

153/2016

1. The name of process of controlled wounding on rubber tree for extraction of latex is :  
(A) Picking                      (B) Sheeting                      (C) Cutting                      (D) Tapping
2. The grade of rubber sheet which is used mainly for tyre manufacturing is :  
(A) Lot                      (B) Off grade                      (C) RSS - 1                      (D) RSS - 4
3. The name of plastic which is used for mineral water and carbonized beverage bottles :  
(A) Polythene                      (B) Poly propylene                      (C) PET                      (D) PVC
4. What is the name of fibre which is extracted from coconut husk ?  
(A) Coir                      (B) Jute                      (C) Cotton                      (D) Linen
5. \_\_\_\_\_ is a commodity plastic.  
(A) PET                      (B) Teflon                      (C) Acrylic                      (D) Polythene
6. \_\_\_\_\_ is the ISNR grade which doesn't show storage hardness.  
(A) ISNR.50                      (B) ISNR - 20                      (C) ISNR - 3                      (D) ISNR 3 CV
7. Rain gardening is used in rubber tree for \_\_\_\_\_.  
(A) Tapping in rainy season                      (B) Growing in rainy season  
(C) Organic farming in rainy season                      (D) Protect sheet rubber from rain
8. What type of printing in plastic are used for multy colour photo graphic design pictures in branded multi layer plastic sheet packets ?  
(A) Screen printing                      (B) Graviour  
(C) Flexographic printing                      (D) None of these
9. What is the scientific name of rubber yielding trees mostly cultivated in Kerala ?  
(A) Castilla elastic                      (B) Parthenium argentattum  
(C) Hevea brazeeliensis                      (D) Gagulee
10. Different types of rubber trees are called :  
(A) Genesis                      (B) Clone                      (C) Brand                      (D) Plantation

11. The origin land of rubber tree :  
 (A) Kerala (B) Brazil (C) Argentina (D) America
12. The chemical used to preserve latex :  
 (A) Ammonia (B) Acetic acid (C) Formic acid (D) Sulphuric acid
13. \_\_\_\_\_ is the acid usually used to coagulating skim rubber.  
 (A) Formic acid (B) Sulphuric acid  
 (C) Acetic acid (D) Hydrochloric acid
14. The best grade of creep rubber is :  
 (A) EBC (B) PLC (C) Sheet (D) Crumb
15. Example of a natural fibre is :  
 (A) Coir (B) Polyester (C) Nylon (D) Aramid
16. Jute is made from \_\_\_\_\_ part of the tree.  
 (A) Seeds (B) Leaf (C) Flower (D) Stem
17. \_\_\_\_\_ is the monomer of polyethylene.  
 (A)  $\text{CH}_2=\text{CH}_2$  (B)  $\text{CH}_2=\text{CH}-\text{Cl}$   
 (C)  $\text{CH}_2=\text{CHC}=\text{N}$  (D)  $\text{CH}_2=\text{CH}-\text{CH}_3$
18. \_\_\_\_\_ is the chemical name of Natural Rubber.  
 (A) Trans 1, 4 Polyisoprene (B) Cis 1, 4 Polyisoprene  
 (C) Polyisobutylene (D) Polychloroprene
19. Among the following \_\_\_\_\_ is the technically specified rubber.  
 (A) Sheet Rubber (B) Creep Rubber (C) Crump Rubber (D) Cup Lump
20. DRC of normal latex is generally in the range of \_\_\_\_\_ %.  
 (A) 1.5 - 10 (B) 10 - 15 (C) 60 - 65 (D) 30 - 35
21. Among the following which plastic is water soluble ?  
 (A) PET (B) PVC (C) PVA (D) PMMA

22. Which fibre is widely used as tyre cords ?  
(A) Coir (B) Nylon (C) Polypropylene (D) Acrylic
23. Among the following, select the component of a tyre where steel wire is usually seen :  
(A) Tread (B) Side wall (C) Bead (D) Inner liner
24. What is the full form of PVC ?  
(A) Poly Vinyl Chloride (B) Poly Vinyl Acetate  
(C) Poly Vinylene Chloride (D) Poly Vinyl Alcohol
25. Nylon - 6 is manufactured from :  
(A) Caprolactum  
(B) Adipic acid and hexamethylene diamine  
(C) Sebacic acid and hexamethylene diamine  
(D) Maleic anhydride and hexamethylene
26. Cellulose is the main constituent of most \_\_\_\_\_ fibres.  
(A) Synthetic (B) Acrylic (C) Spandex (D) Natural
27. Chloroprene Rubber is a :  
(A) Synthetic (B) Acrylic (C) Spandex (D) Natural
28. Mastication of rubber means :  
(A) Improving its curing rate  
(B) A treatment to retard its deterioration due to oxidation  
(C) Reducing viscosity  
(D) Depression of its freezing point
29. Rubber sheeting is made by :  
(A) Extrusion (B) Dipping  
(C) Injection Moulding (D) Calendering

30. \_\_\_\_\_ is a thermosetting plastic.  
(A) PVC (B) Bakelite (C) Polythene (D) Polystyrene
31. \_\_\_\_\_ is a natural fibre.  
(A) Polythene (B) Dacron (C) Nylon - 6 (D) None of these
32. Plastic tubes and pipes are generally made by \_\_\_\_\_ moulding.  
(A) injection (B) compression (C) extrusion (D) transfer
33. PMMA sheet is manufactured by :  
(A) Bulk Polymerization (B) Emulsion Polymerization  
(C) Solution Polymerization (D) Suspension Polymerization
34. \_\_\_\_\_ is a homopolymer.  
(A) Polypropylene (B) Nylon - 66 (C) Bakelite (D) Terylene
35. Synthetic lattices are made by :  
(A) Emulsion Polymerization (B) Suspension Polymerization  
(C) Solution Polymerization (D) Bulk Polymerization
36. Which of the following is an antioxidant used in rubber ?  
(A) Thiokol (B) Styrenated Phenol  
(C) Carbon (D) Magnesium
37. Iodine absorption number of Carbon Black is used to measure :  
(A) Colour (B) Density (C) Particle size (D) Structure
38. VFA of Latex is increased due to :  
(A) Ammonia (B) Antioxidant (C) Bacterial Action (D) Centrifuging
39. If accelerator is not used in a rubber compound and after heating in a press for five minutes :  
(A) It becomes under cure (B) It will not cure  
(C) It becomes over cure (D) It becomes exact cure

40. Among the following which is antiozonant ?  
(A) Wax (B) C.B.S. (C) MBTS (D) SP
41. Latex is a \_\_\_\_\_ of rubber.  
(A) Colloid (B) Gel (C) Solution (D) None of these
42. Wearing part of tyre is :  
(A) Sidewall (B) Tread (C) Bead (D) Belt
43. Nytryl is a \_\_\_\_\_ rubber.  
(A) Heat resistant (B) Chemical resistant  
(C) Aging resistant (D) Oil resistant
44. Butyl rubber is famous for :  
(A) Oil Resistance (B) Chemical Resistance  
(C) Weather Resistance (D) Gas Impermeability
45. Which resin is used for making FRP ?  
(A) PVC (B) Unsaturated Polyester resin  
(C) Saturated Polyester resin (D) None of above
46. Silica is a \_\_\_\_\_ filler.  
(A) Non-reinforcing (B) Reinforcing  
(C) Semi-reinforcing (D) Cheapening
47. Carbon black increases :  
(A) Hardness (B) Tensile strength  
(C) Modulus (D) All these properties
48. Which of the following is a copolymer ?  
(A) PVC (B) Polythene (C) Bakelite (D) Teflon

49. Optimum cure time of a rubber compound is taken from a rheograph is :  
 (A) T - 2                      (B) T - 10                      (C) T - 100                      (D) T - 90
50. As the particle size of carbon black increases; hardness :  
 (A) Increases                      (B) Decreases  
 (C) No effect                      (D) None of the above
51. Blowing agent used in Micro Cellular rubber :  
 (A) D.P.G.                      (B) T.M.T.D.                      (C) D.N.P.T.                      (D) C.B.S.
52. Which one of the following is an ultra accelerator ?  
 (A) MBT                      (B) MBTS                      (C) TMTD                      (D) ZDC
53. \_\_\_\_\_ is a flame resistant synthetic rubber.  
 (A) SBR                      (B) PBD  
 (C) Fluorocarbon rubber                      (D) Ethylene Propylene rubber
54. \_\_\_\_\_ is a special purpose synthetic rubber.  
 (A) Polybutadiene rubber                      (B) Fluorocarbon rubber  
 (C) SBR                      (D) EPR
55. Chaffer strips gives additional reinforcement to :  
 (A) Side wall area                      (B) Tread area                      (C) Bead area                      (D) Cacas fabric
56. The curing agent used for sulphur less vulcanizing system :  
 (A) TMTD                      (B) CBS                      (C) Sulphinamides                      (D) Mtelalic oxides
57. The usual PHR of Stearic acid in a hawai sole formulation is :  
 (A) 2.5                      (B) 3                      (C) 6                      (D) 30
58. HAF is produced by :  
 (A) Channel Process                      (B) Thermal Process  
 (C) Furnace Process                      (D) Lamp black Process

59. Scorch time is :
- (A) The time required to cross linking
  - (B) Total time of compounding
  - (C) Time required for a compound fully vulcanize
  - (D) Safety time before vulcanization starts
60. While improving Reinforcement of rubber compound :
- (A) Increase modulus
  - (B) Improve heat resistance
  - (C) Improve specific gravity
  - (D) Improve oil resistance
61. \_\_\_\_\_ is not reinforcing filler.
- (A) Aluminium silicate
  - (B) Silica
  - (C) Whiting
  - (D) Carbon black
62. Reclaimed rubber is produced from :
- (A) Rubber compound
  - (B) Pre-vulcanized latex
  - (C) Ground vulcanized rubber
  - (D) Creep rubber
63. In radial tyre carcass, the cords runs at :
- (A) 45 degree to the circumstantial line
  - (B) 90 degree to the circumstantial line
  - (C) 60 degree to the circumstantial line
  - (D) 180 degree to the circumstantial line
64. Ethylene is a plastic, propylene is a plastic. But co-polymerizing ethylene and propylene we get a rubber, Ethylene Propylene rubber; the reason being :
- (A) All are crystalline
  - (B) All are amorphous
  - (C) Ethylene propylene is amorphous and others are crystalline
  - (D) Ethylene propylene is crystalline and others are amorphous
65. The speed ratio of a lab size mixing mill rollers is :
- (A) 1 : 1.9
  - (B) 1 : 2
  - (C) 1 : 1.2
  - (D) 1 : 1.3

66. The force required to produce a certain increment in extension of a vulcanised rubber specimen is called :
- (A) Modulus (B) Tensile strength  
(C) Elongation at break (D) Tear strength
67. The viscosity of the rubber compound :
- (A) increases with temperature (B) decreases with temperature  
(C) no effect (D) first increases and then reduces
68. Unvulcanised Natural Rubber is a :
- (A) Linear polymer (B) Cross linked polymer  
(C) Branched polymer (D) Co-polymer
69. Iso electric point of Natural rubber latex is :
- (A) 1 PH (B) 2 PH (C) 6.4 PH (D) 4.8 PH
70. A colloid is a :
- (A) Visco elastic form of matter  
(B) Liquid phase  
(C) Rubber particles dissolved in water  
(D) A system containing two phases; a dispersed phase and a dispersion medium
71. Smoke is \_\_\_\_\_ form of a colloid.
- (A) solid in liquid (B) solid in gas (C) gas in liquid (D) liquid in gas
72. The difference between MC sheet and Hawaii sheet :
- (A) MC has open cell structure while Hawaii has closed cell structure.  
(B) Hawaii has fully open cell structure while MC has closed cell structure.  
(C) Hawaii has inter connected cell structure while MC has closed cell structure.  
(D) Based on the specific gravity difference.



73. During vulcanisation :
- (A) Raw rubber become cross linked
  - (B) Raw rubber becomes soluble
  - (C) Raw rubber become crystalline
  - (D) The raw rubber soft
74. Give example for an cellular rubber product :
- (A) Play ball
  - (B) Automobile tube
  - (C) Tubeless tyre
  - (D) Polyurathene foam
75. Phenol formaldehyde resin is known as :
- (A) bakelite
  - (B) perspex
  - (C) teflon
  - (D) nylon - 6
76. Usually in tubeless tyres, inner liners are made of \_\_\_\_\_ rubber.
- (A) Natural
  - (B) Halo butyl
  - (C) Nitrile
  - (D) Neoprene
77. Hardness of Vulcanized Rubber is measured by :
- (A) Tensile Tester
  - (B) Dunlop Tripso meter
  - (C) Duro meter
  - (D) Rheometer
78. Neoprene is the trade name of :
- (A) Nitryl rubber
  - (B) Polychlorophrene
  - (C) Polyurethane
  - (D) Phenol formaldehyde
79. The fibres produced from \_\_\_\_\_ are known as rayon.
- (A) ethylene glycon
  - (B) lignin
  - (C) polyamides
  - (D) cellulose
80. Visco-elastic behaviour exhibited by polymers is a \_\_\_\_\_ like behaviour.
- (A) liquid
  - (B) combination of solid and liquid
  - (C) combination of gas and solid
  - (D) solid

81. Which among the following article of the Indian constitution provides protection against the arbitrary arrest and detention ?  
 (A) Article 12 (B) Article 22 (C) Article 27 (D) Article 32
82. Who propounded the 'Drain of Wealth' Theory ?  
 (A) A.O. Hume (B) Gopalala Krishna Gokhale  
 (C) Dadabhai Naoroji (D) Mahatma Gandhi
83. Which among the following states were party of the Cauvery Water disputes ?  
 (A) Kerala - Karnataka (B) Tamil Nadu - Andhra Pradesh  
 (C) Karnataka - Maharashtra (D) Tamil Nadu - Karnataka
84. Who gave shape to a fairly ambitious education policy in Travancore ?  
 (A) Diwan. Sheshayya Shastri (B) Diwan. T. Madhava Rao  
 (C) Diwan. Nanoo Pillai (D) Diwan T. Rama Rao
85. Where was Sahodaran Ayyappan organised a *misra bhojanam* (a grand feast of all castes sitting together under one roof) in 1917 ?  
 (A) Cherayi (B) Panniyankara (C) Chittoor (D) Olavakkode
86. Who was officially inaugurated the Paliyam Satyagraha on 4<sup>th</sup> December 1947 ?  
 (A) A.K. Gopalan (B) C. Kesavan (C) Arya Pallam (D) P. Priyadatta
87. Who was the Prime Minister of Madras at the time of Malabar Temple entry proclamation was made ?  
 (A) T. Prakasham (B) C. Rajagopalachari  
 (C) K.V. Reddy Naidu (D) Ramakrishna Ranga Rao
88. Which among the following journal was known *Ezhava Gazette* ?  
 (A) Bhashaposhini (B) Mithavadi (C) Vivekodayam (D) Prabhatam
89. Which was the first drama staged by Kerala People's Arts Club (KPAC) in 1951 ?  
 (A) Ente Makanau Sari (B) Ningalenne Communistakki  
 (C) Mudiyanaya Puthran (D) Puthiya Akasam Puthiya Bhumi

90. Who was the 12<sup>th</sup> President of the Travancore State Congress ?  
 (A) A.V. Kuttimalu Amma (B) Lalitha Prabhu  
 (C) Akkamma Cheriyan (D) Anna Chandi
91. Who described Dr. Palpu as the "Political Father" of Ezhavas ?  
 (A) Sree Narayana Guru (B) Kumaran Asan  
 (C) Ritty Lukose (D) K. Kelappan
92. Who wrote the famous work "G.P. Pillai : Mahatma Gandhikku Margadersiyaya Malayali" ?  
 (A) Sachidanandan (B) Malayankeezhu Gopalakrishnan  
 (C) T. Padmanabhan (D) Panmana Ramachandran Nair
93. Who was the founder of the Kerala Pulayar Maha Sabha ?  
 (A) Ayyankali (B) Vellikara Chothi  
 (C) Pokkan Master (D) P.K. Chathan Master
94. Who established the Bhashaposhini Sabha ?  
 (A) Kandathi Varghese Mappillai (B) O.M. Cheriyan  
 (C) K.C. Kesavan Pillai (D) C.S. Subramaniam Potti
95. In which year S.K. Pottakkad won the Jnanpith Award for his novel 'Oru Desathinte Katha' ?  
 (A) 1976 (B) 1978 (C) 1980 (D) 1981
96. Which among the following period was declared as the United Nations decade for Women by the General Assembly ?  
 (A) 1976 - 1985 (B) 1981 - 1990 (C) 1983 - 1992 (D) 1986 - 1995
97. What is the original name of Daya Bai, the social activist from Kerala working for the upliftment of the tribals in Central India ?  
 (A) Sarala Devi (B) Mercy Mathew (C) Margret X'avier (D) Sakuntala Devi

98. Where is the famous Bandhavgarh National Park situating ?  
(A) Uttarakhand (B) Assam  
(C) Karnataka (D) Madhya Pradesh
99. Who was the youngest male to swim the English channel in 1998 ?  
(A) Tom Gregory (B) Kevin Murphy (C) John Erikson (D) Mihir Sen
100. Which is the capital of Barbodos ?  
(A) Santo Domingo (B) Delmas (C) Bridgetown (D) Ponce

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