

1. An abnormal amount of data around the mean in a normal distribution curve is called
 - (A) Median
 - (B) Mode
 - (C) Kurtosis
 - (D) Standard deviation
 - (E) Answer not known

2. In _____ the reasons for poor quality is classified under major categories like 'people, materials, work methods, environment, equipment, measurement'.
 - (A) Pareto diagram
 - (B) Process flow diagram
 - (C) Cause and effect diagram
 - (D) Check sheet
 - (E) Answer not known

3. _____ helps an organisation to better understand promoting or driving and restraining or inhibiting forces so that the positives can be reinforced and the negatives reduced or eliminated.
 - (A) Nominal group techniques
 - (B) Inter relationship digraph
 - (C) Matrix diagram
 - (D) Forced field analysis
 - (E) Answer not known

4. _____ is the statistical process control tool.
 - (A) TPM
 - (B) Pareto analysis
 - (C) ISO 9000
 - (D) Six sigma
 - (E) Answer not known

5. _____ is a tool to collect a large number of verbal expression (ideas, opinions and observation etc.)
- (A) Tree diagram (B) Matrix diagram
(C) Affinity diagram (D) Arrow diagram
(E) Answer not known
6. The most common internal quality measurement that can be used a control point in most process is
- (A) Total defects per unit = No of defects + No of units produced (or) tested
(B) Total defects per unit = No of defects \times No of units produced (or) tested
(C) Total defects per unit = No of units produced (or) tested / No of defects
(D) Total defects per unit = No of defects / No of units produced (or) tested
(E) Answer not known
7. Which of these is a key principle of the six sigma methodology?
- (A) Customer complaints handling
(B) Reducing variation and defects in processes
(C) Increasing production speed
(D) Decreasing customer retention
(E) Answer not known

8. _____ among the following is the elements belongs to customer care.
- (A) Organize processes
 - (B) Deliver what is promised
 - (C) Write document in customer – friendly language
 - (D) Hire people who like people
 - (E) Answer not known
9. _____ can be used for measuring film or printed product using reflected or transmitted light.
- (A) Densiometer
 - (B) Densitometer
 - (C) Lux meter
 - (D) Aero meter
 - (E) Answer not known
10. Internal customers satisfaction is a part of
- (A) Customer Satisfaction Index
 - (B) Employee Satisfaction Index
 - (C) Quality Control Points
 - (D) External Checkpoints
 - (E) Answer not known

11. Choose the right match following strategies can improve customer retention.
- (1) Regularly reviewing and updating customer feedback processes.
 - (2) Ignoring customer complaints.
 - (3) Offering personalized service and rewards programs.
 - (4) Reducing product or service quality.
- (A) 1 and 3 are correct (B) 1 and 2 are correct
(C) 2 and 3 are correct (D) 3 and 4 are correct
(E) Answer not known
12. Assertion [A] : Customer satisfaction is directly linked to customer loyalty.
- Reason [R] : Dissatisfied customers are more likely to switch to competitors.
- (A) Both [A] and [R] are true and [R] is the correct explanation for [A]
 - (B) Both [A] and [R] are true but [R] is not the correct explanation for [A]
 - (C) [A] is true, but [R] is false
 - (D) [A] is false, but [R] is true
 - (E) Answer not known
13. Which Type error takes place when the process is out of control but the QC manager is not looking for any assignable causes.
- (A) Type I (B) Type II
 - (C) Type III (D) Type IV
 - (E) Answer not known

14. _____ refers to the seven classes of waste as per kaizen philosophy.
- (A) MUDA (B) 5S
(C) POKA-YOKE (D) Just In Time
(E) Answer not known
15. _____ is an objectionable pattern that come from superimposing two or more uniform and repeating patterns.
- (A) Moire (B) Ghosting
(C) Hickey (D) Mottle
(E) Answer not known
16. Ideal press room temperature in °C is
- (A) 15-18 (B) 20-22
(C) 26-28 (D) 30-32
(E) Answer not known
17. _____ is the instrument used to measure the humidity.
- (A) Thermometer (B) Durometer
(C) Hygrometer (D) Micrometer
(E) Answer not known

18. Match the following :

- | A | | B | |
|-----|-----------|----|--|
| (a) | ISO 9001 | 1. | Model for quality assurance in final inspection test. |
| (b) | ISO 9003 | 2. | Model for quality assurance in design, development production, installation and servicing. |
| (c) | QS 9000 | 3. | Guidelines for auditing quality system |
| (d) | ISO 10011 | 4. | Automotive quality management system. |

- | | (a) | (b) | (c) | (d) |
|-----|------------------|-----|-----|-----|
| (A) | 2 | 1 | 4 | 3 |
| (B) | 1 | 2 | 4 | 3 |
| (C) | 4 | 2 | 1 | 3 |
| (D) | 3 | 2 | 1 | 4 |
| (E) | Answer not known | | | |

19. The lightest area of a printed image has a density of 0.2, and the darkest area has a density of 1.6. What is the print contrast?

- | | |
|----------------------|---------|
| (A) 1.2 | (B) 1.4 |
| (C) 1.8 | (D) 2.0 |
| (E) Answer not known | |

20. What is the purpose of a moisture trap in an offset printing press?

- (A) To prevent ink from drying too quickly
- (B) To regulate the humidity in the pressroom
- (C) To remove excess moisture from the printed sheets
- (D) To control the temperature of the printing plates
- (E) Answer not known

21. The long, wood derived fibres used by the paper and paper board industry are around _____ in length.
- (A) 1 – 1.5 mm (B) 3 – 4 mm
 (C) 5 – 7 mm (D) 8 – 10 mm
 (E) Answer not known
22. Identify the correct sequence in paper-making process.
- (A) chipping → pulping → bleaching → pulp blending
 (B) pulping → chipping → pulp blending → bleaching
 (C) bleaching → chipping → pulping → pulp blending
 (D) pulp blending → chipping → pulping → chipping
 (E) Answer not known
23. Match the following fibres with its respective fibre length in mm
- | | | |
|------------|----|--------------|
| (a) pine | 1. | 10 – 36 mm |
| (b) manila | 2. | 2.0 – 3.0 mm |
| (c) cotton | 3. | 1.8 – 6.2 mm |
| (d) flax | 4. | 12 – 50 mm |
-
- | | | | | |
|-----|------------------|-----|-----|-----|
| | (a) | (b) | (c) | (d) |
| (A) | 2 | 3 | 4 | 1 |
| (B) | 1 | 3 | 4 | 2 |
| (C) | 2 | 3 | 1 | 4 |
| (D) | 1 | 2 | 3 | 4 |
| (E) | Answer not known | | | |

24. The amount of filler in a paper is expressed as its
- (A) Ash content
 - (B) pH value
 - (C) Acidity
 - (D) Alkalinity
 - (E) Answer not known
25. The cellulose fibres in paper are held together by
- (A) Hydrogen bond
 - (B) Adhesive
 - (C) Ionic bond
 - (D) Covalent bond
 - (E) Answer not known
26. _____ is produced with bleached chemical pulp on the topside and have an underlining of mechanical pulp and back layers are having gray colours.
- (A) Folding box board
 - (B) White lined chip board
 - (C) Unbleached solid boards
 - (D) Solid bleached boards
 - (E) Answer not known
27. Plain corrugated boxes are directly printed by _____ using water dispersive inks.
- (A) Flexography
 - (B) Offset printing
 - (C) Screen printing
 - (D) Gravure printing
 - (E) Answer not known
28. A special kind of blister package that folds onto itself is known as
- (A) Flexo-cartons
 - (B) Flexi-tubes
 - (C) Clamshell package
 - (D) Aerosol package
 - (E) Answer not known

29. Twist wrapping is used in which of the following products?
- (A) Cookies (B) Chips
(C) Toffees (D) Biscuits
(E) Answer not known
30. The viscosity of an ink decreases with time when shearing stress is applied and called as
- (A) Tack (B) Mottle
(C) Tinking (D) Thixotrophy
(E) Answer not known
31. _____ can be used in formulating a purple color ink.
- (A) Lithopone (B) Titanium dioxide
(C) Zinc oxide (D) Carbazole
(E) Answer not known
32. Which test is conducted on packaging material to determine its moisture absorbency properties?
- (A) Compression test (B) Cobb test
(C) Tear test (D) Tensile strength
(E) Answer not known
33. _____ are substances that usually have some adhesive properties and are added to reduce the cost of adhesive.
- (A) Inhibitors (B) Accelerators
(C) Diluents (D) Extenders
(E) Answer not known

34. _____ material is used for making crown closures.
- (A) Aluminium
 - (B) Poly ethylene
 - (C) Poly propylene
 - (D) Poly vinyl chloride
 - (E) Answer not known
35. The shape of the glass container that has greater strength to weight ratio.
- (A) Elliptical
 - (B) Square with round corners
 - (C) Cylindrical
 - (D) Square with sharp corners
 - (E) Answer not known
36. The material added to impart anticorrosion properties in steel used for packaging.
- (A) Copper
 - (B) Silver
 - (C) Tin
 - (D) Selenium
 - (E) Answer not known
37. Ductile metals such as tin, lead and aluminium can be formed into tubular shapes by
- (A) Impact Extrusion
 - (B) Blown Extrusion
 - (C) Injection moulding
 - (D) Pellet Extrusion
 - (E) Answer not known

38. Match the following on packaging materials :

- | | |
|-----------------------|-------------------------|
| (a) Tin | 1. Consumer goods |
| (b) Aluminium | 2. Inertness |
| (c) Non woven fabrics | 3. Thin layer |
| (d) Glass | 4. Corrosion resistance |

- | | (a) | (b) | (c) | (d) |
|-----|------------------|-----|-----|-----|
| (A) | 1 | 2 | 3 | 4 |
| (B) | 2 | 1 | 3 | 4 |
| (C) | 3 | 4 | 1 | 2 |
| (D) | 4 | 3 | 1 | 2 |
| (E) | Answer not known | | | |

39. The common closure liner construction is recommended for packaging hot filling applications is

- (A) PP/Expanded PP/PP
- (B) PE/isobutylene blend
- (C) Ethylene – Vinyl acetate
- (D) PET/LDPE/Expanded LDPE/LDPE
- (E) Answer not known

40. _____ fragile factor levels can be considered as extremely fragile.

- | | |
|----------------------|---------------|
| (A) 65 – 85 G | (B) 15 – 25 G |
| (C) 25 – 40 G | (D) 40 – 60 G |
| (E) Answer not known | |

41. _____ is removed in an electroplating reversal process of gravure cylinder.
- (A) Steel (B) Copper
(C) Nickel (D) Chrome
(E) Answer not known
42. In Liquid flexography plate making process, the photo sensitive resin is poured on negative and protective film and it is levelled using _____ to release air bubble.
- (A) coating rod (B) crown roller
(C) doctor blade (D) glass sheet
(E) Answer not known
43. What is the main advantage of using laser cutting for gravure cylinders over electromechanical engraving?
- (A) Faster production speed (B) Chemical etching
(C) Lower cost (D) Easier setup process
(E) Answer not known
44. For newspaper printing, the total area coverage should not exceed
- (A) 180% (B) 260%
(C) 320% (D) 360%
(E) Answer not known

45. What is the role of a squeegee in the screen printing process?
- (A) to apply heat
 - (B) to dry the printed substrate
 - (C) to push ink through the stencil
 - (D) to mix the inks
 - (E) Answer not known
46. _____ type of flexography plates are produced from matrix.
- (A) Sheet photopolymer
 - (B) Liquid photo polymer
 - (C) Rubber plate
 - (D) Poly vinyl acetate
 - (E) Answer not known
47. Indirect stencils in screen printing are prepared by
- (A) Exposing through negative films
 - (B) Using stencil knife
 - (C) Using metalized polyester film
 - (D) Exposing through positive films
 - (E) Answer not known
48. Which of the following is correctly paired?
- [A] : AM Screening – varies dot size but keeps spacing constant
 - [B] : FM Screening – keeps dotsize constant but varies spacing
 - (A) [A] True and [B] True
 - (B) [A] True and [B] False
 - (C) [A] False and [B] True
 - (D) [A] False and [B] False
 - (E) Answer not known

49. Choose the right match following quality aspects to consider in screen printing stencil preparation.
1. Uniformity of the stencil thickness
 2. Type of ink used
 3. Sharpness of the stencil edges
 4. Screen mesh count
- (A) 1 and 3 are correct (B) 1 and 2 are correct
(C) 2 and 3 are correct (D) 3 and 4 are correct
(E) Answer not known
50. For high precision and multicolor screen printing, the ideal/mesh material recommend is
- (A) Silk screen (B) Nylon
(C) Polyester (D) Metalized polyester
(E) Answer not known
51. Composite sleeves are produced by reinforcing the polymer with a fibres such as _____ and _____.
- (A) wood dust and nylon (B) stained glass and baggage
(C) graphite tube and coir (D) fibre glass and carbon fibre
(E) Answer not known

52. In CTP technology, what is the role of a laser in the imaging process?
- (A) to create the image directly on the substrate
 - (B) to transfer ink to the plate
 - (C) to remove non-image areas from the plate
 - (D) to expose the plate with precise image data
 - (E) Answer not known
53. What is the primary function of the plate in the offset printing process?
- (A) to hold the ink
 - (B) to transfer ink to the paper directly
 - (C) to transfer the ink to a blanket cylinder
 - (D) to dry the ink
 - (E) Answer not known
54. What type of plate is commonly used in the offset printing process?
- (A) Rubber plate
 - (B) Copper plate
 - (C) Aluminum plate
 - (D) Plastic plate
 - (E) Answer not known
55. Which of the following describes a common type of plate used in CTP systems?
- (A) Silver halide plates
 - (B) Thermal plates
 - (C) Flexographic plates
 - (D) Wipe on plates
 - (E) Answer not known

56. The purpose of silicone rubber layer in waterless litho offset plate is
- (A) Creating Image area
 - (B) Creating non Image area
 - (C) Creating protective layer
 - (D) Creating supportive layer
 - (E) Answer not known
57. In Hybrid Computer to Plate (CTP) machines, plates uses a combination of ___(a)___ and ___(b)___
- (A) (a) Silver halide (b) Egg albumin
 - (B) (a) Silver halide (b) Diazo coating
 - (C) (a) PVA (b) Egg albumin
 - (D) (a) Silver halide (b) PVA
 - (E) Answer not known
58. When the pH of the dampening solution is too low or when too much alcohol is used in the fountain, the image will be
- (A) Blind (B) Premature
 - (C) Cracking (D) Sharpening
 - (E) Answer not known
59. The wavelength of visible spectrum lies between
- (A) 400 to 780 nm (B) 500 to 900 nm
 - (C) 300 to 600 nm (D) 700 to 1000 nm
 - (E) Answer not known

60. Which type of plate has a higher sensitivity to light?
- (A) Thermal plate
 - (B) Waterless plate
 - (C) Silver halide plate
 - (D) Photopolymer coated plate
 - (E) Answer not known
61. What refers to the distribution of power and authority among different individuals of an organization?
- (A) Centralization
 - (B) Authorization
 - (C) Realization
 - (D) Decentralization
 - (E) Answer not known
62. The proforma on the card which contains the detailed specifications and working instructions regarding the execution of the job are recorded.
- (A) Detailed sheet
 - (B) Job ticket
 - (C) Key sheet
 - (D) Print sheet
 - (E) Answer not known
63. In arrow diagram, the events making the start of activities are called
- (A) Head event
 - (B) Tail event
 - (C) Dummy event
 - (D) Logic event
 - (E) Answer not known

64. Burst and merge are types of _____ in networking.
- (A) Event (B) Arrow
(C) Activity (D) Tools
(E) Answer not known
65. The process of determining whether a company's available production capacity can meet its production goals is known as :
- (A) Capacity requirements planning
(B) Production requirements
(C) Goal achievement
(D) Process optimization
(E) Answer not known
66. One of the assumptions in sequencing problem solving is, a machine cannot process more than _____ job at a given point of time.
- (A) One (B) Two
(C) Three (D) Four
(E) Answer not known
67. When a customer is denied fulfilment of an order because the inventory of the item has runout it's called
- (A) Buffer stock (B) Safety stock
(C) Stock in (D) Stock out
(E) Answer not known

68. Calculate the Economic Order Quantity if the demand is 9,000 units per annum and is uniformly distributed over the year, cost price is Rs.2/- per unit, ordering cost is Rs.40/- per order and inventory carrying cost is 9% of the inventory value.
- (A) 2,000 units (B) 4,000 units
(C) 1,000 units (D) 2,500 units
(E) Answer not known
69. The price of the product can be calculated by
- (A) Price = Cost – Expenditure
(B) Price = Cost + Expenditure
(C) Price = Cost + Profit
(D) Price = Cost – Profit
(E) Answer not known
70. The term used to describe the cost of materials consumed in the production process
- (A) Direct materials cost (B) Variable cost
(C) Overhead cost (D) Indirect labor cost
(E) Answer not known
71. _____ is excluded in the calculation of profit.
- (A) Rent (B) Time
(C) Salary (D) Telephone charges
(E) Answer not known

72. Indirect materials + Indirect labour + Indirect expenses =
- (A) Administration overheads
 - (B) Factory overhead
 - (C) Selling overhead
 - (D) Distribution overhead
 - (E) Answer not known
73. _____ provides a price estimating system for all kind of commercial printing job
- (A) Gutenberg system
 - (B) Franklin system
 - (C) Alois Senefelder system
 - (D) Karlklick system
 - (E) Answer not known
74. Find the annuity of Rs. 1000/- in 10 years allowing a compound interest of 5% per annum.
- (A) Rs. 12,577.9
 - (B) Rs. 13,577.9
 - (C) Rs. 10,577.9
 - (D) Rs. 15,577.9
 - (E) Answer not known
75. In a multi product investment analysis care the break even point is calculated by _____ the amount of fixed cost with weighted contribution margin.
- (A) Dividing
 - (B) Subtracting
 - (C) Adding
 - (D) Multiplying
 - (E) Answer not known

76. The standard widths of binding cloth and rexine are
- (A) 30, 60, 90 and 120 cm
 - (B) 90, 100, 125 and 140 cm
 - (C) 50, 100, 150 and 200 cm
 - (D) 20, 40, 60 and 80 cm
 - (E) Answer not known
77. _____ is the conventional size of Quad crown.
- (A) 15" × 20"
 - (B) 20" × 30"
 - (C) 30" × 40"
 - (D) 40" × 50"
 - (E) Answer not known
78. Composite Machine Hour Rate (CMHR) is calculated by
- (A) Fixed direct cost of the machine + Total fixed direct cost of all the machine
 - (B) Fixed direct cost of the machine + Total annual fixed indirect cost
 - (C) Fixed costs per hour + Variable costs per hour.
 - (D) Variable direct cost of the machine + Variable indirect cost of the machine
 - (E) Answer not known
79. A cost incurred by the printer that must be paid immediately or within a short period of time is known as :
- (A) Critical cost
 - (B) Variable cost
 - (C) Out of Pocket cost
 - (D) Fixed cost
 - (E) Answer not known

80. In cost Estimation and control, the acronym BCWS stands for :

- (A) Budgeted cost for work scheduled
- (B) Budgeted cash for work system
- (C) Basic cost for work system
- (D) Budgeted cost for wealth system
- (E) Answer not known

81. Match the following terms with their appropriate definitions :

Term	Definition
(a) Color Management	1. Arrangement of pages of printing efficiency
(b) Digital Imposition	2. Maintaining color consistency across devices
(c) Plate Setter	3. Page description language for printing
(d) Postscript	4. Device used to create printing plates from digital data

- | | (a) | (b) | (c) | (d) |
|-----|------------------|-----|-----|-----|
| (A) | 4 | 1 | 2 | 3 |
| (B) | 1 | 2 | 3 | 4 |
| (C) | 3 | 1 | 2 | 4 |
| (D) | 2 | 1 | 4 | 3 |
| (E) | Answer not known | | | |

82. Assertion [A] : Toners provide advantages in printing speed and cost-effectiveness compared to liquid inks.

Reason [R] : Toners require significant drying time, which slow down the printing process.

- (A) Both [A] and [R] are true and [R] is the correct explanation of [A]
- (B) Both [A] and [R] are true, but [R] is not the correct explanation of [A]
- (C) [A] is true, but [R] is false
- (D) [A] is false, but [R] is true
- (E) Answer not known

83. Find the suitable rendering indent for producing same input and output image.

- (A) Absolute
- (B) Relative
- (C) Perceptual
- (D) Optimized for Saturation
- (E) Answer not known

84. Match the following

- | | |
|---------------------|---------------------------|
| (a) Work and turn | 1. Inner and outer plate |
| (b) Work and tumble | 2. Single plate |
| (c) Sheet work | 3. Different gripper edge |
| (d) Half sheet work | 4. Same gripper edge |

- | | (a) | (b) | (c) | (d) |
|-----|------------------|-----|-----|-----|
| (A) | 4 | 3 | 2 | 1 |
| (B) | 4 | 3 | 1 | 2 |
| (C) | 1 | 2 | 3 | 4 |
| (D) | 2 | 1 | 4 | 3 |
| (E) | Answer not known | | | |

85. Moire effect is not caused by
- (A) Superimposing regular pattern
 - (B) Improper screen angle
 - (C) Improper exposure settings
 - (D) Improper screen ruling
 - (E) Answer not known
86. Match the following
- | | | |
|------------------------|-----------------------------|--|
| (a) Thermal inkjet | 1. Charge electrode | |
| (b) Continuous ink jet | 2. Channel wall deformation | |
| (c) Piezo ink jet | 3. Bubble formation | |
-
- | | (a) | (b) | (c) |
|-----|------------------|-----|-----|
| (A) | 2 | 1 | 3 |
| (B) | 2 | 3 | 1 |
| (C) | 3 | 2 | 1 |
| (D) | 3 | 1 | 2 |
| (E) | Answer not known | | |
87. Which of the following laser can generate output in UV, visible and IR region by altering its frequency.
- (A) Helium Neon
 - (B) Argon ion
 - (C) Nd : YAG
 - (D) Cd : YAG
 - (E) Answer not known

88. The term “megapixel” refer to in the context of digital cameras is
- (A) The size of the camera sensor
 - (B) The amount of memory in the camera
 - (C) The camera’s battery capacity
 - (D) The number of pixels in an image, measured in millions
 - (E) Answer not known
89. Which of the following statements are true in Imaging Technology?
- (i) Inkjet technology is the most widely used for digital proofing method in commercial printing.
 - (ii) Raster Image Processor is responsible for converting vector data into a proper imposition of pages for the printing process.
 - (iii) Toners used in laser printers are made up of powdered pigments and polymers.
- (A) (i) only
 - (B) (i) and (iii) only
 - (C) (i) and (ii) only
 - (D) (ii) and (iii) only
 - (E) Answer not known
90. A means of converting paper based original (hard copy) in editable text using scanner and related software is called as
- (A) Original character recalling
 - (B) Online character recording
 - (C) Optical character recognition
 - (D) Optical content reproduction
 - (E) Answer not known

91. The _____ dot results in sharper printing and is used extensively for sheetfed printing.
- (A) Round dot (B) Square dot
(C) Elliptical dot (D) Semi circle dot
(E) Answer not known
92. _____ is the process of removing cyan, magenta and yellow dot percentages from highlight to shadow including chromatic regions.
- (A) UCR (B) GCR
(C) UCA (D) TAC
(E) Answer not known
93. The process of eliminating portions of the copy, usually on a photograph indicated on the original
- (A) Circling (B) Marking
(C) Cropping (D) Deducting
(E) Answer not known

94. Arrange the following prepress workflow tasks in correct sequence for conventional printing
1. Sheet assembly
 2. Printing
 3. Page assembly
 4. Plate imaging
 5. RIP
- (A) 3, 1, 5, 4, 2 (B) 1, 3, 5, 4, 2
(C) 1, 5, 3, 4, 2 (D) 5, 1, 3, 4, 2
(E) Answer not known
95. A circular pattern of overlapping dots, created when several halftone screens printed with different color inks are placed on top of each other.
- (A) Overlap (B) Moire
(C) Rosette (D) Interference
(E) Answer not known
96. An image of 2"×2" size at a resolution of 75 ppi will have _____ of pixels in the file.
- (A) 150 (B) 300
(C) 11,250 (D) 22,500
(E) Answer not known

97. The width of 3-em space of 12 point font is
- (A) 4 points (B) 6 points
 (C) 12 points (D) 36 points
 (E) Answer not known
98. The only operation that can be carried out the 'EPS' file format is
- (A) Colour correction (B) Image retouching
 (C) Image scaling (D) Colour control
 (E) Answer not known
99. Match the following phrases given under Column A with their meaning, under Column B :
- | Column A | | Column B | |
|----------------|--|----------|--|
| (a) Imposition | | 1. | The space between two pages in a book |
| (b) Bleed | | 2. | The final size of a printed page |
| (c) Trim size | | 3. | The layout process for arranging pages |
| (d) Gutter | | 4. | The area that extends beyond trim size |
- (a) (b) (c) (d)
- (A) 4 3 1 2
 (B) 1 2 4 3
 (C) 2 1 3 4
 (D) 3 4 2 1
 (E) Answer not known

100. Arrange the following stages/steps in correct sequence.

1. Finalizing Typography
2. Creating a Dummy
3. Rough Sketch
4. Printing the final layout

- (A) 3, 1, 2, 4 (B) 3, 2, 1, 4
(C) 2, 3, 4, 1 (D) 2, 4, 3, 1
(E) Answer not known

101. Select the correct statements for the following equipments :

1. Wrencher – Tool used to tighten/loosen the nuts and bolts
2. Micrometer – Instrument used to check the hardness
3. Spirit level – Instrument to test/adjust horizontal surfaces
4. Viscometer – Tool used to measure the humidity

- (A) 1 and 4 are correct (B) 1 and 3 are correct
(C) 2 and 3 are correct (D) 3 and 4 are correct
(E) Answer not known

102. The bearing that is made from powdered metal that is compressed and molded with 25% air space.

- (A) Porous bearing (B) Tapered roller bearing
(C) Needle bearing (D) Ball bearing
(E) Answer not known

103. The machine element which distorts when loaded and recovers when the load is removed.
- (A) Follower (B) Shaft
 (C) Cam (D) Spring
 (E) Answer not known
104. _____ occurs due to repeated bending stress above the endurance limit.
- (A) Tooth breakage (B) Fatigue breakage
 (C) Heavy wear breakage (D) Overload breakage
 (E) Answer not known
105. Down time losses are measured by equipment availability (A) using _____ equation, where, T-operating time P-Planned operating time
- (A) $A = \left(\frac{I}{P}\right) \times 100$ (B) $A = (T \times P) / 100$
 (C) $A = (T + P) / 100$ (D) $A = (T - P) \times 100$
 (E) Answer not known
106. As a general rule, standard greases will yield satisfactory performance at temperatures upto
- (A) 475° F (B) 375° F
 (C) 275° F (D) 175° F
 (E) Answer not known

107. The lubrication with _____ is used for light loads and high speeds.
- (A) Low viscosity (B) High viscosity
(C) Medium viscosity (D) Very high viscosity
(E) Answer not known
108. The maintenance that utilizes outside manpower and resources is called as
- (A) Scheduled maintenance (B) Breakdown maintenance
(C) Preventive maintenance (D) Contract maintenance
(E) Answer not known
109. Mating component of chain is
- (A) Pulley (B) Sprocket
(C) Wheel (D) Gear
(E) Answer not known
110. In planned maintenance, which of the following departments are responsible for increased operator and public safety
- (A) Operations manufacturing and purchasing
(B) Operations manufacturing and top management
(C) Operations manufacturing and maintenance manager
(D) Operations manufacturing and accountancy
(E) Answer not known

111. The routine to repair (or) replace on fixed frequency is called _____ maintenance.

- (A) Break down
- (B) Reactive
- (C) Preventive
- (D) Predictive
- (E) Answer not known

112. Turnover (stores performance) is the calculation of the average throughout the storeroom (Expressed in months) is equal to

- (A) $\frac{\text{Total value of the store room}}{\text{Total value withdrawn in a year}} \times 3 \text{ months/yr}$
- (B) $\frac{\text{Total value of the store room}}{\text{Total value withdrawn in a year}} \times 6 \text{ months/yr}$
- (C) $\frac{\text{Total value of the store room}}{\text{Total value withdrawn in a year}} \times 12 \text{ months/yr}$
- (D) $\frac{\text{Total value of the store room}}{\text{Total value withdrawn in a year}} \times 9 \text{ months/yr}$
- (E) Answer not known

113. Which of the following statements are true about predictive maintenance?

- (i) Predictive maintenance is not a maintenance scheduling tool
 - (ii) Predictive maintenance data can be used for optimizing plant operations
 - (iii) Visual inspection is a predictive maintenance technique
- (A) (ii) only
 - (B) (iii) only
 - (C) (i) and (ii) only
 - (D) (ii) and (iii) only
 - (E) Answer not known

114. In maintenance management _____ charts specify frequencies and lubrications.
- (A) check (B) methods
(C) control (D) failure
(E) Answer not known
115. _____ is not included in prevention costs of flexographic printing press.
- (A) Vendor certification
(B) Preventive maintenance expenses
(C) ISO certification
(D) Reworking cost
(E) Answer not known
116. Instrument/equipment is used to measure the gap between rollers
- (A) Micrometer (B) Feeler gauge
(C) Caliper (D) Dial gauge
(E) Answer not known
117. The primary purpose of circuit breakers in printing machines is _____.
- (A) To maintain temperature
(B) To regulate machine speed
(C) To control machine performance
(D) To prevent electrical overload
(E) Answer not known

118. _____ instrument used to fix blanket in offset printing machine.
- (A) Double end spanner (B) Socket spanner
(C) Torque wrench (D) Basin wrench
(E) Answer not known
119. Grease is oil that has been mixed with
- (A) Soap (B) Calcium carbonate
(C) Sodium chloride (D) Talc
(E) Answer not known
120. _____ type of cam, where springs are not required to keep the follower in contact with cam face.
- (A) Groove plate cam (B) Disk cam
(C) Translation cam (D) Tow and wip cam
(E) Answer not known
121. One of a series of rotating devices that transfer the sheet from the sheet separation unit to the feedboard
- (A) Form roller (B) Festoon roller
(C) Forwarding roller (D) Front guide roller
(E) Answer not known
122. _____ is the name of the problem when a round dot is deformed into an ellipse.
- (A) Doubling (B) Ghosting
(C) Slurring (D) Mottling
(E) Answer not known

123. The type of feeder where a number of sheets of paper traveling slower than press speed overlap on the feedboard
- (A) Stream feeder (B) Single sheet feeder
(C) Alternate sheet feeder (D) Friction feeder
(E) Answer not known
124. The ability of a blanket to recover from being momentarily subjected to excessive high pressure
- (A) Durability (B) Scratch resistance
(C) Solvent resistance (D) Smash resistance
(E) Answer not known
125. The problem that occurs when an image printed on the side of the sheet can be seen from the other side due to lack of opacity
- (A) Strike-through (B) See-through
(C) Show-through (D) Stroke-through
(E) Answer not known
126. In an offset printing machine, the aligned printing sheet is transferred directly to the impression cylinder via
- (A) Non suction drum system (B) Suction drum system
(C) Stop drum system (D) Ranger drum system
(E) Answer not known

127. A _____ folder folds the web by pulling it over a triangular shaped board.
- (A) Jaw (B) Chopper
(C) Former (D) Combination
(E) Answer not known
128. _____ are used to position one half of a web on top of the other half.
- (A) Former (B) Folder
(C) Turner bar (D) Jogger
(E) Answer not known
129. Area of a printing plate that marks the portion used to clamp the plate to the plate cylinder is called
- (A) Cylinder line (B) Descender line
(C) Common line (D) Cylinder layout
(E) Answer not known
130. Web offset press where each unit consists of only one blanket and impression cylinder combined with an inking and dampening system is called
- (A) Off line press
(B) In line press
(C) Common impression cylinder press
(D) Blanket of blanket press
(E) Answer not known

131. The chill roll section, where heat set inks are cooled and set and the number of chill rolls needed is dependent upon the
- (A) Size of the machine
 - (B) Type of dryer
 - (C) Press speed
 - (D) Amount of pressure applied
 - (E) Answer not known
132. _____ measurement is essential for evaluating print density.
- (A) Fluorescence
 - (B) Brightness
 - (C) Reflectance
 - (D) Whiteness
 - (E) Answer not known
133. An offset lithographic press that prints on a continuous web, or ribbon, of paper fed from a roll and threaded through the press
- (A) Sheet fed offset
 - (B) Web offset
 - (C) Small offset
 - (D) Baby offset
 - (E) Answer not known
134. An auxiliary equipment found in sheet fed offset which measures the image area percentages of a plate
- (A) Plate scanner
 - (B) Densitometer
 - (C) Remote control console
 - (D) Spectrophotometer
 - (E) Answer not known

135. The exact alignment of the sheet in the travel direction or direction of print in an offset printing machine is done by
- (A) Gripper (B) Side Lay
(C) Front Lay (D) Suction Plate
(E) Answer not known
136. The continuous splitting, or separation of the paper's surface caused by the tack of the ink and the rubber blanket.
- (A) Desensitization (B) Deionization
(C) Delamination (D) Dry dusting
(E) Answer not known
137. _____ proofs are required to check the completeness and correct location of text and image.
- (A) Position (B) Galley
(C) Colour (D) Cromalin
(E) Answer not known
138. The acceptance behaviour of the ink in wet-on-wet overprinting of several inks is called
- (A) Trapping (B) Ghosting
(C) Mottling (D) Register
(E) Answer not known

139. The _____, incorporated in many GATF test forms, is a test image that visually shows variations in the amount of slur, doubling along its length, when printed around the cylinder.
- (A) Gray balance chart (B) Ladder target
(C) SNOP calibration kit (D) Color control bars
(E) Answer not known
140. Black solids appear gray, color solids are weak and under magnification, solids appear uneven and full of tiny white specks. The problem is called
- (A) Snowflaky solids (B) Scum streaks
(C) Water streaks (D) Tinting
(E) Answer not known
141. One of the following is not present in the currency note
- (A) Planchettes (B) MICR
(C) Microletters (D) Watermarks
(E) Answer not known

142. Match the following

- | | |
|--------------------------|----------------------------------|
| (a) Zoom lenticular | 1. Transforms into another image |
| (b) Morphing lenticular | 2. Appears to be moving |
| (c) Animation lenticular | 3. Image gets bigger or smaller |

- | | (a) | (b) | (c) |
|-----|------------------|-----|-----|
| (A) | 3 | 1 | 2 |
| (B) | 1 | 2 | 3 |
| (C) | 1 | 3 | 2 |
| (D) | 2 | 3 | 1 |
| (E) | Answer not known | | |

143. Regular wave or arch shaped lines which are produced according to mathematical laws and used in security printing is called

- | | |
|----------------------|------------------|
| (A) Guilloches | (B) Tesellation |
| (C) Watermark | (D) Microletters |
| (E) Answer not known | |

144. Assertion [A] : Corona treatment in Flexography printing increases ink adhesion on plastic substrates.
- Reason [R] : Corona treatment raises the surface energy of the substrate.
- (A) Both [A] and [R] are true, and [R] is the correct explanation for [A]
- (B) Both [A] and [R] are true, but [R] is not the correct explanation for [A]
- (C) [A] is true, but [R] is false
- (D) [A] is false, but [R] is true
- (E) Answer not known
145. Gravure printing is also known as “intaglio printing” this terminology is used particularly often for ————— engraving in security printing.
- (A) Copper (B) Steel
- (C) Laser (D) Carbon
- (E) Answer not known
146. ————— perforators oscillate along the web travel direction and perforate two rows of stamps running synchronously with the movement of the web.
- (A) Comb (B) Stroke
- (C) Engraving (D) Die cutting
- (E) Answer not known

147. The printing of continuous serial numbers on a bank note is done by sheet fed printing on a separate _____ machine.
- (A) Offset (B) Gravure
(C) Flexo (D) Letterpress
(E) Answer not known
148. _____, innovation has been developed to enhance the reading experience.
- (A) Printed books (B) Electronic books
(C) Newspaper (D) Magazines
(E) Answer not known
149. The future development anticipated to enable the creation of new Print-on-Demand (PoD) products is through
- (A) Increased use of paper backs
(B) Digital libraries paired with automatic content generating techniques
(C) Enhanced traditional printing methods
(D) Manual content editing
(E) Answer not known
150. _____ display is a bistable display.
- (A) LED display (B) LCD
(C) CRT display (D) Electronic Ink display
(E) Answer not known

151. The activation of hyperlinks on web sites and participation in news boards are characterized by an active recall and self – determined access to information of online advertisement is called
- (A) Push strategy (B) Pull strategy
 (C) Pulse strategy (D) Pure strategy
 (E) Answer not known

152. In data transfer, ATM is the acronym for
- (A) Asynchronous Transfer Mode
 (B) Augmented Transfer Mode
 (C) Asynchronous Tagged Mode
 (D) Augmented Tagged mode
 (E) Answer not known

153. Match the following digital media types with their descriptions

Digital media type	Description
(a) eBook	1. An online platform for distributing and reading journals
(b) eJournal	2. A digital version of newspapers that can be accessed through the web
(c) eNewspaper	3. An electronic book format for reading on various devices
(d) Internet Advertising	4. Promotional content displayed on websites and social media platforms

- | | (a) | (b) | (c) | (d) |
|-----|------------------|-----|-----|-----|
| (A) | 4 | 3 | 1 | 2 |
| (B) | 2 | 1 | 4 | 3 |
| (C) | 3 | 1 | 2 | 4 |
| (D) | 1 | 2 | 3 | 4 |
| (E) | Answer not known | | | |

154. _____ inkjet technology is also called as bubble jet.
- (A) Thermal Ink Jet
 - (B) Piezo Ink Jet
 - (C) Electrostatic Ink Jet
 - (D) Binary Deflection Continuous Ink Jet
 - (E) Answer not known
155. _____ security ink changes from one color to another when exposed to heat
- (A) Erasable ink
 - (B) Pen reactive ink
 - (C) Coin reactive ink
 - (D) Thermochromic ink
 - (E) Answer not known
156. In single – colour printing NIP technologies using powder toners create an ink layer on paper that has a thickness of
- (A) 5 – 10 μm
 - (B) 1 μm
 - (C) 10 – 20 μm
 - (D) 20 – 30 μm
 - (E) Answer not known
157. In non impact printing _____ systems designed for process colour reproduction have only one printing unit which is successively connected to several inking units corresponding to the different colours of the colour separations.
- (A) Multi pass
 - (B) Single pass
 - (C) Double pass
 - (D) Triple pass
 - (E) Answer not known

158. In magnetography the toner is fixed by fusing through heat radiation by so called 'flash fusing unit' comprises of _____ as a source.
- (A) Xenon lamps (B) LED
(C) D₅₀ (D) Tungsten filament
(E) Answer not known
159. The Non-Impact printing technology has the capacity to print variable information on every sheet, hence the _____ is not the correct/suitable option for using NIR effectively.
- (A) Book production (B) Print on demand
(C) Personalisation (D) Book on demand
(E) Answer not known
160. Which of the following is a characteristic of Non-Impact Printing technology (NIP)?
- (A) Uses physical contact between the printing plate and substrate
(B) Utilizes ink jet or laser technologies without physical contact
(C) Requires the use of metal plates for printing
(D) Involves pressing a raised surface onto paper
(E) Answer not known
161. The screen printing machine design in which a perforated vacuum printing drum carries the stock beneath a reciprocating screen.
- (A) Flat-bed presses (B) Carousel machine
(C) Rotary screen (D) Cylinder-bed presses
(E) Answer not known

162. The correct 5 stages of electrophotography printing principles are _____, _____, _____, _____ and _____.
- (A) Coating, Fusing, Inking, Tone Transfer, Cleaning
 - (B) Imaging, Inking, Toner Transfer, Toner fixing, Cleaning
 - (C) Inking, Cleaning, Imaging, Toner fusing, Ripping
 - (D) Cleaning, Coating, Inking, Toner Transfer, Fusing
 - (E) Answer not known
163. When the tension on the screen fabric is increased, the fabric thickness
- (A) No change
 - (B) Increases
 - (C) Decreases
 - (D) Nominal fabric thickness
 - (E) Answer not known
164. The process that increases the surface area of the threads in mesh used in screen printing
- (A) Fabric reclamation
 - (B) Fabric abrading
 - (C) Fabric treatment
 - (D) Fabric decreasing
 - (E) Answer not known
165. The common application of digital presses is
- (A) Large scale newspaper printing
 - (B) Custom short run printing
 - (C) High volume packaging
 - (D) High volume book work
 - (E) Answer not known

166. Solventless inks dry by _____ in screen printing process.
- (A) Polymerization (B) Evaporation
(C) Absorption (D) Diffusion
(E) Answer not known
167. The _____ stencils are produced by contacting an opaque positive image to a light sensitive stencil film.
- (A) Wax resist method (B) Block out method
(C) Knife cut stencil (D) Indirect photostencil
(E) Answer not known
168. In _____ process, ink is pressed through a fine open mesh fabric held in a frame.
- (A) Lithography printing (B) Screen printing
(C) Digital printing (D) Letterpress printing
(E) Answer not known
169. The sequence of gravure cylinder making involves _____, _____, _____ and _____ respectively
- (A) Chrome plating, copper plating, milling, etching
(B) Copper plating, milling, etching, chrome plating
(C) Milling, copper plating, chrome plating, etching
(D) Milling, etching, copper plating, chrome plating
(E) Answer not known

170. In gravure press, the drive gear box contain gear box and servo motors for the circumferential and lateral registration as well as the drive for the axial reciprocating motion of
- (A) Impression roller
 - (B) Reel stand
 - (C) Doctor blade
 - (D) Buzzle wheel
 - (E) Answer not known
171. High performance cylinders for publication printing in gravure process are made of
- (A) Cold drawn steel
 - (B) Aluminum
 - (C) Manganese
 - (D) Synthetic material
 - (E) Answer not known
172. The system that produces printing pressure when the impression roller is forced downwards against gravure cylinder
- (A) Moving cylinder impression system
 - (B) Moving rubber roll impression system
 - (C) Moving impression loading devices
 - (D) Moving impression setting system
 - (E) Answer not known
173. The point of contact between the engraved cylinder and the impression roll is called
- (A) Dwell
 - (B) Skip
 - (C) Nip
 - (D) Dot
 - (E) Answer not known

174. The _____ gravure cylinders have shafts that are permanently attached to it.
- (A) Mandrel type (B) Sleeve type
(C) Integral shaft type (D) Ballard shell type
(E) Answer not known
175. The angle between the blade and the cylinder is called the
- (A) Counter (B) Depth
(C) Cylinder gap (D) Width
(E) Answer not known
176. What is the major advantage of ceramic base anilox roller?
- (A) Low execution timing for production
(B) Comparitively low cost
(C) Different cell volumes possible with same screen ruling
(D) Restricted cell volume by production process
(E) Answer not known
177. In flexography process, the type of cooling mechanism typically used in chill rolls is
- (A) air cooling (B) oil cooling
(C) water circulation (D) liquid nitrogen
(E) Answer not known

178. The _____ is the imaging exposure made through the negative held in contact by a vacuum and a flexible drawdown sheet in flexo plate making.

- (A) face exposure
- (B) back exposure
- (C) shoulder exposure
- (D) floor exposure
- (E) Answer not known

179. Match the following in the various components of photo polymer plate :

- | | |
|--------------|---|
| (a) Caliper | 1. distance from floor to top of image area |
| (b) Floor | 2. support for the printable area |
| (c) Shoulder | 3. total height of printing plate |
| (d) Relief | 4. the non printable area |

- | | | | | |
|-----|------------------|-----|-----|-----|
| | (a) | (b) | (c) | (d) |
| (A) | 3 | 4 | 2 | 1 |
| (B) | 4 | 3 | 1 | 2 |
| (C) | 1 | 2 | 3 | 4 |
| (D) | 2 | 1 | 4 | 3 |
| (E) | Answer not known | | | |

180. A type of photopolymer plate that has a thin harder image surface lies a top a lower clarometer polymer base is classified as

- (A) Image contrast plate
- (B) Metal backed plate
- (C) Capped plate
- (D) Compressible plates
- (E) Answer not known

181. A binding is said to have good Binding stability if :
- (A) Thread stitched blocks can be opened up easily upto the spine
 - (B) The inner sheet sections can push forwards after the 3-page trim
 - (C) Glue lines are visible and run through the thread holes
 - (D) Removal of individual block sections from the stitched block is possible only by damaging the paper
 - (E) Answer not known
182. A type of adhesive binding where back of the book is not sawn off, but is slit/slot punched to allow for glue penetration.
- (A) burst binding
 - (B) ring binding
 - (C) slit binding
 - (D) comb binding
 - (E) Answer not known
183. In the cutting machine, a metal bar that runs parallel to the knife and placed at a 90° angle to the table
- (A) Back gauge
 - (B) Side gauge
 - (C) Split gauge
 - (D) Clamp
 - (E) Answer not known
184. The _____ is the preferred method for binding thicker pagination magazines, directories and paperback books where economy is a prime consideration.
- (A) Perfect binding
 - (B) Thread stitching
 - (C) Loose leaf binding
 - (D) Mechanical binding
 - (E) Answer not known

185. Soft materials requires ————— clamping pressure.
- (A) High
 - (B) Low
 - (C) Moderate
 - (D) Medium
 - (E) Answer not known
186. When a number of single sheets are collectively folded once, the technique is known as
- (A) Lamp folding
 - (B) Knife folding
 - (C) Buckle folding
 - (D) Combination folding
 - (E) Answer not known
187. The other name of sawn-in sewing
- (A) French sewing
 - (B) Raised cord sewing
 - (C) Recessed cord sewing
 - (D) Tape sewing
 - (E) Answer not known
188. The gap between the knife folder rollers are set depending on
- (A) Roller diameter
 - (B) Speed of rotation
 - (C) Thickness of the sheet
 - (D) Knife
 - (E) Answer not known
189. The part of the wire stitching machine that closes the stitch
- (A) Saddle
 - (B) Clenchers
 - (C) Bender
 - (D) Feeder
 - (E) Answer not known

190. Which of the following factors influences the cutting resistance of knives in guillotine machines?
- (A) Printing ink characteristics
 - (B) Printing machine bed size
 - (C) Trimming parameters
 - (D) Structure and condition of knife
 - (E) Answer not known
191. Identify the decorative operations in binding
- (A) Coloured embossing and foil embossing
 - (B) Trimming and cutting
 - (C) Sewing and stitching
 - (D) Gathering and collating
 - (E) Answer not known
192. _____ part of the die, facilitates the release of board from the cutting rule.
- (A) Cutting rule
 - (B) Creasing rule
 - (C) Rubber ejector
 - (D) Perforating rule
 - (E) Answer not known
193. The addition of a loose printing slip or document added to a book or magazine after it is bound
- (A) Inserting
 - (B) Insetting
 - (C) Signature
 - (D) Section
 - (E) Answer not known

194. The _____ are used in the food packaging industry to promote resistance to moisture, oxygen and UV light.
- (A) Barrier coatings (B) Overprint coatings
(C) Inline coatings (D) UV coatings
(E) Answer not known
195. The material most commonly used to manufacture collapsible tubes.
- (A) Glass (B) Steel
(C) Aluminium (D) Fluted board
(E) Answer not known
196. _____ finishing technique used to create a raised design on printed materials.
- (A) Embossing (B) Foil stamping
(C) Die cutting (D) Laminating
(E) Answer not known
197. What is multi-unit packaging?
- (A) More than one product item is put in one package
(B) More than one operation is done to make one package
(C) More than one machine is needed to make one package
(D) More than one raw material is needed to make one package
(E) Answer not known
198. Applying coating to a specific section of the printed piece
- (A) Electron beam coating (B) Ultra violet coating
(C) Spot coating (D) Overprint coating
(E) Answer not known

199. The modified folding carton making machine can form and apply tubes of flexible packaging materials to carton blanks, prior to side seam sealing for _____ cartons.
- (A) Bag-in box (B) Shell-in box
(C) Tray-in box (D) Flap-in box
(E) Answer not known
200. The space-providing packaging media, formed from one or more flat cuttings that are easy to manipulate, stack, store and transport
- (A) Envelops (B) Trays
(C) Boxes (D) Bundles
(E) Answer not known
-