

156/2025

Question Booklet
Alpha Code

A

Question Booklet
Serial Number

Total No. of questions : 100

Time : 1 Hour 30 Minutes

Maximum : 100 Marks

INSTRUCTIONS TO CANDIDATES

1. The question paper will be given in the form of a Question Booklet. There will be four versions of question booklets with question booklet alpha code viz. A, B, C & D.
2. The Question Booklet Alpha Code will be printed on the top left margin of the facing sheet of the question booklet.
3. The Question Booklet Alpha Code allotted to you will be noted in your seating position in the Examination Hall.
4. If you get a question booklet where the alpha code does not match to the allotted alpha code in the seating position, please draw the attention of the Invigilator IMMEDIATELY.
5. The Question Booklet Serial Number is printed on the top right margin of the facing sheet. If your question booklet is un-numbered, please get it replaced by new question booklet with same alpha code.
6. The question booklet will be sealed at the middle of the right margin. Candidate should not open the question booklet, until the indication is given to start answering.
7. Immediately after the commencement of the examination, the candidate should check that the question booklet supplied to him contains all the 100 questions in serial order. The question booklet does not have unprinted or torn or missing pages and if so he/she should bring it to the notice of the Invigilator and get it replaced by a complete booklet with same alpha code. This is most important.
8. A blank sheet of paper is attached to the question booklet. This may be used for rough work.
9. **Please read carefully all the instructions on the reverse of the Answer Sheet before marking your answers.**
10. Each question is provided with four choices (A), (B), (C) and (D) having one correct answer. Choose the correct answer and darken the bubble corresponding to the question number using Blue or Black Ball-Point Pen in the OMR Answer Sheet.
11. **Each correct answer carries 1 mark and for each wrong answer 1/3 mark will be deducted. No negative mark for unattended questions.**
12. No candidate will be allowed to leave the examination hall till the end of the session and without handing over his/her Answer Sheet to the Invigilator. Candidates should ensure that the Invigilator has verified all the entries in the Register Number Coding Sheet and that the Invigilator has affixed his/her signature in the space provided.
13. Strict compliance of instructions is essential. Any malpractice or attempt to commit any kind of malpractice in the Examination will result in the disqualification of the candidate.

156/2025

Maximum : 100 marks

Time : 1 hour and 30 minutes

1. Estimating can be best described as :
 - (A) It provides accurate financial data
 - (B) It is a forecast and subject to change
 - (C) It involves calculating cost after printing
 - (D) It is synonymous with accounting
2. Which cost stated below is considered as fixed cost in estimating and costing for print jobs?
 - (A) Maintenance cost
 - (B) Paper cost
 - (C) Ink cost
 - (D) Energy cost
3. Marketing and other administrative cost refers to :
 - (A) Variable cost
 - (B) Overhead cost
 - (C) Direct cost
 - (D) Fixed cost
4. Which of the following factor does not influence towards allowance for paper/board wastage?
 - (A) Number of colours
 - (B) Room Temperature
 - (C) Paper type
 - (D) Print Quality
5. The term GSM refers to :
 - (A) Global standard measurement
 - (B) Grams per square meter
 - (C) Grayscale sensitivity method
 - (D) Grams per meter
6. Print costing helps the printer in :
 - (A) Making informed decision about resource allocation
 - (B) Improving sales of printing press
 - (C) Determining market demand
 - (D) Improving

7. What does the term ink composition refer to printing?
- (A) Ink evaporation rate
 - (B) Cost of ink per kg
 - (C) Amount of ink used
 - (D) Number of prints
8. Calculate the weight of paste required in kilograms for the pasting of end paper of 5,000 books of A5 size to the inside of the hard covers, assuming coverage power of paste used in 100m² per kg :
- (A) 3.00 kg
 - (B) 3.15 kg
 - (C) 3.70 kg
 - (D) 4.00 kg
9. Estimate the quantity of stitching wire required for making 1,50,000 books in Dy(1×4) size. There are two wire staples in each answer book and each stitches requires about 30mm wire of 22 gauge (assuming length of wire per kg of 22 gauge in 285 metres) :
- (A) 33 kg
 - (B) 40 kg
 - (C) 39 kg
 - (D) 41 kg
10. Calculate the quantity of sewing thread required for the binding of 5000 books in A5 size assuming that each book contains 15 sections and the thread contained in each reel is 500 meter (Assume thread required per section is 24 cm) :
- (A) 34 Reels
 - (B) 35 Reels
 - (C) 36 Reels
 - (D) 30 Reels
11. Estimate the cloth required in metres for 2500 hard case full cloth bound books having trimmed size 210×297 mm with a spine thickness of 15mm. Cloth is available in rolls of 80 cm width and 30 metre length :
- (A) 498 meter
 - (B) 520 meter
 - (C) 512 meter
 - (D) 487 meter
12. How many boards of 22" × 28" size will be required for making of wrapper for 2,000 hard bound books in Demy (1 × 4) size? Allow wastage of 2% :
- (A) 450 Boards
 - (B) 680 Boards
 - (C) 400 Boards
 - (D) 650 Boards

13. In spans formula 'k' denotes :
- (A) Black ink (B) Kind of Forme
(C) Kind of paper stock (D) Kind of process
14. Calculate the quantity of black ink required for 10,000 copies of a 10 pages booklet of A5 size each page with a print area of 200 cm² with text matter, printed using offset process on a coated art paper :
- (A) 0.947 kg (B) 0.750 kg
(C) 0.788 kg (D) 0.812 kg
15. The size of crown size paper is :
- (A) 20" × 30" (B) 15" × 20"
(C) 18" × 23" (D) 17½" × 22½"
16. What is the size of A5? (Trimmed ISO size)
- (A) 210 × 297 mm (B) 176 × 250 mm
(C) 162 × 229 mm (D) 148 × 210 mm
17. Calculate the number of Double Demy sheets required to print 20,000 copies of leaflet of size 8½"×11" in 4 colours on both sides using 120 gsm maplitho paper by assuming 2% wastage allowance :
- (A) 2250 sheets (B) 3500 sheets
(C) 2550 sheets (D) 1550 sheets
18. Find out the weight of one ream of paper of 80 gsm in Double medium size :
- (A) 21.35 kg (B) 23 kg
(C) 32 kg (D) 21.90 kg
19. How much paper of 61 × 88 cm will be required for printing of 10,000 booklets in A4 size assuming that each booklet contains 24 pages without wastage?
- (A) 20 Reams (B) 40 Reams
(C) 60 Reams (D) 30 Reams

20. Which type of printing paper will be chosen for high quality offset printing?
- (A) Art paper
 - (B) Glossy paper
 - (C) Newsprint paper
 - (D) Chromo paper
21. Ink which prevents the colour of the substrate from influencing the ink colour :
- (A) Overprint varnish
 - (B) Fluorescent ink
 - (C) Opaque ink
 - (D) Invisible ink
22. Ability of a paper to resist surface rupturing during printing :
- (A) Fibre strength
 - (B) Moisture resistance
 - (C) Pick resistance
 - (D) Substance weight
23. The amount of quality work done in a given time :
- (A) Productivity
 - (B) Printing
 - (C) Specification
 - (D) Planning
24. What is the basis weight of a ream of cover paper 17"×22" with a ream weight of 56 pounds?
- (A) 7
 - (B) 80
 - (C) 6
 - (D) 78
25. Which drying inks are most suitable for printing on metals?
- (A) Precipitation
 - (B) Polymerisation
 - (C) Oxidation
 - (D) Evaporation
26. Plastic which is used for identity cards and credit cards :
- (A) Co polyester
 - (B) Rigid vinyl
 - (C) Tyvek
 - (D) Polystyrene

27. Ideal pH value of dampening solution used in offset printing :
- (A) 5 (B) 6.5
(C) 5.5 (D) 7
28. A translucent design impressed in paper :
- (A) Emboss (B) Matt
(C) Watermark (D) Logo
29. An electronic pre-press tool that ensures colour consistency among different input and output devices :
- (A) GAMUT (B) CMM
(C) CCD (D) CMS
30. A circle that is $\frac{3}{8}$ inch in diameter and has 72 wedges :
- (A) Star Target (B) Dot gain Scale
(C) Colour Bar (D) Colourimeter
31. To print 1000 copies of a book of size A5 and having 96 pages, what will be the quantity of paper in reams required?
- (A) 2 (B) 4
(C) 1 (D) 6
32. A chemical change that takes place during storage of ink :
- (A) Ink mileage (B) Covering
(C) Livering (D) Chalking
33. Inks which fade and lose its colour after exposing to sunlight for a long time :
- (A) Job black (B) Fugitive inks
(C) Fluorescent inks (D) Transparent inks
34. What is the equivalent weight of a ream $23'' \times 29''$ of book paper, 80 pounds?
- (A) 56 (B) 2.5
(C) 6.8 (D) 72

35. Securing raw materials from stores is the responsibility of :
- (A) CEO (B) Manager
(C) Plant Supervisor (D) All the above
36. The process of converting a bitmapped Image into a Vector Image is called :
- (A) Trapping (B) Super Imposing
(C) Autotracing (D) Perfecting
37. The equipment used to apply textures and patterns of Images :
- (A) Screen (B) Layer
(C) Filter (D) Masking Sheet
38. The technique of changing a black and white continuous tone image into a multi colour reproduction :
- (A) Due tone (B) Grey Scaling
(C) Tone line process (D) Posterization
39. The visible light corresponds to a wavelength range of :
- (A) 380 - 680 Nm (B) 440 - 698 Nm
(C) 520 - 640 Nm (D) 400 - 700 Nm
40. Screen Angles for yellow colour separation :
- (A) 75° (B) 90°
(C) 105° (D) 45°
41. Which of the following best describes the purpose of Standard Generalized Markup Language (SGML)?
- (A) SGML provides a set of predefined tags mainly for creating web pages similar to HTML
- (B) SGML is a comprehensive standard containing codes to identify the logical structure and elements of a wide variety of documents, including books and journals.
- (C) SGML is a programming language designed to control document appearance and layout in publishing systems.
- (D) SGML is a data compression language used to minimize the size of text-based files for storage and transmission

42. Which part of a printed sheet is hidden when the book is bound?
- (A) Head margin
 - (B) Tail margin
 - (C) Gutter margin
 - (D) Fore-edge margin
43. In the CIELAB color space, which of the following statements correctly describes the b^* (b-star) axis?
- (A) The b^* axis represents the color range from green (–128) to red (+127)
 - (B) The b^* axis represents the color range from blue (–128) to yellow (+127)
 - (C) The b^* axis represents the color range from cyan (–128) to magenta (+127)
 - (D) The b^* axis represents the brightness level, where lower values are darker and higher values are lighter
44. A possible standard reproduction print specification for a magazine to be printed by heat-set web offset is a screen ruling of :
- (A) 34 lines per cm
 - (B) 40 lines per cm
 - (C) 47 lines per cm
 - (D) 54 lines per cm
45. In typography, 1 em is still the standard typographic unit measuring approximately how many millimetres?
- (A) 2.54 mm
 - (B) 3.175 mm
 - (C) 4.217 mm
 - (D) 5.0 mm
46. A set of characters for printing, intended to be used in combination and identification by its design and availability in a range of sizes, is called a :
- (A) Typeface
 - (B) Font
 - (C) Script
 - (D) Family
47. Letters are placed on a notional white space and the left or right edge of this space is called the :
- (A) Margin
 - (B) Boundary
 - (C) Side bearing
 - (D) Baseline

48. Which organization commercialized and standardized the Munsell color system for practical use in color measurement?
- (A) Pantone Inc.
 - (B) Kodak
 - (C) Macbeth Corporation
 - (D) Adobe Systems
49. An intermediate proof in printing, used to check color, layout and registration before the final print run, is also called :
- (A) Design Proof
 - (B) Scatter Proof
 - (C) Contract Proof
 - (D) Galley Proof
50. The Scitex CT format, used in the printing industry, is primarily a :
- (A) Vector graphic format for logos
 - (B) Web image format for online publishing
 - (C) 3D modeling file format
 - (D) Prepress digital file format for computer-to-plate for computer-to-film workflows
51. A goniometer is an instrument used for :
- (A) Measuring temperature
 - (B) Measuring or setting angles
 - (C) Measuring pressure
 - (D) Measuring length
52. Luminous flux emitted within one steradian by a point source having a spatially uniform luminous intensity of 1 candela is called :
- (A) 1 Lux
 - (B) 1 Candela
 - (C) 1 Lumen
 - (D) 1 Watt
53. In colorimetry, matricing refers to :
- (A) Measuring the brightness of a light source
 - (B) Converting device-dependent RGB values into device-independent color values using a matrix transformation
 - (C) Mixing pigments physically to achieve a desired color
 - (D) Adjusting contrast in an image

54. When producing periodical publications such as magazines, journals and other structured-format work, it is common practice for the publisher to supply the printer with a :
- (A) Flat plan
 - (B) Galley Proof
 - (C) Dummy Copy
 - (D) Color Separation Sheet
55. The number of grey levels in halftone printing can be calculated using which formula?
- (A) Grey levels = Screen frequency $\times$ Output resolution
 - (B) Grey levels = (Output resolution $\div$ Screen frequency)²+1
 - (C) Grey levels = Output resolution + Screen frequency
 - (D) Grey levels = (Screen frequency $\div$ Output solution)²
56. A one-colour reproduction printed on a coloured sheet is known as _____. Any colour of ink or sheet combination could be used, but the sheet must carry only one layer of Ink.
- (A) Multi-colour printing
 - (B) Process colour printing
 - (C) Fake colour printing
 - (D) Spot colour printing
57. In printing terminology, the process of printing one image over another-commonly involving dark text or graphics printed over a lighter halftone or screen tint background is referred to as :
- (A) Trapping
 - (B) Knockout
 - (C) Surprint
 - (D) Overexposure
58. In prepress operations, _____ are low-cost progress proofs produced directly from plate-ready, imposed films, primarily used to verify pagination and imposition accuracy before platemaking.
- (A) Scatter proofs
 - (B) Ozalids
 - (C) Chromalins
 - (D) Bluelines

59. In modern prepress workflows, *hybrid screening* refers to :
- (A) A screening technique that uses a uniform halftone dot structure to simulate continuous tones across all tonal ranges.
 - (B) The combination of AM and FM screening methods, utilizing AM dots in midtones and FM dots in highlights and shadows for smoother gradients and reduced moiré.
 - (C) A process of converting bitmap images into continuous-tone equivalents to improve press registration accuracy.
 - (D) The substitution of process color dots with spot colors to enhance color gamut and print stability.
60. When the CIE color triangle is transformed so that chromaticity coordinates (x and y) are adjusted to compensate for Mac Adam ellipses, thereby achieving approximate visual uniformity, the resulting color space is known as :
- (A) CIELAB color space - based on opponent color theory using L^* , a^* and b^* coordinates
 - (B) CIEXYZ color space - a linear model defining tristimulus values for visible colors
 - (C) Munsell color system - a perceptual color model organized by hue, value and chroma
 - (D) CIELUV color space - derived from a uniform transformation of the CIE chromaticity diagram
61. Set-off in offset printing process can be prevented by :
- (A) Addition of vehicle in ink
 - (B) Inter-leafing of printed sheets
 - (C) Addition of solvent in ink
 - (D) Addition of drier in ink
62. The coating material used in offset presensitised plates :
- (A) Silver halide
 - (B) Diazo compounds
 - (C) Albumen
 - (D) Poly vinyl alcohol

63. In offset printing, shifting the plate position to straighten an image in the plate cylinder is known as :
- (A) Cocking (B) Registering
(C) Punching (D) Aligning
64. What is perfecting press?
- (A) Press which can print good quality
(B) Press which can simultaneously print on both sides of paper
(C) Press which can print good quality on paper with maximum speed
(D) Press which can print only on single side of the paper
65. The purpose of double sheet detector in sheet fed offset printing machine :
- (A) For smooth flow of paper
(B) To ensure correct printing pressure
(C) To avoid wrinkling of paper
(D) To trip the feeding unit and make the impression off
66. The device used to measure the height of the plate or blanket in relation to the cylinder bears in offset printing machine :
- (A) Bearer gauge
(B) Plate gauge
(C) Packing gauge
(D) Thickness gauge
67. The roller in offset inking system that removes the ink skin and unwanted dirt materials away from the ink train :
- (A) Form roller
(B) Rider roller
(C) Oscillating roller
(D) Distributor roller
68. The height difference between the bearer and the cylinder surface in offset printing unit is known as :
- (A) Cylinder gap
(B) Impression pressure
(C) Nip
(D) Undercut

- 69.** In an offset inking system, contact between a fixed roller and the other is established with :
- (A) Lockout (B) Eccentric
(C) Set screws (D) Lever
- 70.** The absorbent material used to cover dampening rollers of a conventional dampening system in sheet fed offset printing machine :
- (A) Woolen cloth (B) Cotton cloth
(C) Molleton cloth (D) Linen cloth
- 71.** The name of the mechanical clamps used to transport the sheets in sheet fed offset printing machine :
- (A) Front lays (B) Suckers
(C) Clamping bars (D) Grippers
- 72.** The additive used in offset dampening solution to reduce the surface tension :
- (A) Gun arabic (B) Poly vinyl alcohol
(C) Iso propyl alcohol (D) Sodium thiosulfate
- 73.** In wet offset, the direction of web grain should be :
- (A) In parallel with infeed direction
(B) In line with infeed direction
(C) Horizontal to infeed direction
(D) Opposite to infeed direction
- 74.** The web tension in web offset machine is maintained by :
- (A) Web aligner
(B) Compensating roller
(C) Dancer roller
(D) Idle roller
- 75.** Web fan-out may be controlled by :
- (A) Metering roller (B) Dancer roller
(C) Box Tilt (D) Bustle wheels

76. The roller which pulls the web into the folder unit of web offset press :
- (A) Nipping rollers
 - (B) Roller on Top of former
 - (C) Forwarding rollers
 - (D) Web guiding rollers
77. The device which is used to measure the speed of the web :
- (A) Speedometer
 - (B) Tachometer
 - (C) Altimeter
 - (D) Anemometer
78. The type of printing presses that employ hot-air dryers to evaporate solvents from printing inks, leaving semi dry ink films :
- (A) Coldset presses
 - (B) Non heatset presses
 - (C) Ultra violet curing presses
 - (D) Heatset presses
79. The purpose of Re-moistening system in web offset presses :
- (A) To make paper wet
 - (B) To get smooth printing on paper
 - (C) To make paper dry
 - (D) To prevent dimensional change of paper
80. The small flexographic unit with a rubber letter press plate, an impression cylinder and a simple inking system, which is used to print a small matter such as names and addresses for varying press runs :
- (A) Digital printers
 - (B) Imprinters
 - (C) Inkjet printers
 - (D) Laser printers
81. The relief press where printing is carried out using a rubber or photopolymer plate utilising an anilox roller based inking system :
- (A) Dry offset process
 - (B) Flexography process
 - (C) Letterset process
 - (D) Letterpress process
82. Flexographic printing inks dry by :
- (A) Oxidation process
 - (B) Penetration process
 - (C) Absorption process
 - (D) Evaporation of solvents

83. During gravure cylinder preparation, the conventional gravure system uses the resist medium called :
- (A) Carbon tissue (B) Sleeve
(C) Chromium (D) Nickel
84. The chemical used for etching image areas in conventional gravure image cylinder preparation method :
- (A) Nitric acid (B) Ferric chloride solution
(C) Phosphoric acid (D) Zinc chloride solution
85. The number of openings per linear inch in screen printing fabric :
- (A) Screen ruling (B) Screen frequency
(C) Mesh Count (D) Mesh Opening
86. ISO stands for :
- (A) International Organization for Standardization
(B) Indian Organization for Standardization
(C) Indian Standard Organization
(D) International Standard Organization
87. Match the following :
- | | |
|---------------------------|---|
| (a) Media Wedge | (i) To detect issues when transferring dot from plate to substrate |
| (b) Plate control Targets | (ii) Use in proofing and is widely recognised as a proof reference standard |
| (c) Doubling/Slur patches | (iii) Quality control of digital printing systems |
| (d) Digital print scale | (iv) Diagnosing, calibrating and monitoring imaging steps in the graphic reproduction process |
- (A) (a)-(i), (b)-(iii), (c)-(ii), (d)-(iv)
(B) (a)-(iv), (b)-(iii), (c)-(i), (d)-(ii)
(C) (a)-(ii), (b)-(iv), (c)-(i), (d)-(iii)
(D) (a)-(i), (b)-(ii), (c)-(iv), (d)-(iii)

88. Printing press function under the _____ act.
- (A) Factories Act
 - (B) The Industries Act
 - (C) Micro, Small and Medium enterprises Development Act
 - (D) None of the above
89. Print control strips or colour bars are commercially available from :
- (i) FOGRA
 - (ii) BRUNNER
 - (iii) PRINECT
 - (iv) KODAK
- (A) (i)
 - (B) (i) and (ii)
 - (C) (i) and (iv)
 - (D) All of the above (i, ii, iii and iv)
90. By using the elements in the _____, we can measure exposure, pixel resolution, dot size, etc.
- (A) Plate control target
 - (B) Registration mark
 - (C) Solid Patches
 - (D) Colourimeter
91. Foil stamping is a _____ process that transfers a thin layer of metallic tone or colour to a substrate using heat and pressure.
- (A) Intaglio
 - (B) Screen printing
 - (C) Letterpress
 - (D) Planography
92. An image printed in a dull varnish over a gloss sheet is visible due to difference in :
- (A) Absorption
 - (B) Oxidation
 - (C) Reflection
 - (D) All the above
93. Thermography is a process of producing raised printing through the application of :
- (A) Powder and pressure
 - (B) Powder and heat
 - (C) Pressure and heat
 - (D) None of these
94. The binding method in which book and cover are separately made and the book is inserted in the cover is known as :
- (A) Case binding
 - (B) Manifold binding
 - (C) Miscellaneous binding
 - (D) None of these

- 95.** After gilding, the solid gilt edges are cut in to different patterns like flowers, leaves etc. using small hot tools are called :
- (A) Foil stamping (B) Sprinkling
(C) Gauffering (D) Marbling
- 96.** The _____ forms the connection between the book cover and the book body.
- (A) End paper (B) Board
(C) Packaging (D) None of the above
- 97.** All operations after sewing up to covering of a book is known as :
- (A) Forwarding (B) Ware house operations
(C) Covering (D) None of the above
- 98.** Name the folding equipment that use a metal blade to force a sheet through a set of folding rollers to create a fold :
- (A) Knife folder (B) Buckle folder
(C) Accordion folder (D) French folder
- 99.** Name the binding which allow easy opening of the binding for addition or removal of pages :
- (A) Spiral binding
(B) Plastic comb binding
(C) Perfect binding
(D) Pamphlet binding
- 100.** Find the correct statements about collating :
- (i) Collating is the process of examining the gathered sections and rectifying any omissions
(ii) Collating marks are marks made at the back edge of the folded sections during printing
(iii) If the collating marks are uneven step, it means the gathering of sections are not correct
- (A) (i), (ii), (iii) are correct (B) (i) and (ii) Only
(C) (i) Only (D) (iii) Only
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SPACE FOR ROUGH WORK

SPACE FOR ROUGH WORK