

Sl. No. : 40000017

AWMPT/17

Register
Number

| | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|
| | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|

2017

**PRINTING TECHNOLOGY
(Diploma Standard)**

Time Allowed : 3 Hours]

[Maximum Marks : 300

Read the following instructions carefully before you begin to answer the questions.

IMPORTANT INSTRUCTIONS

1. The applicant will be supplied with Question Booklet 10 minutes before commencement of the examination.
2. This Question Booklet contains 200 questions. Prior to attempting to answer the candidates are requested to check whether all the questions are there and ensure there are no blank pages in the question booklet. In case any defect in the Question Paper is noticed it shall be reported to the Invigilator within first 10 minutes and get it replaced with a complete Question Booklet. If any defect is noticed in the Question Booklet after the commencement of examination it will not be replaced.
3. Answer all questions. All questions carry equal marks.
4. You must write your Register Number in the space provided on the top right side of this page. Do not write anything else on the Question Booklet.
5. An answer sheet will be supplied to you, separately by the Invigilator to mark the answers.
6. You will also encode your Register Number, Subject Code, Question Booklet Sl. No. etc. with Blue or Black ink Ball point pen in the space provided on the side 2 of the Answer Sheet. If you do not encode properly or fail to encode the above information, action will be taken as per commission's notification.
7. Each question comprises *four* responses (A), (B), (C) and (D). You are to select **ONLY ONE** correct response and mark in your Answer Sheet. In case you feel that there are more than one correct response, mark the response which you consider the best. In any case, choose **ONLY ONE** response for each question. Your total marks will depend on the number of correct responses marked by you in the Answer Sheet.
8. In the Answer Sheet there are four circles (A), (B), (C) and (D) against each question. To answer the questions you are to mark with Ball point pen **ONLY ONE** circle of your choice for each question. Select one response for each question in the Question Booklet and mark in the Answer Sheet. If you mark more than one answer for one question, the answer will be treated as wrong. e.g. If for any item, (B) is the correct answer, you have to mark as follows :

(A) ● (C) (D)
9. You should not remove or tear off any sheet from this Question Booklet. You are not allowed to take this Question Booklet and the Answer Sheet out of the Examination Hall during the examination. After the examination is concluded, you must hand over your Answer Sheet to the Invigilator. You are allowed to take the Question Booklet with you only after the Examination is over.
10. The sheet before the last page of the Question Booklet can be used for Rough Work.
11. Do not tick-mark or mark the answers in the Question Booklet.
12. Failure to comply with any of the above instructions will render you liable to such action or penalty as the Commission may decide at their discretion.

SEAL

SPACE FOR ROUGH WORK

1000000

7. _____ halftone dots are prescribed for print control bars.
- (A) Square (B) Elliptical
 (C) Circular (D) Diamond
8. A newspaper article has 30 lines of text set on 10/12 points. The column depth of the article in inches is
- (A) 2.5 (B) 5.0
(C) 7.5 (D) 10.0
9. _____ is concerned with the equilibrium and visual weight of the image.
- (A) Balance (B) Dominance
(C) Proportion (D) Unity
10. In thermal transfer process, when pigments are involved, the transfer mechanism is termed as
- (A) Sublimation (B) Ablation
(C) Diffusion (D) Drop on demand
11. The device that is used to measure color values such as hue, lightness or brightness, and saturation
- (A) Inspection systems (B) Densitometer
 (C) Spectrophotometer (D) Microscope
12. The process of converting images into bitmap form for display or printing
- (A) Conversion (B) Rasterization
(C) Acceleration (D) Compression

13. The effective light source for offset plate exposure
- (A) carbon arc lamps (B) metal halide lamps
- (C) xenon lamps (D) mercury vapour lamps
14. In screen printing process printers currently use durable, _____ mesh screens that are capable of reproducing remarkable readable 6 pt. type.
- (A) ordinary iron mesh
- (B) fine cotton mesh
- (C) ultra-fine stainless steel mesh
- (D) fabric mesh
15. _____ react not to visible light but to thermal radiation and have distinctive threshold characteristic during imaging.
- (A) Thermal sensitive aluminium plates
- (B) UV based photopolymer plates
- (C) Laser based polymer plates
- (D) None of the above
16. In conventional gravure design, every well on the cylinder has
- (A) same width and same depth
- (B) same width and varying depth
- (C) varying width and same depth
- (D) varying width and varying depth
17. The process used to make photographic images visible in film/plate after exposure to light
- (A) Developing (B) Fixing
- (C) Reducing (D) Stop bathing

18. A web tension device called a _____ senses variations in web tension and corrects this by applying a brake to the web.

- (A) path roller
- (B) dancer roller
- (C) turner bars
- (D) compensator rollers

19. The type of feeder that separates and forwards one sheet at a time to the feedboard

- (A) stream feeder
- (B) air separators
- (C) double sheet feeder
- (D) single sheet feeder

20. A revolving, motorized cone-shaped device that runs on a track from one end of the ink fountain to the other, keeping the ink soft and flowing

- (A) fountain splitter
- (B) fountain height monitor
- (C) ink agitator
- (D) ink leveller

21. The formula to calculate the print contrast

(A) $\frac{D_S - D_{75}}{D_S} \times 100$

(B) $\frac{D_S - D_{50}}{D_S} \times 100$

(C) $\frac{D_S - D_{25}}{D_S} \times 100$

(D) $\frac{D_S - D_{100}}{D_S} \times 100$

22. The roller substituted for form roller to reduce ghosting

- (A) Rider roller
- (B) Oscillating form roller
- (C) Ductor roller
- (D) Fountain roller

23. _____ type of blanket resists smash in a better manner.
- (A) Conventional blanket (B) Compressible blanket
 (C) Non-compressible blanket (D) Under blanket
24. In _____ direction, the blanket is to be mounted around the circumference of the blanket cylinder.
- (A) weft direction (B) warp direction
 (C) left direction (D) drift direction
25. The press which can print atleast one color on both sides of a sheet in a single pass through the press
- (A) Multi color press (B) Small offset press
 (C) Perfecting press (D) Single color press
26. _____ roller is used to evenly distribute the dampening film.
- (A) Pan (B) Ductor
 (C) Form (D) Oscillating
27. The plate height above bearer is 0.007", the blanket height above bearer is 0.003" and the distance between bearer is 0.008" for the non-bearer contact press. The squeeze obtained from this setting is
- (A) 0.001" (B) 0.002"
 (C) 0.003" (D) 0.004"
28. In _____ printing problem, it appears as blotches and streaks in the solids and tones of an overprinted ink film on a press sheet.
- (A) Hickeys (B) Scumming
 (C) Back-trap mottle (D) Ghosting

29. The impression roller that automatically change its shape to conform to the amount of impression roller deflection
- (A) back up roller
 - (B) dual back up roller
 - (C) turret impression roller
 - (D) flexible impression roller
30. The angular measurement where the surface of the gravure cylinder is free of ink prior to printing
- (A) dry angle
 - (B) wet angle
 - (C) contact angle
 - (D) set angles
31. Whenever the web stops, the gravure cylinder must continue to rotate slowly in the ink pen and called as
- (A) cylinder agitation
 - (B) electroplating
 - (C) doctor blade floating
 - (D) granty floating
32. The coating plated over the surface of a gravure cylinder to have easy engravability
- (A) chromium
 - (B) copper
 - (C) nickel
 - (D) aluminum
33. Specks of dust on the clear areas of the positive as on the contact frame glass causes
- (A) Early stencil breakdown
 - (B) Adhesion failure
 - (C) Edge curl
 - (D) Pin holes
34. Intaglio printing process refers to
- (A) gravure
 - (B) screen
 - (C) digital
 - (D) offset

35. Match List I with List II and select the correct answer using the codes given in below list :

- | List I
(Printing processes) | | List II
(Image carriers) | |
|--------------------------------|--|-----------------------------|--|
| (a) Letterpress | | 1. PS plate | |
| (b) Offset | | 2. Photo polymer plate | |
| (c) Gravure | | 3. Metal Block | |
| (d) Flexo | | 4. Copper cylinder | |

- | | (a) | (b) | (c) | (d) |
|-----------------------------------------|-----|-----|-----|-----|
| <input checked="" type="checkbox"/> (A) | 3 | 1 | 4 | 2 |
| (B) | 3 | 4 | 1 | 2 |
| (C) | 4 | 3 | 2 | 1 |
| (D) | 3 | 2 | 1 | 4 |

36. The exposure done to harden or cure the base of the flexographic plates

- | | |
|-------------------|-------------------------------------------------------|
| (A) Face exposure | (B) Post exposure |
| (C) Main exposure | <input checked="" type="checkbox"/> (D) Back exposure |

37. A cylinder base design in which the supporting shaft is permanently attached to the printing cylinder

- | | |
|------------------------------------------------------------------|-----------------------------|
| (A) Sleeve cylinders | (B) Mandrel shaft cylinders |
| <input checked="" type="checkbox"/> (C) Integral shaft cylinders | (D) Seamless cylinders |

38. _____ is the ink metering roll in flexographic process and is made of either steel or ceramic materials.

- | | |
|--------------------|-----------------------------------------------------|
| (A) Fountain roll | <input checked="" type="checkbox"/> (B) Anilox roll |
| (C) Plate cylinder | (D) Impression cylinder |

39. _____ involve the selective charging of a dielectric surface by exposure to an electron beam or discharging of a photo conductive surface by exposure to light.

- | | |
|-----------------------------------------------------------------|-----------------------|
| <input checked="" type="checkbox"/> (A) Electrostatic processes | (B) Ink jet printing |
| (C) Thermal printing | (D) None of the above |

40. In binding, the stitch at the top and bottom of the spine which connects each signature to the following one.
- (A) Kettle stitch (B) Wire stitching
(C) Saddle stitching (D) Side stitching
41. Breaking of the fibers in paper or board to facilitate folding or bending
- (A) Round cornering (B) Numbering
(C) Gumming (D) Creasing
42. 'Squareness' of trimmed paper is obtained by utilizing the _____ component of the cutting machine.
- (A) Back gauge (B) Side plates
(C) Clamp plate (D) Cutting stick
43. The operation of putting lines on blank or preprinted sheets
- (A) Ruling (B) Pad making
(C) Edge decoration (D) Blocking
44. In saddle stitching, the thickness of the bound should not exceed
- (A) 9 mm (B) 7 mm
(C) 3 mm (D) 4 mm
45. Two or more folds parallel to each other with adjacent folds in opposite directions
- (A) Accordion fold (B) Zig zag fold
(C) Gate fold (D) Quire fold
46. Binding printed matter by piercing the pages and securing them together with wire or thread
- (A) stitching (B) sewing
(C) binding (D) perfect binding

47. The size of A3 paper
- (A) 148 × 210 mm (B) 210 × 297 mm
(C) 297 × 420 mm (D) 420 × 524 mm
48. The packaging board that has middle layer of mechanical pulp sandwiched by bleached chemical pulp
- (A) solid bleached board
(B) folding box board
(C) solid unbleached board
(D) corrugated board
49. Screen Printing Inks usually dry by a combination of _____ and _____ process.
- (A) precipitation and absorption
(B) evaporation and oxidation
(C) absorption and penetration
(D) setting and drying
50. The most common application of thermoforms is for various forms of _____ display packaging.
- (A) pouch (B) blister
(C) bags (D) bottles
51. The moisture passing through the film in a given time is measured and reported as _____ for a packaging film.
- (A) WVTR (B) OTR
(C) Gas transmission rate (D) Moisture level
52. _____ ISO standard defines the measurement of brightness in paper.
- (A) ISO 4698 (B) ISO 2461
(C) ISO 2469 (D) ISO 4662

53. _____ layers of flutes are in Double Wall corrugated board.
- (A) 1 (B) 3
(C) 4 (D) 2
54. The reflection densities of magenta, cyan, yellow and their two – colour over prints are used in the following formula to determine trapping percentage
- (A) trapping percentage = $\frac{D_{OP} - D_1}{D_2} \times 100$
- (B) trapping percentage = $\frac{D_1 - D_{OP}}{D_2} \times 100$
- (C) trapping percentage = $\frac{D_{OP} - D_1}{D_2}$
- (D) trapping percentage = $\frac{D - D_1}{D_2} \times 100$
55. _____ are made by grinding the dry pigment into the varnish and dispersing with other additives required to modify flow, tack and film properties.
- (A) Liquid Inks (B) Paste Inks
(C) UV Inks (D) EB Inks
56. _____ is a measure of the tightness to which the capping machine turns the closure.
- (A) Application torque (B) Thickness
(C) Rim size (D) Closure design
57. _____ is the standard glass colorants for green glasses used in packaging applications.
- (A) Iron (B) Cobalt oxides
(C) Chrome oxides (D) Sulfur
58. The standard followed for measuring smoothness of paper by air leak principle is _____.
- (A) TAPPI T479 (B) TAPPI T538
(C) ASTM 478 (D) ISO 489

59. The method of extracting each and every expense related to a job from the customer
- (A) Allocation of expenses
 (B) Recovery of expenses
 (C) Distribution of expenses
 (D) Identification of expenses
60. The total expenditure incurred to produce, store and sell one unit of a product or service called
- (A) Fixed Cost
 (B) Unit Cost
 (C) Variable Cost
 (D) Overhead Cost
61. The type of cost that has no direct relationship with the number of copies of the publication produced
- (A) Fixed Cost
 (B) Variable Cost
 (C) Direct Cost
 (D) Indirect Cost
62. Substance of paper (GSM), the width of the reel (B) and the total length of paper (L) is wrapped in a reel. The weight of the reel (W_R) is calculated by
- (A) $W_R = (GSM + B + L)/1000$
 (B) $W_R = (GSM \times B) + L/1000$
 (C) $W_R = (GSM \times L) + B/1000$
 (D) $W_R = (GSM \times B \times L)/1000$
63. The formula for calculating the ink consumption (kg) for a print job
- (A) (SPANKS_G)/355
 (B) (SPAK)/355
 (C) (SPAN)/355
 (D) (SANKS_G)/355
64. Pasting area per book in m^2 (A), no. of books (N), coverage power of paste per kg in m^2 (P) is given, the paste required (kg) for the job is calculated by
- (A) $(A \times N)/P$
 (B) $(A)/(N \times P)$
 (C) $(A + N)/P$
 (D) $(A)/(N + P)$

65. A proforma on which directly chargeable and indirectly chargeable hours of work done by each worker on any day is recorded individually
- (A) Office Work Ticket (B) Daily Docket
 (C) Work Instruction Ticket (D) Progress Slip
66. At this level, an order is placed equal to the order quantity, so that it arrives at the end of the lead time
- (A) Maximum Inventory Level (B) Minimum Inventory Level
 (C) Reorder Level (D) Zero Inventory Level
67. The cost of an item is Rs. 40. Annual holding costs are 18% of unit cost for interest charges, 1% for insurance, 2% allowance for obsolescence, Rs. 2 for building overheads, Rs. 1.50 for damage and loss and Rs. 4 for miscellaneous costs. Annual demand is 1000 units and each order costs Rs. 100 to place. What is the EOQ?
- (A) 113 units (B) 155 units
 (C) 163 units (D) 166 units
68. Which job will be scheduled as the last in the given data?
- | Book | 1 | 2 | 3 | 4 | 5 | 6 |
|--------------------------|----|-----|----|----|----|-----|
| Printing time (in hours) | 30 | 120 | 50 | 20 | 90 | 110 |
| Binding time (in hours) | 80 | 100 | 90 | 60 | 30 | 10 |
- (A) 3 (B) 4
 (C) 5 (D) 6
69. The performance efficiency rate for an equipment whose actual production is 129,000 sheets per day, running speeds is 11,000 iph, maximum speed is 15,000 iph and available operating time is 960 minutes is _____.
- (A) 24% (B) 54%
 (C) 73% (D) 83%

70. _____ is a machine element, distorts when loaded and recovers when load is removed.
- (A) spring (B) cam
(C) follower (D) limit switch
71. The maintenance carried systematically to prevent sudden failure/shutdown
- (A) emergency maintenance
(B) preventive maintenance
(C) predictive maintenance
(D) contract maintenance
72. The voltage across a dark room safety light is 10 V, and the current is 5 A what is the resistance in ohms?
- (A) 2.00 (B) 20.00
(C) 0.20 (D) 0.02
73. Contacting element of a cam is
- (A) Disc (B) Groove
(C) Roller (D) Follower
74. Interference pressure in a blanket to blanket press in mm is
- (A) 1.00 (B) 0.20
(C) 1.50 (D) 0.50
75. Instrument required for blanket fixing is
- (A) Torque wrench (B) Wrench
(C) Spanner (D) Box spanner

76. _____ is a common cause of streaks in dampening system.
- (A) Frozen cam followers
 - (B) Broken gripper bars
 - (C) Pneumatic control failure
 - (D) Bearing failures
77. Open gears require _____ maintenance.
- (A) Daily
 - (B) Monthly
 - (C) Semi annual
 - (D) Annual
78. pH of neutral water is
- (A) 1.0
 - (C) 7.0
 - (B) 6.0
 - (D) 14.0
79. In multi-colour printing register deviations beyond which value is unacceptable
- (A) 1 micron
 - (B) 0.1 micron
 - (C) 0.4 micron
 - (D) 40.0 micron
80. Plate Preserving Gum Arabic solution should be in °Baume
- (A) 30 - 40
 - (B) 15 - 20
 - (C) 0 - 5
 - (D) 6 - 10
81. Thickness of film strip in mm, used to set the roller pressure is
- (A) 0.05
 - (B) 0.10
 - (C) 0.15
 - (D) 0.20

88. _____ is the metal used for producing digital imaging by laser engraving for gravure printing.
- (A) Copper (B) Chromium
 (C) Zinc (D) Nickel
89. In all computer to print systems _____ is used to convert the digital data supplied in the post script format into a bitmap so that the data can be processed by printing systems.
- (A) Image file (B) Digital data
 (C) Raster image processor (D) CIP3
90. In computer to plate systems, digitally controlled imaging systems create the printing image _____ on the printing plate.
- (A) dot per dot (B) pixel per dot
 (C) pixel per pixel (D) dot per pixel
91. Metal powder are used as raw material in this 3D printing technology
- (A) Selective laser sintering
(B) Fused deposition molding
(C) Electron beam melting
(D) Stereo lithography
92. _____ oscillate along the web travel direction and perforate two rows of stamps running synchronously with the movement of the web.
- (A) Comb perforators
(B) Grinding perforators
(C) Slitters
(D) Stroke perforators

93. The invisible image present on the image carrier before developing is called as
- (A) embedded image
 - (B) latent image
 - (C) encoded image
 - (D) hidden image
94. The input resolution is expressed as
- (A) pixels per inch
 - (B) dots per inch
 - (C) lines per inch
 - (D) screen frequency
95. _____ file format has a main file with a pre-view image in low resolution and individual files containing high resolution data.
- (A) TIFF
 - (B) JDF
 - (C) EPS
 - (D) JPEG
96. _____ layer of the waterless offset plate acts as the non image area
- (A) Aluminum base layer
 - (B) Photopolymer layer
 - (C) Silicone layer
 - (D) Polymer layer
97. The expansion for MICR in security printing
- (A) Magnetic Ink Character Recognition
 - (B) Magnetic Image Character Recognition
 - (C) Magnetic Ink Color Recognition
 - (D) Magnetic Image Color Recognition

98. The process used to transfer a coloured layer of wax or thermoplastic material from a ribbon to a substrate using heat
- (A) Thermal printing
 - (B) Continuous ink jet printing
 - (C) Drop on demand
 - (D) Phase change ink jet printers
99. The software "Illustrator" allows you to
- (A) Create spreadsheets
 - (B) Edit photographs
 - (C) Only draw in straight lines
 - (D) Create your own illustrations
100. The process of adjusting the color in a scanned image so that it more closely matches the original image, or to compensate for flaws (such as overexposure, unexposure or color casts) in the original image
- (A) Color theory
 - (B) Color matching
 - (C) Color proofing
 - (D) Colour correction
101. The process in which the least dominant process color is replaced with an appropriate value of black in areas where yellow, magenta and cyan overprint
- (A) Unsharp masking
 - (B) Retouching
 - (C) Under color removal
 - (D) Gray component replacement
102. The lightest or whitest parts in a photograph
- (A) Shadow
 - (B) Highlight
 - (C) Gray
 - (D) Middle tone

103. Half sheet work method used for printing book work is also known as
- (A) Work and turn
 - (B) Folio
 - (C) Imposition
 - (D) Layout
104. White space on the outer edge of the book page
- (A) Head
 - (B) Foot
 - (C) Fore edge
 - (D) Backs
105. The process of digitizing an image into raster format is called
- (A) Editing
 - (B) Scaling
 - (C) Image scanning
 - (D) Analysing
106. _____ rendering intent is used to produce proofs by mapping white point of the source to destination.
- (A) Absolute colorimetric
 - (B) Relative colorimetric
 - (C) Perceptual
 - (D) Saturation
107. The data format that allows to represent both raster and vector image data
- (A) TIFF
 - (B) JPEG
 - (C) PDF
 - (D) BMP
108. _____ process converts screened data into a continuous-tone file.
- (A) Copydot
 - (B) Descreening
 - (C) Halftoning
 - (D) Magnifying

109. The quality control aid that appears along with color bar and helps the press man to detect any irregularity in the ink spread
- (A) Plate sensitivity guide (B) Star targets
 (C) Gray scale (D) Stouffer wedge
110. The electro deposition of an adherent metallic coating on an electrode for the purpose of securing a surface with properties or dimension different from those of base material
- (A) Electrochemical coating (B) Metallised coating
 (C) Electroplating (D) Metal fusing
111. The process of dissolving unevenly a part of the surface of a metal using an acid or other corrosive substance
- (A) Diffusing (B) Diluting
 (C) Thickening (D) Etching
112. In screen stencils making by 5-star film method, _____ is used as an oxidizing agent.
- (A) hydrogen peroxide (B) hydrogen chloride
 (C) ammonium nitrate (D) zinc chloride
113. The device that measures the image area percentage at selected area across the printing plate
- (A) Polariscope (B) Image setter
 (C) Drum scanner (D) Plate scanner
114. The common material used for offset plate graining
- (A) charcoals (B) marbles
 (C) wood chips (D) lime stones

115. Before etching the surface of the gravure/cylinder which is not to be etched is covered with
- (A) Copper (B) UV
 (C) Asphaltum (D) Chloride
116. Sleeve is a plate used in _____ printing process.
- (A) offset (B) flexo
(C) screen (D) digital
117. Scumming occurs on press when _____ areas accept ink.
- (A) printing area (B) non-image area
(C) image area (D) dampening area
118. The most common offset plate metals used is
- (A) Silver (B) Aluminium
(C) Magnesium (D) Iron
119. The flexographic plate are attached to the plate cylinder with double sided adhesive tape called _____, which may be solid vinyl or cushion type.
- (A) backing (B) paste
 (C) sticky back (D) gumming
120. The wavelength of thermal laser diode is
- (A) 532 nm (B) 630 nm
(C) 670 nm (D) 830 nm
121. A thin coating of aluminium oxide is created for offset plates by a process called
- (A) Galvanizing (B) Burnishing
(C) Graining (D) Anodizing

122. The roller that alternately contacts the ink fountain roller and the first roller of the inking system
- (A) Ductor roller (B) Intermediate roller
(C) Form roller (D) Fountain roller
123. Gear drive for cylinders in quality offset machine consists of
- (A) Helical (B) Worm
(C) Spur (D) Bewel
124. The delivery assist device which helps to counter tail-end hook problem
- (A) Suction slow-down rollers
(B) Blow-downs
(C) Skeleton wheels
 (D) Wedges
125. The method of perfecting on a CIC web press
- (A) Perfecting (B) Converting
 (C) Double ending (D) Imprinting
126. The expansion for RTF in web offset
- (A) Roller-top-of-folder
 (B) Roller-top-of-former
(C) Rider-top-of-former
(D) Rider-top-of-folder
127. The device that aids the visual inspection of a moving web as if in a frozen state
- (A) Magnifier (B) Stroboscope
(C) Microscope (D) Stereoscope

134. _____ is a term used to describe the jagged edges which are sometimes produced in prints that are made from direct stencils.
- (A) Saw tothing
 - (B) Scroing
 - (C) Degreasing
 - (D) None of the above
135. The printing process that produces an image by transferring individual drops of ink from an opening through airgap to a printing surface
- (A) magnetography
 - (B) electrophotography
 - (C) inkjet printing
 - (D) dye sublimation
136. In screen printing, the basic optimum exposure time is 4 minutes at a lamp distance of 1 meter and if the distance is increased to 2 meters. Calculate the new exposure time.
- (A) 16 minutes
 - (B) 9 minutes
 - (C) 5 minutes
 - (D) 12 minutes
137. _____ occurs when the centre of mass of a roller does not match the rotational axis imposed by its supporting bearings.
- (A) Imbalance
 - (B) Balance
 - (C) Cylinder wear
 - (D) Roller wear
138. In screen printing, screens are used for very close register work, the allowable tolerance across the screen would be between
- (A) 2 – 3 N/cm
 - (B) > 5 N/cm
 - (C) 0.5 – 1 N/cm
 - (D) > 7 N/cm

139. _____ type of adhesive is used in perfect binding.
- (A) Gum (B) Paste
 (C) Hotmelt (D) Glue
140. _____ is best suited for cutting a specific pattern on paper or board.
- (A) Single knife guillotine (B) Three knife trimmer
 (C) Die cutter (D) Scoring knife
141. The process of checking the gathered sections of a book for correctness
- (A) Collating (B) Gathering
(C) Collecting (D) Checking
142. _____ part of the wire stitching machine closes the stitch.
- (A) Wire spool (B) Bender
(C) Saddle (D) Clenchers
143. The three edges decorated in edge decoration of a book are
- (A) Head, spine, tail (B) Head, spine, fore edge
(C) Spine, fore edge, tail (D) Head, fore edge, tail
144. In _____ type of index cutting, half-moon cuts are made into the book.
- (A) Step indexing (B) Cut-through indexing
 (C) Thumb indexing (D) Vowel indexing
145. In book binding, the knife fold principle in folding is known as
- (A) Buckle fold (B) Single fold
(C) Double fold (D) Right angle fold

146. Printed signatures have fold marks, indicated by broken lines, that are used to set up the folder are said to be
- (A) folded to print
 - (B) folded to paper
 - (C) right angle fold
 - (D) parallel fold
147. _____ is the process of stabilization of the adhesive binding through surface pressing after the case in operation.
- (A) Jacketing
 - (B) Smashing
 - (C) Inserting
 - (D) Casing
148. _____ is used in the cutting machine to prevent the knife from becoming dull and even break.
- (A) Joggers
 - (B) Lifters
 - (C) Backgauge
 - (D) Cutting stick
149. During cutting cycle, when the knife pulls the material from beneath, the upper layers of the ream are cut shorter than the lower layer. This is termed as
- (A) Under cut
 - (B) Dip shear cut
 - (C) Oblique cut
 - (D) Over cut
150. Joining book signatures together by driving the thread through the center fold
- (A) Side sewing
 - (B) Saddle sewing
 - (C) Mechanical binding
 - (D) Loose leaf binding
151. A binding method that uses wire, plastic combs or metal rings to permanently join individual sheets of paper together
- (A) Loose leaf binding
 - (B) Mechanical binding
 - (C) Perfect binding
 - (D) Sewing

152. The radiation curing which does not require initiator
- (A) Ultraviolet (B) Laser
(C) IR (D) Electron Beam
153. Paper of _____ gsm is defined as paper board or board by ISO.
- (A) below 200 gsm (B) 150 gsm
(C) 120 gsm (D) over 200 gsm
154. The property of printing ink that describes the degree of its resistance to flow
- (A) viscosity (B) flowability
(C) density (D) thixotropy
155. _____ are used to protect the packaged products during shipping.
- (A) Paper and board
(B) Plastic materials
(C) Wood materials
 (D) Cushioning materials
156. The purpose of tamper evident closure in packaging
- (A) Security purpose
(B) Air lock purpose
(C) Child resistant
(D) Spill proof
157. When the temperature changes, the viscosity of all inks changes but paste inks also lose viscosity or body when they are stirred or otherwise sheared. This characteristic is called _____?
- (A) Length (B) Thixotropy
(C) Tack (D) Misting

158. _____ results from light being absorbed and diffused as it passes from air to fiber and back air in paper.
- (A) Opacity (B) Gloss
(C) Haze (D) Transference
159. Most of the white papers have the brightness range between _____ depending upon the type and grade.
- (A) 70 - 90 (B) 80 - 90
 (C) 60 - 90 (D) 90 - 100
160. MIS stands for
- (A) Member Identification System
 (B) Management Information System
(C) Marketing Identification System
(D) Management Improvement System
161. Splitting a product workflow into two channels
- (A) Workflow preparation
 (B) Streaming
(C) Combined workflow
(D) Joined workflow
162. The record in which the receipts and issues of materials, tools and equipments are recorded
- (A) Delivery Sheet (B) Proforma
(C) Invoice (D) Stock Record
163. Actual expenses (liabilities) incurred in a production job is called as
- (A) Sales (B) Cost
(C) Price (D) Profit

164. A person who sells printing goods and services to customers and print buyers
- (A) Printing broker
 (B) Printing sales reps.
 (C) Customer service reps.
 (D) Printing consultants
165. A technique of assessing the sale price of a job or a service scientifically
- (A) Costing
 (B) Estimating
 (C) Cost control
 (D) Budgetary control
166. CMHR of the typesetting machine is Rs. 145 and 24 pages can be typeset in 8 hour shift. Find the basic rate per page
- (A) Rs. 52.28
 (B) Rs. 50.12
 (C) Rs. 54.32
 (D) Rs. 48.33
167. Rates fixed based on specified quantum of work irrespective of the time actually spent in the production of a job
- (A) Work rate system
 (B) Time rate system
 (C) Direct Departmental Cost
 (D) Unit Cost
168. The machine is expected to run for 300 days/year, 8 hours/day at 75% of its capacity. The total hours the machine is utilized in a year will be
- (A) 1200
 (B) 1440
 (C) 1800
 (D) 1680
169. Unit cost of a book can be calculated by
- (A) $(\text{Total Fixed Cost} + \text{Total Variable Cost}) / \text{No. of copies produced}$
 (B) $(\text{Total Fixed Cost} - \text{Total Variable Cost}) / \text{No. of copies produced}$
 (C) $(\text{Total Fixed Cost} + \text{Total Variable Cost}) \times \text{No. of copies produced}$
 (D) $(\text{Total Fixed Cost} - \text{Total Variable Cost}) \times \text{No. of copies produced}$

170. _____ is a cause for the press slur and doubling.
- (A) Delivery fans not working
 - (B) Press cylinders gears are eccentric
 - (C) Excessive heat generation in machine frame
 - (D) Dampening system gear box not lubricated
171. _____ is one of the most accurate, strongest and quietest gear used in printing m/c today.
- (A) Helical gear
 - (B) Spur gear
 - (C) Rack and Pinion
 - (D) Bevel gears
172. The machine element that either rotates or slides to produce a prescribed motion.
- (A) Cam
 - (B) Gear
 - (C) Spring
 - (D) Bearing
173. _____ is one of the positive drive type belts and has no slippage.
- (A) Timing belt
 - (B) Rope belt
 - (C) Flat belt
 - (D) V - belt
174. The system that does not use any belt, chain and gear in its drive
- (A) Gear drive
 - (B) Belt drive
 - (C) Direct drive technology
 - (D) Chain drive
175. Maintenance activities performed between two overhauling is called as
- (A) Repair cycle
 - (B) Checklist
 - (C) History card
 - (D) Paint mark

176. Maintenance done before the parts getting worn-out is
- (A) Mechanical maintenance
 - (B) Electrical maintenance
 - (C) Predictive maintenance
 - (D) Corrective maintenance
177. _____ are classified as the lost time and materials after the makeready is complete and production sheets are being counted.
- (A) Startup losses
 - (B) Makeready losses
 - (C) Equipment failure losses
 - (D) Speed losses
178. _____ breakdowns result in small amounts of lost time but are very frequent in occurrence.
- (A) Sporadic
 - (B) Chronic
 - (C) Massive
 - (D) Erratic
179. In _____, repair of broken or damaged piece of equipment is done to restore necessary operating condition.
- (A) Restoration Maintenance
 - (B) Preventive Maintenance
 - (C) Predictive Maintenance
 - (D) Preplanned Maintenance
180. Daily maintenance activities are entered in
- (A) Job Planning Record
 - (B) Maintenance Request Record
 - (C) Equipment Operation and Maintenance Record
 - (D) Process Control Record

181. In quality control, _____ represents the cost incurred for all the materials and activities when the job has not been done right the first time.
- (A) Prevention cost
 - (B) Inspection and appraisal cost
 - (C) Internal failure cost
 - (D) External failure cost
182. Find the median of the given Data
592, 429, 593, 421, 583, 430, 408, 557, 575, 437
- (A) 429
 - (B) 497
 - (C) 437
 - (D) 575
183. The control chart for variable is
- (A) μ chart
 - (B) p chart
 - (C) c chart
 - (D) f chart
184. ISO 14000 is a generic standard primarily concerned with
- (A) Production
 - (B) Servicing
 - (C) Environmental
 - (D) Hospital
185. In SPC, _____ are tools which allow for easy collection and analysis of data.
- (A) Flowcharts
 - (B) Checksheets and checklists
 - (C) Scatter diagram
 - (D) Run control charts

186. _____ is one of the strategy for customer retention.
- (A) Conducting Business Survey
 - (B) Good rapport with clients
 - (C) Good rapport with Individual customer
 - (D) Good rapport with Employee
187. Men, machine, money, method and materials of management is called as
- (A) 5 S
 - (B) SPC
 - (C) 5 M
 - (D) Six Sigma
188. Expand ICC profile
- (A) International Color Consortium Profile
 - (B) International Color Consumers
 - (C) International Color Chart
 - (D) International Common Color Profile
189. _____ instrument that analyzes a color's hue, saturation and lightness.
- (A) Colorimeter
 - (B) Densitometer
 - (C) Durometer
 - (D) Luxmeter
190. _____ problem is called "snow flaking" in Gravure printing.
- (A) Scumming
 - (B) Doctor blade deflection
 - (C) Missing dots
 - (D) Non impression
191. The expansion for XML
- (A) Xerox Machine Language
 - (B) Xerox Markup Language
 - (C) Extensible Markup Language
 - (D) Extensible Machine Language

192. The very fine lines of mathematically generated pattern printed on the background of a currency note is called
- (A) Pantograph
 - (B) Code safe
 - (C) Warning bands
 - (D) Guilloches
193. The expansion for D2T2 which is a shortened term that physically and chemically defines thermal sublimation
- (A) Direct diffusion thermal transfer
 - (B) Direct digital thermal transfer
 - (C) Dye diffusion thermal transfer
 - (D) Direct dye thermal transfer
194. The inkjet technology in which the ink drop is generated only if the print image requires it.
- (A) Continuous ink jet
 - (B) Drop on demand
 - (C) Binary deflection continuous jet
 - (D) Multi-deflection continuous jet
195. OPC Means
- (A) Optical Printing Cylinder
 - (B) Organic Printing Cylinder
 - (C) Optical Photo Conductor
 - (D) Organic Photo Conductor

196. .STL file format in 3D printing refers to
- (A) Standard Template Library
 - (B) Standard Tessellation Language
 - (C) Software Tool Library
 - (D) Stereo Lithography
197. In this method, multicolored image on the blanket cylinder segment is first transferred onto a printing plate and then transferred onto a second blanket cylinder.
- (A) Offset method
 - (B) Waterless offset method
 - (C) Orlof method
 - (D) Blanket to blanket method
198. The genuineness of bank notes can easily be checked using the appropriate illumination to show the _____ in the paper and ink.
- (A) Microline
 - (B) Fluorescent particles
 - (C) Fibre nature
 - (D) None of the above
199. The meaning of the Greek word "gyro" in Gyricon e-paper is
- (A) Oscillate
 - (B) Rotate
 - (C) Jump
 - (D) Run
200. The recognizable image or pattern that appears lighter or darker than surrounding paper when viewed with a light from behind the paper.
- (A) Guilloches
 - (B) Warning bands
 - (C) High resolution graphics
 - (D) Watermarks

SPACE FOR ROUGH WORK

SPACE FOR ROUGH WORK



SPACE FOR ROUGH WORK

SEAL

