight of polycaprolactum with degree of polymerisation 1000?

A:-134500

B:-113000

C:-119000

D:-770000

Correct Answer:- Option-B

Question7:-Which polymerization method is suitable for Polyacrylonitrile?

A:-Anionic polymerization

B:-Coordination polymerization

C:-Cationic polymerization

D:-Free radical polymerization

Correct Answer:- Option-A

Question8:-The functionality of acetylene is

A:-1

B:-2

C:-3

D:-4

Correct Answer:- Option-D

Question9:-Reference material used in NMR is

A:-Tetramethylsilane

B:-Dimethylsilane

C:-Trimethylsilane

D:-Triichloromethylsilane

Correct Answer:- Option-A

Question10:-The polymer which is used in space suit is

A:-Polyphenyleneoxide

B:-Polycarbonate

C:-Torlon

D:-Nomex

Correct Answer:- Option-D

Question11:-Which among the following have the lowest LOI?

A:-PTFE

B:-PEEK

C:-Polyacetal

D:-PVC

Correct Answer:- Option-C

Question12:-An exceptionally tough and transparent material used in heart valve and pace component is

A:-PE

B:-PC

C:-Polysulphone

D:-PMMA

Correct Answer:- Option-C

Question13:-Which among the following is a best antidegradant against metal poison?

A:-BHT

B:-DNPD

C:-ODPA

D:-PAN

Correct Answer:- Option-B

Question14:-The polymer which is used for water purification

A:-Polyacrylamide

B:-Polysulphone

C:-Polyethylene oxide

D:-Polyester

Correct Answer:- Option-A

Question15:-Which among the following is not a photo conducting polymer?

A:-Poly N-vinyl carbazole

B:-Polythiophene

C:-Polyvinylpyrene

D:-Poly 2- vinyl carbazole

Correct Answer:- Option-B

Question16:-Which polymerization technique often result low molecular weight polymer?

A:-Bulk polymerization

B:-Emulsion polymerization

C:-Suspension polymerization

D:-Solution polymerization

Correct Answer:- Option-D

Question17:-Equal number of molecules with $M_1=1000$ and $M_2=10000$ are mixed. The weight average of the resulting polymer will be

A:-9182 g mol^{-1}

B:-8970 g mol^{-1}

C:-9899 g mol^{-1}

D:-9656 g mol^{-1}

Correct Answer:- Option-A

Question18:-Which of the following is correct about GPC

- (i) Polymer molecules are separated according to their size
- (ii) It is a primary method for the determination of molecular weight
- (iii) It is used for the determination of M_n and M_w
- (iv) It is used for the determination of MWD

A:-(i), (ii) and (iii)

B:-(i), (iii) and (iv)

C:-(ii), (iii) and (iv)

D:-All of the above

Correct Answer:- Option-B

Question19:-Which of the following bonds posses highest bond energy?

A:-C-C

B:-B-O

C:-SI-O

D:-SI-N

Correct Answer:- Option-B

Question20:-Ionic polymers are used for heterogeneous catalysis because of its _____ property

A:-Ionic cross-linking

B:-Ion-exchange capability

C:-Hydrophilicity

D:-All of these

Correct Answer:- Option-B

Question21:-Natural rubber is chemically known as

A:-Cis-1,4 polyisoprene

B:-Trans-1,4 polyisoprene

C:-Cis-1,3 polyisoprene

D:-Trans-1,3 polyisoprene

Correct Answer:- Option-A

Question22:-What is the role of ammonia in latex preservation?

A:-Use as a bactericide

B:-Enhances the colloidal stability of latex

C:-Deactivates harmful metal ions

D:-All the above

Correct Answer:- Option-D

Question23:-In the latex concentration methods, which process involve only the removal of water

A:-Evaporation

B:-Electrodecantation

C:-Creaming

D:-Centrifuging

Correct Answer:- Option-A

Question24:-Which rubber among the following is used in products for which lightness of colour is important?

A:-Ribbed smoke sheets

B:-pale crepe rubber

C:-Brown and Blanket Crepes

D:-Michelin sheets

Correct Answer:- Option-B

Question25:-The rubber containing 20% to 30% of an aromatic or naphthenic process oil is called

A:-Peptized Rubber

B:-Deproteinized Natural Rubber

C:-Oil-extended Natural Rubber

D:-Tire Rubber

Correct Answer:- Option-C

Question26:-The principle of the Reclaiming processes is

A:-Vulcanization

B:-Devulcanization

C:-Creaming

D:-None of the these

Correct Answer:- Option-B

Question27:-Choose wrong statement among the following

- (i) Elastomers exhibits slow recovery after extension
- (ii) Elastomers can be vulcanised
- (iii) Elastomeric properties are affected by the Tg
- (iii) Mechanical properties of elastomers are due to cross-linked, long-chain, flexible polymer molecules.

A:-Only (i)

B:-(ii) and (iii)

C:-(iii) and (iv)

D:-(ii) and (iv)

Correct Answer:- Option-A

Question28:-The polymeric materials, which combine the processability of thermoplastics and the functional performance of vulcanised rubbers are called

A:-Thermoplastics

B:-Elastomer

C:-Thermoplastic elastomer

D:-None of these

Correct Answer:- Option-C

Question29:-Polychloroprene rubber is popularly known as

A:-Polynorbornene

B:-Neoprene

C:-Butyl rubber

D:-Nitrile rubber

Correct Answer:- Option-B

Question30:-Which synthetic rubber is also commonly known as Hypalon

A:-Styrene butadiene rubber

B:-Polychloroprene rubber

C:-Nitrile rubber

D:-Chlorosulphonated polyethylene

Correct Answer:- Option-D

Question31:-Example for flame retardant used in rubber compounding

A:-Antimony compounds

B:-Fluorocarbons

C:-Amines

D:-None of these

Correct Answer:- Option-A

Question32:-Conventional vulcanizing system containing

A:-High sulfure/accelerator ratio

B:-High accelerator/sulfur ratios

C:-Intermediate between (1) and (2)

D:-None of these

Correct Answer:- Option-A

Question33:-The additive used to improve the mixing and processing of the rubber compound is

A:-Accelerator

B:-Vulcanizing agent

C:-Processing aid

D:-Antioxidant

Correct Answer:- Option-C

Question34:-Monomers of butyl rubber are

A:-Isobutene, isoprene

B:-Isobutadiene, isoprene

C:-Isobutylene, isoprene

D:-Isobutylene, Isobutadiene

Correct Answer:- Option-C

Question35:-Blowing agents are used in the manufacture of

A:-Sponge rubber

B:-Tire tube

C:-Conveyor Belt

D:-None of these

Correct Answer:- Option-A

Question36:-Name the person who discovered vulcanization

A:-Charles Goodyear

B:-Thomas Edison

C:-Alexander Graham Bell

D:-George Washington Carver

Correct Answer:- Option-A

Question37:-EPDM stands for

A:-Ethylene propylene diene monomer

B:-Epoxidized diene monomer

C:-Enzyme protonated diene monomer

D:-Ethylene propylene natural rubber

Correct Answer:- Option-A

Question38:-Select inorganic rubber among the following

A:-Nitrile rubber

B:-Natural rubber

C:-Butyl rubber

D:-Silicon rubber

Correct Answer:- Option-D

Question39:-An example for a copolymer

A:-Nitrile rubber

B:-Natural rubber

C:-Butyl rubber

D:-Silicon rubber

Correct Answer:-**Question Cancelled**

Question40:-Tripsometer is used to determine

A:-Abrasion resistance

B:-Cure time

C:-Rebound resilience

D:-Compression set

Correct Answer:- Option-C

Question41:-How much rolling resistance should be reduced to get 1% fuel efficiency?

A:-2% to 3%

B:-3% to 5%

C:-5% to 7%

D:-7% to 9%

Correct Answer:- Option-C

Question42:-Which method is preferred to make rubber products if less heat and more pressure is required for curing?

A:-Open curing in autoclaves

B:-Water curing

C:-Hot air curing

D:-All of these

Correct Answer:- Option-B

Question43:-Which material is better if we required a short circuit temperature up to 250°C in power cables?

A:-Crosslinked polyethylene

B:-Polyvinyl chloride

C:-Fluorocarbon rubber

D:-All of these

Correct Answer:- Option-A

Question44:-Which is/are the effective method/methods to control the 'nerve' during rubber processing?

A:-Use factice

B:-Using high structure furnace black

C:-Increase filler loading

D:-All of these

Correct Answer:- Option-D

Question45:-K-value of PVC material recommended in insulating material using in low and medium voltage cables

A:-45 to 50

B:-50 to 60

C:-65 to 70

D:-70 to 75

Correct Answer:- Option-C

Question46:-Field used in injection bottle cap is

A:-Aluminium silicate

B:-Silica

C:-Barium sulphate

D:-Clay

Correct Answer:- Option-C

Question47:-Which is the preferred speed ratio of four roll calendar machine where both side topping can do?

A:-2:3:3:2

B:-2:3:2:3

C:-3:2:2:3

D:-3:2:3:2

Correct Answer:- Option-A

Question48:-Which is the optimal molar ratio of resorcinol to formaldehyde in nylon coated fabric used in rubber compound?

A:-1:1 to 1:2

B:-1:2 to 1:3

C:-1.5:1 to 1.5:2

D:-1.5:2 to 1.5:3

Correct Answer:- Option-B

Question49:-Which chemical does reduce the dissociation temperature of DNPT in MC sheet?

A:-HSR

B:-Vulcafor-F

C:-Stearic acid

D:-DEG

Correct Answer:- Option-C

Question50:-Which rubber is suitable for manufacturing inner liners for hot water washing hoses using in washing machines?

A:-Natural Rubber

B:-SBR

C:-EPDM

D:-NBR

Correct Answer:- Option-D

Question51:-Which among the following is/are act as heat sensitizing agent in heat sensitized latex?

A:-Ammonium sulphate

B:-Ammonium per sulphate

C:-DPG

D:-All of these

Correct Answer:- Option-D

Question52:-Which process is/are suitable for manufacturing baby soothers?

A:-Straight dipping

B:-Heat sensitized dipping

C:-Dipping by electrodeposition

D:-All of these

Correct Answer:- Option-B

Question53:-Which is using for improving flame resistance of latex foam?

A:-Zinc oxide

B:-Paraffine hydrocarbons

C:-Titanium dioxide

D:-Hydrated aluminum oxide

Correct Answer:- Option-D

Question54:-Which substance is/are added to improve pressure sensitive adhesion in latex-based adhesive?

A:-PF resin

B:-Cl resine

C:-Rosin derivatives

D:-All of these

Correct Answer:- Option-C

Question55:-Which material is widely used in latex - based paper adhesives?

A:-Cl resin

B:-Cooked starch

C:-Rosin derivatives

D:-All of these

Correct Answer:- Option-B

Question56:-Which material is widely used to make curing bags in tyre moulds?

A:-Sulphur cured IIR

B:-Resin cured IIR

C:-Di oxime cured IIR

D:-All of these

Correct Answer:- Option-B

Question57:-In hoses, if braid angle is greater than neutral then hose will have

A:-Increased length and increased diameter

B:-Increased length and decreased diameter

C:-Decreased length and increased diameter

D:-Decreased length and Decreased diameter

Correct Answer:- Option-B

Question58:-Which adhesive is generally used when moulded and vulcanized rubber piece is directly adhered on the metal parts in rubber to metal bonded products?

A:-Epoxy adhesive

B:-PU based adhesives

C:-NR latex-based adhesives

D:-Polymide adhesive

Correct Answer:- Option-A

Question59:-Which type of accelerators are generally avoided in rubber to metal bonded products?

A:-Thiurams

B:-Thiazoles

C:-Sulphenamide

D:-All of these

Correct Answer:- Option-A

Question60:-What is the role of Vulcastab L.S in casted latex products?

A:-Stabilizer

B:-Vulcanizing agent

C:-Wetting agent

D:-Antioxidant

Correct Answer:- Option-C

Question61:-Polypropylene produced commercially using a Ziegler-Natta catalyst is predominantly

A:-Atactic

B:-Syndiotactic

C:-Isotactic

D:-Crosslinked

Correct Answer:- Option-C

Question62:-The characteristics of condensation polymerization are given below

(i) Only -C-C- linkages present in the polymer structure

(ii) Use of bifunctional or polyfunctional monomers

(iii) Elimination of a small by product molecule

Which of the following is true?

A:-(i), (ii), (iii)

B:-(ii) and (iii)

C:-(i) and (ii)

D:-Only (iii)

Correct Answer:- Option-B

Question63:-As the polymer crystallinity increases, the brittleness of polymer

A:-Increases

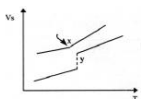
B:-Decreases

C:-Depends in length of branching in polymer

D:-Remains constants

Correct Answer:- Option-A

Question64:-Consider the following two transitions from the "solid" to the liquid or rubbery state shown below on a plot of specific volume (V_s) vs temperature (T)



A:-The transition X is Glass transition temperature (T_g) while transition Y is crystalline melting point (T_m)

B:-The transition X is crystalline melting point (T_m) while transition Y is Glass

transition temperature (T_g)

C:-X and Y are melting points, but X is the T_m of a semi-crystalline material and Y is the T_m of an almost perfect crystal

D:-X and Y are T_g (Glass transition temperatures), but X is the T_g of a semi-crystalline material and Y is the T_g of an almost perfect crystal

Correct Answer:- Option-A

Question65:-Which of the following polymers would you expect to be most suitable for the production of a rubber car bumper guard?

A:-Atactic polystyrene (T_g ~100°C)

B:-A random ethylene/propylene copolymer (50/50 composition) T_g ~40°C)

C:-Low density polyethylene

D:-High density polyethylene

Correct Answer:- Option-B

Question66:-Which of the following material is not made by injection molding?

A:-Nuts

B:-Tubes

C:-Cups

D:-Electrical fittings

Correct Answer:- Option-B

Question67:-Which one of the following is a condensation polymer?

A:-Nylon

B:-Polythene

C:-PVC

D:-Teflon

Correct Answer:- Option-A

Question68:-In blow molding, to inflate soft plastic, which medium is used?

A:-Air

B:-Water

C:-Oil

D:-Alcohol

Correct Answer:- Option-A

Question69:-Which of the following types of molecular structure are present in thermosetting polymers?

A:-Linear polymers

B:-Branched polymers

C:-Cross-linked polymers

D:-Long chain polymers

Correct Answer:- Option-C

Question70:-Which one is the natural polyamide polymer?

A:-Cotton

B:-Silk

C:-Nylon-6

D:-Jute

Correct Answer:- Option-B

Question71:-A continuous and aligned glass fiber-reinforced composite consists of 30 vol% glass fibers having a modulus of elasticity of 69 GPa and 70 vol% polyester resin that, when hardened, displays a modulus of 3.4 GPa. The modulus of elasticity of this composite in the longitudinal direction is

A:-23.1 GPa

B:-65.6 GPa

C:-42.76 GPa

D:-72.4 GPa

Correct Answer:- Option-A

Question72:-Dry spinning is a process

A:-Which is used for polymers that can be melted easily

B:-Which involves dissolving polymer in a solvent and the solution is extruded into a chemical bath

C:-Which involves dissolving the polymer into a solvent that can be evaporated

D:-Which is used only for network polymers

Correct Answer:- Option-C

Question73:-Which of the following statements about plasticizers is true?

A:-Plasticizers increase the modulus while decreasing the glass transition temperature

B:-Plasticizers decrease the modulus while increasing the glass transition temperature

C:-Plasticizers are added to increase the intermolecular forces between the chains

D:-Plasticizers are high boiling organic esters

Correct Answer:- Option-A

Question74:-For 1 inch schedule 40 PVC pipe and 1 inch schedule 80 PVC pipe which of the following statement is correct?

A:-Schedule 80 PVC pipe has a larger outside diameter than schedule 40 pipe

B:-Schedule 40 PVC pipe has a larger outside diameter than schedule 80 pipe

C:-Schedule 80 PVC pipe has a smaller inside diameter than schedule 40 pipe

D:-Schedule 40 PVC pipe has a smaller inside diameter than schedule 80 pipe

Correct Answer:- Option-C

Question75:-Select the correct option

A:-PCTFE is a thermoplastic polymer and its repeating unit is $FC_1C=CF_2$

B:-PCTFE is a thermoplastic polymer and its repeating unit is $Cl_2C=CF_2$

C:-PCTFE is a thermoplastic polymer and its repeating unit is $F_2C=CF_2$

D:-PCTFE is a thermoplastic polymer and its repeating unit is F_3C-CF_3

Correct Answer:- Option-A

Question76:-Which of the following statements is true for PVC-O pipes?

A:-PVC-O pipes are obtained by the process of molecular orientation of UPVC to obtain a layered structure

B:-PVC-O pipes are obtained by turning the layered structure of UPVC into an amorphous structure

C:-PVC-O pipes are obtained by the addition of modifying agents to PVC

D:-PVC-O pipes are obtained by adding oxygen atoms to PVC

Correct Answer:- Option-A

Question77:-Which of the following will not help in controlling the flow lines in injection molding?

A:-Increasing the injection speed, pressure and material temperature

B:-Round the corners of the mold where wall thickness increases

C:-Decrease the nozzle diameter to reduce the melt flow rate

D:-Relocation of mold gates to create more distance between them and the mold coolants

Correct Answer:- Option-C

Question78:-Overhead plastic water tanks are manufactured by _____ process

A:-Injection molding

B:-Rotomolding

C:-Compression molding

D:-Transfer molding

Correct Answer:- Option-B

Question79:-The formation of polyurethane involves chemical reaction between

A:-a di/poly isocyanate and a diol of polyol

B:-Hexamethylene diamine and methanol

C:-Hexamethylene diamine and adipic acid

D:-Terephthalic acid and ethylene glycol

Correct Answer:- Option-A

Question80:-Which of the following statements is correct?

A:-LDPE has low degrees of branching

B:-HDPE has high degree of short and long chain branching

C:-UHMWPE is made up of extremely long chains of polyethylene, which all align in the same direction

D:-UHMWPE is made up of short chains of polyethylene, which all align in the same direction

Correct Answer:- Option-C

Question81:-Which among the following test is carried out as per ASTM D 256

A:-Tensile testing

B:-Izod impact testing

C:-Tear Strength testing

D:-Vicat softening temperature

Correct Answer:- Option-B

Question82:-As per IS 532 : 2006 tension set of cycle tube shall not be more than

A:-10%

B:-12%

C:-15%

D:-20%

Correct Answer:- Option-C

Question83:-In tensile testing of a rubber sample using standard dumbbell specimen, the maximum load observed is 60 N. Find the ultimate tensile strength of the gauge length of specimen = 200mm, thickness of specimen = 2mm and the width of specimen at narrow portion = 633

A:-5N/mm²

B:-0.05 N/mm²

C:-50 kg/cm²

D:-0.15 N/mm²

Correct Answer:- Option-A

Question84:-Expression for cure index (Δt_L) in a cure characteristics study using money viscometer with a large rotor is

A:- $\Delta t_L = t_{35} - t_5$

B:- $\Delta t_L = t_{18} - t_3$

C:- $\Delta t_L = t_{90} - t_2$

D:- $\Delta t_L = t_{90} - t_{35}$

Correct Answer:- Option-A

Question85:-According to BIS specification minimum mechanical stability time required for concentrated NR latex is

A:-105

B:-546

C:-475

D:-286

Correct Answer:- Option-C

Question86:-In order to find plasticity retention index samples are aged

A:-For 30 minutes at 140°C

B:-For 48 hours at 100°C

C:-For 24 hours at 140°C

D:-For 42 minute at 100°C

Correct Answer:- Option-A

Question87:-Capacitance of a capacitor made only with two metallic sheets is increased from 2 F to 5F when the gap between is filled with a polymer. Find the dielectric constant of that polymer

A:-10

B:-2.5

C:-0.4

D:-7

Correct Answer:- Option-B

Question88:-Which among the following has highest iodine adsorption number

A:-HAF

B:-SAF

C:-ISAF

D:-GPF

Correct Answer:- Option-B

Question89:-Roll deflection is observed in calendars due to

(i) The force that pulls calendar rolls apart is higher in middle and less at ends

(ii) Rolls tend to bend under its own weight

(iii) Uniformly distributed normal force from the compound

A:- (i) and (ii)

B:-(i) only

C:-(ii) only

D:-(ii) and (iii)

Correct Answer:- Option-B

Question90:-In a three roll calendar the ratio of speed of middle roll and bottom roll is 1:1.5. This calendar can be used for

A:-Frictioning

B:-Topping

C:-Spreading

D:-None of the above

Correct Answer:- Option-A

Question91:-Compression ratio that can be used for rigid PVC extruder is

A:-3.9:1

B:-1.2:1

C:-2.5:1

D:-10:1

Correct Answer:- Option-C

Question92:-Which method is used for the production of electric wires

A:-Vented extrusion

B:-Cross head extrusion

C:-Twin screw extrusion

D:-Blown film extrusion

Correct Answer:- Option-B

Question93:-Sink mark defect in transfer molding can be eliminated by

(i) Increasing transfer pressure

(ii) Increasing charge weight

(iii) Reducing mold temperature

A:-(i) only

B:-(i) and (ii)

C:-(ii) only

D:-(i), (ii) and (iii)

Correct Answer:- Option-D

Question94:-Which among the following gate is preferred for making solid block type injection molded articles

A:-Tab gate

B:-Film gate

C:-Ring gate

D:-Pin gate

Correct Answer:- Option-A

Question95:-Rotors of banbury are

A:-Intemeshing

B:-Non Intemeshing

C:-can be intemeshing or non intemeshing

D:-Like rolls of two roll mill

Correct Answer:- Option-B

Question96:-In compounding of rubber using two roll mill, dispersive mixing can be improved by

(i) Increasing shear rate

- (ii) Reducing gap between rolls
- (iii) homogenization

A:-(i) only

B:-(iii) only

C:-(i), (ii) and (iii)

D:-(i) and (ii)

Correct Answer:- Option-D

Question97:-Uniform thickness of extrusion blow molded articles are achieved by

- (i) Extruding parison with uniform thickness
- (ii) Applying high blowing pressure
- (iii) Parison programming

A:-(i) only

B:-(ii) and (iii)

C:-(iii) only

D:-(i), (ii) and (iii)

Correct Answer:- Option-C

Question98:-Forming temperature of polypropylene used for thermoforming is

A:-80-110°C

B:-140-165°C

C:-175-210°C

D:-Any temperature above T_g

Correct Answer:- Option-B

Question99:-Identify the combination of chemicals that can be used for RIM

A:-Hexamethylene diamine and adipic acid

B:-Terphthalic acid and ethylene glycol

C:-Poly(propylene oxide) triol and methylene diphenyl diisocyanate

D:-Ethylene oxide and diphenyl guanidine

Correct Answer:- Option-C

Question100:-Sequence of addition of compounding ingredients in early oil addition method

- (i) Elastomer
- (ii) Liquid ingredients
- (iii) Dry ingredients

A:-(i), (ii), (iii)

B:-(ii), (i), (iii)

C:-(iii), (ii), (i)

D:-(i), (iii), (ii)

Correct Answer:- Option-D