PREVIOUS YEAR PAPER

DSSSB Technical Assistant (Plastic) 2021 — 18 November 2021, Shift 2

DSSSB Other Posts · 18 November 2021 · Shift 2

136 of the paper's 200 questions · +1 for a correct answer, −0.25 for a wrong one · 120 minutes

Left out of the original paper: 64 (any question that needs a figure, a symbol or formatting we cannot show, or whose text did not read back cleanly from the booklet).

Questions from the Delhi Subordinate Services Selection Board's paper of 18 November 2021, Shift 2. Each question is followed by its answer, and the answer key is repeated on the last page.

Take it as a timed practice test: exambharo.com/dsssb-other-posts/previous-year-papers/dsssb-other-posts-2021-technical-assistant-plastic-18-nov-shift-2/

General Ability

1. Select the letter-cluster from among the given options that can replace the question mark (?) in the following series.
MCVH, RVCC, WCVX, BVCS, ?

(a) GVCN
(b) WCVX
(c) GCVN
(d) WVCX

Answer: (c)

2. Identify the letter-cluster that does NOT belong to the following series.
HWLR, CZEX, XCWD, SFQJ, NIJP, ILCV

(a) SFQJ
(b) XCWD
(c) NIJP
(d) ILCV

Answer: (b)

3. Four words have been given, out of which three are alike in some manner and one is different. Select the word that is different.

(a) Cackle
(b) Yelp
(c) Pony
(d) Growl

Answer: (c)

4. Select the option that is related to the third term in the same way as the second term is related to the first term.
BLAST : ABLST :: MOULD : ?

(a) DLMOU
(b) UOMLD
(c) DLOMU
(d) DOLUM

Answer: (a)

5. Four words have been given, out of which three are alike in some manner and one is different. Select the word that is different.

(a) Amiable
(b) Surly
(c) Polite
(d) Cordial

Answer: (b)

6. In a certain code language, 'MAGIC' is written as 'ACIGM'. How will 'CUBOID' be written in that language?

(a) UIOCBD
(b) BCUDIO
(c) BCDIOU
(d) UOIBCD

Answer: (c)

7. In a certain code language, 'GROUP' is cod[illegible]16'.How will 'LOGIC' be coded in that language?

(a) 179
(b) 178
(c) 187
(d) 197

Answer: (b)

8. Aloksinha is the son of Ompraksh's father's sister. Dilshan is the son of Mayuri, who is the mother of Murali and grandmother of Ompraksh.
Kishore is the father of Soumya and grandfather of Aloksinha. Mayuri is the wife of Kishore.
Ompraksh is the nephew of Soumya, who is the only daughter of her parents.
How is Ompraksh related to Kishore?

(a) Son
(b) Nephew
(c) Father
(d) Grandson

Answer: (d)

9. (i) Alok, Bidan, Chaitu, Divija, Emiya, Falgun and Giri are sitting around a circle, facing the centre.
(ii) Giri is second to the left of Chaitu, who is to the immediate left of Falgun.
(iii) Alok is third to the left of Emiya.
(iv) Bidan is between Divija and Emiya.
Which of the following statements is FALSE?

(a) Alok is fourth to the right of Emiya.

(b) Giri is to the immediate right of Divija.

(c) Falgun is third to the right of Divija.

(d) Bidan is to the immediate left of Divija.

Answer: (c)

10. Read the given statements and conclusions carefully. Assuming that the information given in the statements is true, even if it appears to be at variance with commonly known facts, decide which of the given conclusions logically follow(s) from the statements.
Statements:
No tree is a canal.
No sword is a tree.
Conclusions:
I. No canal is a sword.
II. All swords are canals.

(a) Only conclusion I follows

(b) Only conclusion II follows

(c) Both conclusions I and II follow

(d) Neither conclusion I nor II follows

Answer: (d)

11. Read the given statements and conclusions carefully. Assuming that the information given in the statements is true, even if it appears to be at variance with commonly known facts, decide which of the given conclusions logically follow(s) from the statements.
Statements:
All tubes are clouds.
No cloud is a soap.
No board is a soap.
Conclusions:
I. No tube is a bottle.
II. All boards being clouds is a possibility.

(a) Only conclusion I follows

(b) Only conclusion II follows

(c) Both conclusions I and II follow

(d) Either conclusion I or II follows

Answer: (b)

12. Which two signs should be interchanged in the following equation to make it correct?
182 ÷ 14 × 5 – 100 + 156 = 9

(a) × and –

(b) + and÷

(c) + and–

(d) × and ÷

Answer: (c)

13. Select the number from among the given options that can replace the question mark (?) in the following series.
4, 7, 16, 41, 94, 251, ?

(a) 468

(b) 568

(c) 486

(d) 586

Answer: (b)

15. Kamala walked 80 metres towards the north to reach a bus stand. Then she took a left turn and walked 40 metres to reach the library circle. She again took a left turn and walked 80 metres to reach her college. How far and in which direction is she from the starting point?

(a) 40 metres,West

(b) 40 metres, East

(c) 30 metres, North

(d) 30 metres, South

Answer: (a)

16. Arunima starts from her home and travels 2 km eastwards to reach a bakery, and then turns left and travels thrice that distance to reach a church.
She again turns left and travels five times the distance she covered between her home and bakery and reaches the office. The shortest distance between her home and the office is:

(a) 10 km

(b) 12 km

(c) 14 km

(d) 16 km

Answer: (a)

General Awareness

21. The Sewing machine was invented by a person named:

(a) Walter Hunt

(b) John Gorrie

(c) Barthelemy Thimonnier

(d) Elias Howe

Answer: (c)

22. Milk of magnesia is also known as:
    (a) magnesium carbonate
    (b) magnesium chloride
    (c) magnesium hydroxide
    (d) magnesium sulphate

    Answer: (c)

23. Which of the following units is equal to 6 feet?
    (a) 1 fathom
    (b) 1 decibel
    (c) 1 kilometre
    (d) 1 centimetre

    Answer: (a)

24. Which of the following neighbouring countries shares its boundary with the Indian state Sikkim?
    (a) Pakistan
    (b) Bhutan
    (c) Bangladesh
    (d) Maldives

    Answer: (b)

25. Which type of soil develops on crystalline igneous rocks in areas of low rainfall in the eastern and southern part of the Deccan Plateau?
    (a) Alluvial soils
    (b) Arid soils
    (c) Red soils
    (d) Black soils

    Answer: (c)

26. Akbar was married to Harkha Bai, daughter of Rajput ruler:
    (a) Jai Singh I
    (b) Bhagwant Das
    (c) Man Singh
    (d) Bharmal

    Answer: (d)

27. What was the name of the new garrison town constructed by Alauddin Khilji for his soldiers?
    (a) Amber
    (b) Siri
    (c) Narela
    (d) Alsisar

    Answer: (b)

28. Which of the following states was annexed by the doctrine of lapse in 1854?

(a) Satara

(b) Udaipur

(c) Jhansi

(d) Sambalpur

Answer: (c)

29. Who among the following was the viceroy of India at the time of the ‘Salt March’ started by Mahatma Gandhi?

(a) Lord Wavell

(b) Lord Irwin

(c) Lord Linlithgow

(d) Lord Willingdon

Answer: (b)

30. Who among the following received the ‘Outstanding Civil Engineering Achievement Award' for 2020?

(a) Delhi Metro

(b) Mumbai Metro

(c) Hyderabad Metro

(d) Kolkata Metro

Answer: (a)

31. Which of the following books is written by actor hi Kapoor?

(a) Khullam Khulla

(b) Seventy...And to Hell With It

(c) It Happened in India

(d) Fallen Angel

Answer: (a)

32. The petition, in July 2020, has sought deletion of the words ‘secular’ and ‘socialist’ from the Preamble of the Indian Constitution. In which year were these words inserted in the preamble?

(a) 1976

(b) 1978

(c) 1960

(d) 1962

Answer: (a)

33. Which of the following Schedules of the Constitution of India lists the official languages of the Republic of India?

(a) 7th Schedule

(b) 8th Schedule

(c) 6th Schedule

(d) 9th Schedule

Answer: (b)

34. Which of the following is the largest archaeological museum in Kerala?

(a) The Hill Palace Museum

(b) Museum of Kerala History

(c) Napier Museum

(d) Arakkal Museum

Answer: (a)

35. Which of the following cities has been included in the UNESCO Creative Cities Network for its contribution to music, in November 2017?

(a) Mumbai

(b) Chennai

(c) Kolkata

(d) Pune

Answer: (b)

36. The purpose of the Industrial Policy Resolution 1956 was to promote

(a) Regional equality

(b) Agricultural export

(c) Privatization

(d) Special Economic Zone

Answer: (a)

37. Which among these was introduced in 2003?

(a) Industrial Policy Resolution

(b) Fiscal Responsibility and Budget M[illegible] Act

(c) National Economic Policy

(d) Consumer Protection Act

Answer: (b)

38. Which of the following football players was awarded the Golden Boot in the FIFA World Cup, 2018?

(a) Harry Kane

(b) Antoine Griezmann

(c) Lionel Messi

(d) Romelu Lukaku

Answer: (a)

39. _____ is India's youngest Woman Grandmaster.

(a) Humpy Koneru

(b) Eesha Karvade

(c) Subbaraman Vijayalakshmi

(d) Soumya Swaminathan

Answer: (a)

40. Winter Olympics 2022 are scheduled to be held at _____.
    (a) Tokyo
    (b) Delhi
    (c) Paris
    (d) Beijing
    Answer: (d)

General English

63. My brother who is a doctor has a very hectic _____ these days.
    (a) plan
    (b) chart
    (c) schedule
    (d) outline
    Answer: (c)

64. Choose the correct synonym of the word 'rejuvenation' from the following:
    (a) Renewal
    (b) Resignation
    (c) Repetition
    (d) Replication
    Answer: (a)

65. Read the following sentence and identify the pa[illegible]hat has an error.
My friend hurt himself /because he tried/ t[illegible]a bus /while it moved.
    (a) My friend hurt himself
    (b) because he tried
    (c) to jump off a bus
    (d) while it moved
    Answer: (d)

67. Select the option that is appropriate for the blank.
I teach _____ English _____Mathematics.
    (a) both , or
    (b) both, also
    (c) not only, but also
    (d) not only, but
    Answer: (c)

68. Choose the most appropriate synonym of the given word. pursue
    (a) follow
    (b) drive
    (c) support
    (d) quit
    Answer: (a)

69. Fill in the blank with the correct word from the options given below.
The learned professor's _____ has added great value to the book.

(a) forward
(b) foreward
(c) foreword
(d) fourword

Answer: (c)

70. Identify the correct word from the options given below and fill in the blank.
Martin Luther King walked up to the _____ amidst loud cheers.

(a) dias
(b) daze
(c) dais
(d) diase

Answer: (c)

71. Choose the most appropriate one-word substitute for the given group of words.
One who treats skin disease

(a) Dermatologist
(b) Psychiatrist
(c) Chiropodist
(d) Obstetrician

Answer: (a)

72. Select the most appropriate meaning of the given idiom or phrase.
Break down

(a) End a relationship
(b) Stop working
(c) Stop a fight
(d) Stop a meeting

Answer: (b)

73. Select the most appropriate meaning of the idiom or phrase given.
Be above board

(a) To be over the board of directors in a company
(b) To cross one's limits
(c) To be completely honest and legal
(d) To bypass authority

Answer: (c)

74. Parts of a sentence are given in jumbled order. Arrange the parts in the right order to form a meaningful sentence.
P. specially heart problems can be cured by effective surgery and drugs Q. we should also live happily without stress and depression
R. and in order to prevent these heart problems
S. new technological advancements are a boon to medical sciences,

(a) SPRQ
(b) QRPS
(c) QPRS
(d) SQRP

Answer: (a)

75. Parts of a sentence are given in jumbled order. Arrange the parts in the right order to form a meaningful sentence.
P. so we have to carefully handle the words
Q. because we can be understood or misunderstood
R. which can be a great blessing or a great curse for us
S. speech is an expression or communication of thoughts in spoken words

(a) RSPQ
(b) RPQS
(c) SRQP
(d) SPRQ

Answer: (c)

78. Why are elementary school teachers in a "strate[illegible] position'?

(a) They are able to relax in their jobs a[illegible]andling children
(b) They are powerful and can make or brea[illegible] futures on children.
(c) They can influence young children to adopt balanced attitudes
(d) They are empowered to scold g their students

Answer: (c)

79. Children 's attitudes are influenced by their techers at the elementary school for all the following reasons except that

(a) Children respect their teachers more than anybody else.
(b) being at an impressionable age,children imbibe the attitudes of their teachers.
(c) the teachers are often relaxed around children
(d) children learn things deeply at school in a formalized manner.

Answer: (c)

80. What are the constructive activities that help children who have undesirable attitudes?

(a) Home schooling by parents
(b) writing, singing and mathematics
(c) Social interaction, group discussions, extra reading and excursions help children
(d) social interaction within a large family

Answer: (c)

Discipline1

101. Identify the segment in the sentence, which contains the grammatical error.
I have completed /my assignment yesterday/ though I have/ to submit it today.

(a) I have completed

(b) my assignment yesterday

(c) though I have

(d) to submit it today.

Answer: (a)

102. Choose the most appropriate one-word substitute for the given group of words.
A building where monks live

(a) Museum

(b) Monastery

(c) Mint

(d) Montessori

Answer: (b)

103. Select the correct indirect speech form of the given sentence.
The Governor said to the councillors, "It is your duty to see that every person living within your jurisdiction receives assistance in this hour of need."

(a) The Governor told the councillors that it was their duty to see that every person living within their jurisdiction received assistance in that hour of need.

(b) The Governor tells the councillors that it is their duty to see that every person living within their jurisdiction receives assistance in that hour of need.

(c) The Governor scolded the councillors that it was your duty to see that every person living within your jurisdiction received assistance in that hour of need.

(d) The Governor told the councillors that it had been their duty to see that every person living within their jurisdiction received assistance in that hour of need.

Answer: (a)

104. Given below are four sentences which are jumbled. Pick the option that gives their correct order.
A. This project was delayed for the last two months.
B. Work is finally expected to pick up pace as the lockdown has eased.
C. The National Capital Region Transport Corporation (NCRTC) has started its work on the Delhi-Gurugram-Alwar Rapid Metro.
D. As the name suggests it will connect Delhi with Gurgaon and further with Alwar.

(a) ADCB

(b) CADB

(c) BACD

(d) CDAB

Answer: (d)

105. Select the most appropriate antonym of the given word.
FABRICATE

(a) Destroy
(b) Delay
(c) Build
(d) Divulge

Answer: (a)

116. Which of the following Acid-Base Concepts is based on the presence of water?

(a) Arrhenius Concept
(b) Lowry and Bronsted Concept
(c) Lewis Concept
(d) Usanovich's Concept

Answer: (a)

117. The octane number of petrol is a measure of its:

(a) ignition delay
(b) knocking tendency
(c) number of carbon in chain
(d) market price

Answer: (b)

118. Which of the following is NOT an Intensive prop[illegible] ?

(a) Viscosity
(b) Surface tension
(c) Specific Heat
(d) Volume

Answer: (d)

119. Which of the following is a Monomer of Cellulose?

(a) Lactose
(b) Glucose
(c) Mannose
(d) Galactose

Answer: (b)

120. In Graft copolymers:

(a) each monomer is alternated with the other like ABABABABAB....
(b) more complex repeating structures are possible like AAABBBAAABBBAAA...
(c) it is a branched copolymer with side chain(s) of one homopolymer attached to the linear backbone (main chain) of another homopolymer.
(d) two monomers are randomly ordered

Answer: (c)

Discipline2

122. pH of buffer mixtures are calculated by the:

(a) Handerson-Hasselbalch equation
(b) Arrhenius equation
(c) Vander Waals equation
(d) Vant Hoff equation

Answer: (a)

123. Which of the following is NOT an example of hard water?

(a) Water containing CaCO 3
(b) Water containing MgCO 3
(c) Water containing CaCl 2
(d) Water containing Dilute HCl

Answer: (d)

124. The amount of NaOH required if we prepare a 250 ml solution of N/40 NaOH, is:

(a) 0.15 gm
(b) 0.25 gm
(c) 0.35 gm
(d) 0.45 gm

Answer: (b)

125. Which of the following is NOT a property of Po' nylene terephthalate (PETP)?

(a) It allows reprocessing
(b) It solidifies when cooled
(c) Heating and cooling can be repeated with it
(d) It can be used at high temperatures of up to 80°C

Answer: (d)

126. Which of the following is a pointing device of a computer?

(a) Mouse
(b) Keyboard
(c) Wii Remote
(d) Gamepad

Answer: (a)

127. Microprocessor based computer systems were developed in the _____ generation of computers.

(a) first
(b) second
(c) third
(d) fourth

Answer: (d)

128. Which of the following is the very first screen/component that you will see once Windows is loaded?

(a) Control Panel
(b) Desktop
(c) Calendar
(d) Calculator

Answer: (b)

129. When you delete an item from any of the drives by making use of the 'Delete' key or even by simply right-clicking and selecting the 'Delete' option, the file is moved to the _____ in Windows OS.

(a) Control Panel
(b) Start menu
(c) Recycle Bin
(d) Taskbar

Answer: (c)

130. Which of the following page break options in Microsoft Word 2019 separates text around objects on a webpage such as caption text from body text?

(a) Column
(b) Text Wrapping
(c) Continuous
(d) Even Page

Answer: (b)

131. In paragraph formatting, Ctrl + Q is used for which of the following purposes?

(a) To remove paragraph indentation
(b) To remove paragraph formatting
(c) To open Apply Style task pane
(d) To change the paragraph spacing to double line

Answer: (b)

132. Which of the following guided data transmission media uses the concept of reflection of light through a core made up of glass or plastic?

(a) Optical fibre cable
(b) Shielded twisted pair cable
(c) Coaxial cable
(d) Unshielded twisted pair cable

Answer: (a)

133. Which of the following is a mini-DIN connector used to connect keyboards, mice to a PC compatible computer?

(a) VGA port
(b) PS/2 port
(c) RS232 port
(d) Ethernet port

Answer: (b)

134. In general, Network Gateway works at which layer of the OSI model?

(a) Physical layer
(b) Data link layer
(c) Network layer
(d) Session layer

Answer: (c)

135. Which of the following is the standard markup language for creating webpages?

(a) FORTRAN
(b) C
(c) HTML
(d) COBOL

Answer: (c)

136. 1lt (103cc) water at 4°C has _____of _____.

(a) mass; 1 kg
(b) length; 1m
(c) time; 1s
(d) temperature; 1°k

Answer: (a)

137. Which of the following is the SI unit of work, energy and heat?

(a) Radian
(b) Parsec
(c) Second
(d) Joule

Answer: (d)

138. Which of the following has NOT been expressed in its proper unit?

(a) Angular velocity - rad/s
(b) Surface tension - N/m
(c) Electric potential - V
(d) K.E and P.E - kg × m/s

Answer: (d)

139. Which of the following systems of units has the advantages of being 'a rational and coherent system of units'?

(a) CGS system
(b) MKS system
(c) FPS system
(d) SI system

Answer: (d)

Discipline3

141. Which of the following has the derived quantities is:

(a) Electric current
(b) Area
(c) Amount of substance
(d) Luminous intensity

Answer: (b)

142. Which of the following systems of units consists of seven base units?

(a) CGS system
(b) FPS system
(c) MKS system
(d) SI units

Answer: (d)

143. The 'Chandrasekhar limit' is equal to 1 times the mass of _____.

(a) Earth
(b) Jupiter
(c) Saturn
(d) the Sun

Answer: (d)

144. 'Light year' is a unit of _____.

(a) mass
(b) length
(c) time
(d) speed of light

Answer: (b)

145. Units that are totally independent and cannot be derived from other units are called:

(a) supplementary units
(b) derived units
(c) solid angle units
(d) fundamental units

Answer: (d)

147. A natural resin Shellac is generally obtained from secretion of female _____.

(a) bombyx mori

(b) silk moth

(c) musca domestica

(d) lac bug

Answer: (d)

148. The typical fibre content of a polymer composite may range from_____.

(a) 10% to 20%

(b) 80% to 90%

(c) 20% to 30%

(d) 20% to 80%

Answer: (d)

149. The effects of chain branching and crosslinking on glass-transition temperatures can be explained in terms of ___.

(a) concentrations

(b) temperature change

(c) molecular strength

(d) free volume

Answer: (d)

150. The actual reduction in polymer per unit weight plasticizer is known as:

(a) plasticization

(b) plasticizer efficiency

(c) unplasticized polymer

(d) reduction constant

Answer: (b)

151. Resilience is technically evaluated by:

(a) Rockwell hardness testing method

(b) noting the volume abraded in a given time

(c) Izod and charpy instruments

(d) allowing a metal ball to fall on the flat test surface and noting the rebound

Answer: (d)

152. The electrical property parameter of a plastic that represents the amount of electrical energy absorbed by an insulator subjected to an alternating current field is known as the:

(a) dielectric constant

(b) electrical breakdown

(c) power factor

(d) resistivity

Answer: (c)

153. In case of plastics, by monitoring the carbon dioxide evolution test which property is tested?

(a) Bio-degradability
(b) Chemical property
(c) Flammability
(d) Optical property

Answer: (a)

154. In Compression moulding and transfer moulding the preheating is generally carried out at _____.

(a) 10°C to 45°C
(b) 46°C to 65°C
(c) 66°C to 149°C
(d) 120°C to 212°C

Answer: (c)

155. Breathing or bumping is carried out in compression moulding:

(a) to supply necessary amount of oxygen to polymeric material
(b) to insure proper oxidation of the polymeric material
(c) to avoid surface blemishes
(d) to stop gases from escaping

Answer: (c)

156. Moulded thermosets are frequently post cured by _____to enhance mechanical properties.

(a) sudden cooling
(b) baking
(c) passing through water channels
(d) applying very high pressure

Answer: (b)

157. Which of the following statements describes the disadvantage of compression moulding ?

(a) Large number of production is possible using multiple cavity moulds.
(b) The wastage of material is less when compared to transfer moulding.
(c) In compression moulding, the resin is not always fully melted.
(d) Multi-cavity mould does not need any sprue or runner.

Answer: (c)

158. Which of the following devices are used to hold the moulded articles in places to avoid dimensional distortions during cooling?

(a) Cooling jacket
(b) Cooling rod
(c) Cooling jaw
(d) Cooling fixtures

Answer: (d)

159. Distortion and warpage often occur due to _____ during the cooling of the articles in moulding.

(a) unequal shrinkages
(b) unequal expansions
(c) Equal shrinkages
(d) Equal expansion

Answer: (a)

160. The physical properties of low density polyethylene are functions of which of the following three independent structural variables?

(a) Molecular weight distribution, long chain branching, short chain branching
(b) Long chain branching, short chain branching, molecular weight
(c) Molecular weight distribution, long chain branching, molecular weight
(d) Molecular weight distribution, long chain branching, bond length

Answer: (b)

Discipline4

161. Which polymer is designed to simulate the short-chain branching and density of conventional branched polyethylene without the occurrence of long chain branching?

(a) Polypropylene
(b) High density polyethylene
(c) Ultrahigh molecular weight polyethylene
(d) Linear low density polyethylene

Answer: (d)

162. In plastic industry, the term 'VINYL RESINS' commonly refers to:

(a) olefins
(b) polypropylene
(c) poly vinyl chloride
(d) natural rubber

Answer: (c)

163. Which equipment is used to begin the bulk polymerisation of styrene to produce Polystyrene?

(a) Kneader
(b) Banbury
(c) Extruder
(d) Prepolymerizer

Answer: (d)

164. Which of the following is a water soluble polymer?

(a) Polyethylene glycol

(b) Polyvinylchloride

(c) Polyvinyl acetate

(d) Polyvinyl formal

Answer: (a)

165. Which of the following correctly represents the set of naturally occurring polymers?

(a) Polyisoprene, fibronectin, teflon

(b) Elastin, epoxy, collagen

(c) Polyester, polyisoprene, fibronectin

(d) Keratin, elastin, fibronectin

Answer: (d)

166. Which is the most abundant organic matter found in nature?

(a) Chitin

(b) Starch

(c) Cellulose

(d) Rubber

Answer: (c)

167. The molecular weights of LDPE typically fall in th nge between:

(a) 6000 - 40000

(b) 4000 - 6000

(c) 2000 - 4000

(d) 1000 - 2000

Answer: (a)

168. Which polymer has the main commercial applications like crates, blow-moulded containers, drums, pails, gas tanks etc?

(a) LDPE

(b) HDPE

(c) VLDPE

(d) MDP

Answer: (b)

169. CH =CH—OCOCH is a monomer of _____.
2 3

(a) polyvinylacetate

(b) polyvinylchloride

(c) polystyrene

(d) polyacrylonitrile

Answer: (a)

170. The basis of the IUPAC polymer nomenclature system is the selection of a preferred _____.

(a) monomer

(b) constituent repeating unit

(c) structural grouping

(d) resin

Answer: (b)

171. By mixing chemically different polymers with no covalent bonding between them, we can produce:

(a) natural polymers

(b) polymer blends

(c) cellulose

(d) chitosan

Answer: (b)

172. When polymers are named by adding the name of a monomer onto the prefix 'poly', it is called nomenclature based on the:

(a) structure

(b) source

(c) IUPAC system

(d) trade name

Answer: (b)

173. Which of the following represents a utilitarian t[illegible] indicating commercially useful material mixture of polymers with strong repulsive f[illegible]es t[illegible]s homogeneous to the eye?

(a) Homologous polymer blends

(b) Immiscible polymer blends

(c) Partially miscible blends

(d) Compatible polymer blends

Answer: (d)

174. The main characteristic which distinguishes polymer blend from polymer composite is the:

(a) mechanical strength

(b) chemical activity

(c) electrical conductivity

(d) phase

Answer: (d)

175. Epoxy, phenol-formaldehyde resin and unsaturated polyester resins are classified as:

(a) thermoplastics

(b) thermosets

(c) natural polymers

(d) constituent repeating units

Answer: (b)

176. Which of the following instruments is used to determine the Melt Flow Index [MFI] of polyolefins?

(a) Ostwald viscometer
(b) Extrusion plastimeter
(c) Hydrometer
(d) Pyrometer

Answer: (b)

177. The test for plastics which is based on the resistance to penetration by an indenter pressed into the plastic under a constant load is carried out to determine the:

(a) hardness
(b) impact
(c) fatigue
(d) Abrasion resistance

Answer: (a)

178. A translucent plastic is one:

(a) that only transmits the part of light incident on it
(b) that transmits all the light incident on it
(c) that reflects all the light incident on it
(d) that absorbs all light incident on it

Answer: (a)

179. In which year was the first plastic bottle blow m ded from polyethylene?

(a) 1935
(b) 1960
(c) 1943
(d) 1948

Answer: (c)

180. The degree of crystallinity is an important parameter for characterising _____ materials, as in polymers, blends and minerals etc.

(a) number of
(b) morphology of
(c) disordered
(d) arranged

Answer: (b)

Discipline5

181. Condensation polymers such as polyester nylons are generally depolymerised by:

(a) physical operations such as separation
(b) chemical processes such as hydrolysis
(c) thermal cracking
(d) catalytic cracking

Answer: (b)

182. Which of the following is the function of the breaker plate in injection moulding ?

(a) Mixing of material
(b) Forward the mixed material into the mould
(c) Driving of motors
(d) To support the screen pack

Answer: (d)

183. Which of the following is the function of the spreader in injection moulding?

(a) Mixing of material
(b) To support the screen pack
(c) Receive the material from hopper
(d) Preheating of material

Answer: (a)

184. Compression moulding is generally used for:

(a) thermoplastic rubber
(b) thermoplastic polymer
(c) thermosetting plastic
(d) nylon fibre

Answer: (c)

185. The properties of a polymer are very important in determining its use and the mechanical behaviour of a polymer can be characterised by its _____ properties.

(a) solvent
(b) electrical resistance
(c) gas permeability
(d) stress-strain

Answer: (d)

186. Which of the following is highly flammable during processing?

(a) Natural rubber
(b) Bakelite
(c) Cellulose nitrate
(d) Teflon

Answer: (c)

187. Which technique is used to manufacture hollow articles of polymers?

(a) Injection moulding
(b) Compression moulding
(c) Rotational moulding
(d) Extrusion moulding

Answer: (c)

188. Hinge property is a characteristic of which polymer?

(a) Polypropylene
(b) Polystyrene
(c) Polyvinylchloride
(d) Phenolformaldehyde

Answer: (a)

189. Which of the following polymers has a high refractive index and possess good optical properties?

(a) Cellulose nitrate
(b) Cellulose acetate
(c) Polystyrene
(d) Polychloroprene

Answer: (c)

190. What is the recycling code for polyethylene tere .halate PET?

(a) 1
(b) 2
(c) 5
(d) 3

Answer: (a)

191. Flash mould, semi-positive mould, positive mould and landed positive mould are types of which moulding/process?

(a) Injection moulding
(b) Extrusion moulding
(c) Thermoforming
(d) Compression moulding

Answer: (d)

192. Which of the following is the main source of natural rubber?

(a) Havea bresiliansis
(b) Hevea brasiliensis
(c) Havea brseilinses
(d) Hevea bresilienses

Answer: (b)

193. Which of the following are the characteristic engineering properties of polycarbonates?
(a) Low impact strength, low combustibility, high light transmittance
(b) High impact strength, low combustibility, high light transmittance
(c) High impact strength, low combustibility, low light transmittance
(d) High impact strength, high combustibility, high light transmittance
Answer: (b)

194. A flexible grade resin of PVC is obtained by blending with a _____.
(a) filler
(b) resin
(c) plasticizer
(d) lubricant
Answer: (c)

195. Exposure to higher temperatures leads to _____ in polymer blends.
(a) molecular association
(b) phase separation
(c) phase mixing
(d) consistency in phase
Answer: (b)

196. The un-injected moulding resin is known as:
(a) flash
(b) cull
(c) hull
(d) magma
Answer: (b)

197. Addition polymers such as polyolefins are generally depolymerized by:
(a) oxidation
(b) chemical processes such as hydrolysis
(c) thermal cracking or catalytic cracking
(d) reduction
Answer: (c)

199. The commonly used natural resin paint is:
(a) shellac paint
(b) teflon coating
(c) glyptal paint
(d) vinyl resin paint
Answer: (a)

200. Which derivative of cellulose is obtained by reacting cellulose with glacial acetic acid in the presence of acetic anhydride and traces of sulfuric acid in methylene chloride?

(a) Cellulose acetate

(b) Cellulose diacetate

(c) Cellulose triacetate

(d) Cellulose xanthate

Answer: (c)

Answer key

Answer key from the Delhi Subordinate Services Selection Board's official answer key for this sitting. "—" means the key gave none.

General Ability

1	**(c)**	2	**(b)**	3	**(c)**	4	**(a)**	5	**(b)**	6	**(c)**	7	**(b)**	8	**(d)**
9	**(c)**	10	**(d)**	11	**(b)**	12	**(c)**	13	**(b)**	15	**(a)**	16	**(a)**		

General Awareness

21	**(c)**	22	**(c)**	23	**(a)**	24	**(b)**	25	**(c)**	26	**(d)**	27	**(b)**	28	**(c)**
29	**(b)**	30	**(a)**	31	**(a)**	32	**(a)**	33	**(b)**	34	**(a)**	35	**(b)**	36	**(a)**
37	**(b)**	38	**(a)**	39	**(a)**	40	**(d)**								

General English

63	**(c)**	64	**(a)**	65	**(d)**	67	**(c)**	68	**(a)**	69	**(c)**	70	**(c)**	71	**(a)**
72	**(b)**	73	**(c)**	74	**(a)**	75	**(c)**	78	**(c)**	79	**(c)**	80	**(c)**		

Discipline1

101	**(a)**	102	**(b)**	103	**(a)**	104	**(d)**	105	**(a)**	116	**(a)**	117	**(b)**	118	**(d)**
119	**(b)**	120	**(c)**												

Discipline2

122	**(a)**	123	**(d)**	124	**(b)**	125	**(d)**	[illegible]	**(a)**	127	**(d)**	128	**(b)**	129	**(c)**
130	**(b)**	131	**(b)**	132	**(a)**	133	[illegible]	[illegible]	**(c)**	135	**(c)**	136	**(a)**	137	**(d)**
138	**(d)**	139	**(d)**												

Discipline3

141	**(b)**	142	**(d)**	143	**(d)**	144	**(b)**	145	**(d)**	147	**(d)**	148	**(d)**	149	**(d)**
150	**(b)**	151	**(d)**	152	**(c)**	153	**(a)**	154	**(c)**	155	**(c)**	156	**(b)**	157	**(c)**
158	**(d)**	159	**(a)**	160	**(b)**										

Discipline4

161	**(d)**	162	**(c)**	163	**(d)**	164	**(a)**	165	**(d)**	166	**(c)**	167	**(a)**	168	**(b)**
169	**(a)**	170	**(b)**	171	**(b)**	172	**(b)**	173	**(d)**	174	**(d)**	175	**(b)**	176	**(b)**
177	**(a)**	178	**(a)**	179	**(c)**	180	**(b)**								

Discipline5

181	**(b)**	182	**(d)**	183	**(a)**	184	**(c)**	185	**(d)**	186	**(c)**	187	**(c)**	188	**(a)**
189	**(c)**	190	**(a)**	191	**(d)**	192	**(b)**	193	**(b)**	194	**(c)**	195	**(b)**	196	**(b)**
197	**(c)**	199	**(a)**	200	**(c)**										