

# FINAL ANSWER KEY

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Question1:-Who made the statement "The Preamble of the Constitution is the horoscope of Indian Republic ?

A:-Jawahar Lal Nehru

B:-K.M. Munshi

C:-Mahathma Gandhi

D:-Dr. Rajendra Prasad

Correct Answer:- Option-B

Question2:-In which year the Government of Kerala launched Kudumbasree ?

A:-1998

B:-1996

C:-1999

D:-2000

Correct Answer:- Option-A

Question3:-'Atma Vidhya Sangham' was founded by

A:-Sree Narayana Guru

B:-Ayya Vaikundar

C:-Ayyankali

D:-Vagbhadananda

Correct Answer:- Option-D

Question4:-How many people signed the Ezhava Memorial ?

A:-13216

B:-13238

C:-13176

D:-13111

Correct Answer:- Option-C

Question5:-Jathikummi was written by

A:-Pandit Karuppan

B:-Chattampi Swamikal

C:-Kumaranasan

D:-Mannathu Padmanabhan

Correct Answer:- Option-A

Question6:-Against which team, Sachin Tendulkar played his last test match ?

A:-Newzeland

B:-Australia

C:-West Indies

D:-Pakistan

Correct Answer:- Option-C

Question7:-Who was called 'Simhala Simham' ?

A:-Velukutty Arayan

B:-C. Kesavan

C:-K.P. Vellon

D:-K. Kelappan

Correct Answer:- Option-B

Question8:-P.T. Sivakumar Sharma is associated with

A:-Santoor

B:-Sarod

C:-Sitar

D:-Shehanayi

Correct Answer:- Option-A

Question9:-Who raised the slogan "If we work, We should be got paid" ?

A:-T.K. Madhavan

B:-Vaikunda Swamikal  
C:-Dr. Ayyathan Gopalan  
D:-Dr. Palpu

Correct Answer:- Option-B

Question10:-Gandhiji visited Sree. Narayana Guru in the year

A:-1928  
B:-1927  
C:-1925  
D:-1929

Correct Answer:- Option-C

Question11:-The quality of fluidity of the printing machine rollers and quick solidification of ink is termed as

A:-flow  
B:-drying  
C:-thixotrophy  
D:-set-off

Correct Answer:- Option-C

Question12:-Which of the following additive will improve the rub resistance of ink ?

A:-resin  
B:-wax  
C:-drier  
D:-extenders

Correct Answer:- Option-B

Question13:-The colour appears to run, the fountain solution and dampening rollers become tinted - Bleeding is caused due to

A:-excessive driers  
B:-insufficient water at the plate  
C:-the pigment is hydrophilic  
D:-insufficient water at the plate

Correct Answer:- Option-C

Question14:-Yellow is often printed above the magenta and cyan but if opaque yellow is used the order of yellow printing is

A:-first colour  
B:-second colour  
C:-third colour  
D:-fourth colour

Correct Answer:- Option-A

Question15:-The release of individual small fibers, particles from paper surfaces is termed as

A:-Greasing  
B:-Fluffing  
C:-Stripping  
D:-Tinting

Correct Answer:- Option-B

Question16:-The machine that prints both sides of the sheet in one pass through the press is

A:-Common impression cylinder  
B:-Inline press  
C:-Narrow web press  
D:-Blanket to blanket press

Correct Answer:- Option-D

Question17:-This device in the web offset machine is used to change the direction of the web.

A:-roller  
B:-festoon  
C:-kicker  
D:-turner bar

Correct Answer:- Option-D

Question18:-The inks that are formulated to dry primarily by evaporation of solvent at high temperature

A:-Quick set ink  
B:-Heat set ink  
C:-UV ink  
D:-All the above

Correct Answer:- Option-B

Question19:-17 `1/2`" × 23 `1/2`" sized paper is termed as

- A:-Crown
- B:-Royal
- C:-Demmy
- D:-Foolscap

Correct Answer:- Option-C

Question20:-A condition of ink, when left in a container, thicken and form a light gel structure on the top layer

- A:-thixotropy
- B:-rheology
- C:-newtonian
- D:-tinting

Correct Answer:- Option-A

Question21:-A set of colour printed proofs which comprises one print of each colour, and a print of the combination of subsequent colours as they are printed in sequence

- A:-digital proof
- B:-blue proof
- C:-progressive proof
- D:-soft proof

Correct Answer:- Option-C

Question22:-An instrument which measures the length and tack of an ink

- A:-viscometer
- B:-inkometer
- C:-densitometer
- D:-durometer

Correct Answer:- Option-B

Question23:-The type of blanket used for printing on high speed machine and substrates like board and coated stock

- A:-medium blanket
- B:-hard blanket
- C:-soft blanket
- D:-all the above

Correct Answer:- Option-B

Question24:-Which of the following comes under functional printing ?

- A:-Hologram
- B:-News paper
- C:-QR coding
- D:-Flex banner

Correct Answer:- Option-C

Question25:-Which of the following comes under security printing ?

- A:-hologram
- B:-RFID tags
- C:-dutton printing
- D:-metal printing

Correct Answer:- Option-A

Question26:-Printing one side of the sheet, then turning the sheet over, retaining the same front and side-lay edges of the sheet and the same printing plate can be done by

- A:-Work and tumble
- B:-Work and twist
- C:-Work and turn
- D:-Full sheet work

Correct Answer:- Option-C

Question27:-Which of the following is not the cause of image dot gain during plate making process ?

- A:-over exposure
- B:-incomplete plate development
- C:-poor vacuum frame contact
- D:-changing the position of the lamp during exposure

Correct Answer:- Option-B

Question28:-Which of the following is not a quality control aid ?

- A:-star target
- B:-dot gain scale

C:-FOGRA strip

D:-gripper mark

Correct Answer:- Option-D

Question29:-To facilitate the order of each signature into its correct sequence within the book which of the following is used ?

A:-Gathering

B:-Collating

C:-Imposition

D:-Sequencing

Correct Answer:- Option-B

Question30:-A solution applied to offset plate and dried to produce a hydrophilic film on the non-image area to prevent image area from spreading

A:-fountain solution

B:-water

C:-gum arabic

D:-adhesiver

Correct Answer:- Option-C

Question31:-Control of the reel obtained on the web offset machine by a retarding force is given by

A:-brake

B:-dancer roller

C:-festoon

D:-turner bars

Correct Answer:- Option-A

Question32:-CTP thermal plates are exposed by which of the following source ?

A:-Mercury light

B:-Argon Ion

C:-YAG laser

D:-Visible diode

Correct Answer:- Option-C

Question33:-Which of the following type of original cannot be scanned by a drum scanner ?

A:-Transparency

B:-Flexible original

C:-Rigid original

D:-Matt finished photograph

Correct Answer:- Option-C

Question34:-Which of the following cannot be included in PDF file format ?

A:-special keyword for search and index

B:-interactive links

C:-video clips

D:-none of the above

Correct Answer:- Option-D

Question35:-A device or computer program that receives a description of the content of a page and converts to information that can output on paper/film/plates

A:-digital printer

B:-RIP

C:-scanner

D:-any programming language

Correct Answer:- Option-B

Question36:-Which of the following process comes under non-impact printing technology ?

A:-digital press

B:-flexography

C:-screen printing

D:-gravure process

Correct Answer:- Option-A

Question37:-The most appropriate software used as a layout programme is

A:-Photoshop

B:-GIMP

C:-Indesign

D:-Flash

Correct Answer:- Option-C

Question38:-The visible light spectrum ranges from

- A:-1000 – 1400 nm
- B:-100 – 400 nm
- C:-700 – 1000 nm
- D:-400 – 700 nm

Correct Answer:- Option-D

Question39:-An ink specifically formulated to produce a desired hue and not designed to be mixed by superimposing

- A:-process colour
- B:-halftone
- C:-flat colour
- D:-key colour

Correct Answer:- Option-C

Question40:-The lightest area in a reproduction is

- A:-midtone
- B:-highlight
- C:-shadow
- D:-hue

Correct Answer:- Option-B

Question41:-Variable data printing can be achieved by

- A:-letter press
- B:-screen
- C:-gravure
- D:-digital printing

Correct Answer:- Option-D

Question42:-For cutting harder paper stock in a guillotine machine which of the following is the preferred knife angle ?

- A:-16°
- B:-22°
- C:-10°
- D:-30°

Correct Answer:- Option-B

Question43:-When a sheet of paper is passed through two folder arranged at right angle and folding the sheet equally the resulting fold will be described as

- A:-4-page parallel
- B:-4-page right angle
- C:-8-page parallel
- D:-8-page right angle

Correct Answer:- Option-D

Question44:-When the adhesive flow into the structure of the adherent or around the surface irregularities for adhesion it is called

- A:-physical adhesion
- B:-specific adhesion
- C:-bonding
- D:-chemical adhesion

Correct Answer:- Option-A

Question45:-A mask of solid area to protect portion of a previously exposed plate is

- A:-print down mask
- B:-print out mask
- C:-layout mask
- D:-plate covering

Correct Answer:- Option-C

Question46:-To increase the water retaining properties of the non-image area of the lithographic plate. Which of the following solution can be added ?

- A:-Gum arabic
- B:-Developer
- C:-Desensitiser
- D:-ISO propyl alcohol

Correct Answer:- Option-C

Question47:-Sheets having solid and of printed labels from front to back are vulnerable to

- A:-trapping
- B:-ink blocking

C:-wattling

D:-permanent curl

Correct Answer:- Option-C

Question48:-If a light ray striking a substrate are reflected primarily as parallel rays-mirror like action is known as

A:-specular reflection

B:-transmission

C:-reflection

D:-diffraction

Correct Answer:- Option-A

Question49:-The perpendicular distance between two surfaces of a paper is

A:-GSM

B:-Caliper

C:-Basis weight

D:-Basis grammage

Correct Answer:- Option-B

Question50:-The surface tension of water can be reduced by

A:-adding fountain solution

B:-increasing the temperature

C:-adding additives

D:-increasing the water pressure

Correct Answer:- Option-A

Question51:-When pigment has the property of absorbing radiant energy of a given wavelength and then emitting this energy at a different wavelength is

A:-Reflection

B:-Gloss

C:-Metamerism

D:-Fluorescence

Correct Answer:- Option-D

Question52:-The subtractive transparent primary colour that transmit red and green but absorb blue light is

A:-Cyan

B:-Magenta

C:-Yellow

D:-Black

Correct Answer:- Option-C

Question53:-A computer driven algorithm that disperses halftone dot information in semi-random form

A:-analog screening

B:-stochastic screening

C:-elliptical screen

D:-square dot screen

Correct Answer:- Option-B

Question54:-To overcome the printing problem speckle (improper transfer of ink on rough paper) Gravure presses is employed with

A:-electrostatically assisted ink

B:-static electricity eliminator

C:-paper calendering

D:-inline paper calender

Correct Answer:- Option-A

Question55:-A cylinder making technique in gravure press employed for printing of short run jobs

A:-Electronic engraving

B:-Laser engraving

C:-Computer to cylinder

D:-Ballard process

Correct Answer:- Option-D

Question56:-The small groove present between the cylinder body and bearer in the offset machine is termed as

A:-Cylinder gap

B:-Gutter

C:-Cylinder body

D:-Gear

Correct Answer:- Option-B

Question57:-Which of the following paper is the strongest ?

- A:-newsprint
- B:-corrugated medium
- C:-bleached paper
- D:-kraft paper

Correct Answer:- Option-D

Question58:-Material having random molecular arrangements is termed as

- A:-thermoset
- B:-amorphous
- C:-crystalline
- D:-polymers

Correct Answer:- Option-B

Question59:-Software that stores lines and shapes rather than individual pixels is known as

- A:-raster graphics software
- B:-bitmap graphic software
- C:-vector graphic software
- D:-ripped image

Correct Answer:- Option-C

Question60:-Many bitmapped images in a sequence is known as

- A:-JPEG animation
- B:-tweening
- C:-TIF animation
- D:-GIF animation

Correct Answer:- Option-D

Question61:-Given a 2"×2" photograph and a 4"×4" layout space, what scale percentage is needed to fit the photograph ?

- A:-200
- B:-150
- C:-100
- D:-50

Correct Answer:- Option-A

Question62:-EOQ is

- A:-Economical size of order
- B:-Average stock to be maintained
- C:-Economical size of production quantity
- D:-Maximum stock to be fixed

Correct Answer:- Option-A

Question63:-The watermark in a bond paper is created by which of the following part in paper making machine ?

- A:-head box
- B:-wire
- C:-pressing unit
- D:-dandy roller

Correct Answer:- Option-D

Question64:-If individual colour stations are placed horizontally one after other, the press is called

- A:-common impression cylinder
- B:-stack press
- C:-in-line press
- D:-web press

Correct Answer:- Option-C

Question65:-Adhesive used in lamination process is

- A:-animal adhesive
- B:-vegetable adhesive
- C:-synthetic adhesive
- D:-natural adhesive

Correct Answer:- Option-C

Question66:-Ink mainly used in flexographic process

- A:-liquid ink
- B:-paste ink
- C:-solvent based ink
- D:-heat set ink

Correct Answer:- Option-A

Question67:-The colour difference equation is expressed as

A:- $\Delta E = (1 - y) (1 - m) (1 - C)$

B:- $\Delta E = [(\Delta L)^2 + (\Delta a)^2 + (\Delta b)^2]^{1/2}$

C:- $\Delta E = -1.7 \log [1 - a(1 - 10^{-0.6D(3)})]^{1/2}$

D:- $\Delta E = C^*_{\text{sample}} - C^*_{\text{standard}}$

Correct Answer:- Option-B

Question68:-The reference colour model of a colour management system is based on

A:-Pantone

B:-CIELAB

C:-HSB

D:-CMYK

Correct Answer:- Option-B

Question69:-A gear which has its teeth cut at an angle to the axis of the shaft

A:-Pawl and Ratchet

B:-Helical

C:-Spur

D:-Bevel

Correct Answer:- Option-B

Question70:-Carousel screen printing machines are based upon

A:-Cylinder bed principle

B:-Stationery bed

C:-Oblique motion

D:-Rotational principle

Correct Answer:- Option-D

Question71:-If  $A = \begin{bmatrix} 1 & 3 & 4 \\ 2 & 6 & x \\ 1 & 0 & 1 \end{bmatrix}$  is a singular matrix, then x is equal to

A:-2

B:-8

C:-2

D:-4

Correct Answer:- Option-B

Question72:-If A, B, C are non singular matrices of the same order then  $(ABC)^{-1} =$

A:- $A^{-1}B^{-1}C^{-1}$

B:- $B^{-1}A^{-1}C^{-1}$

C:- $C^{-1}B^{-1}A^{-1}$

D:- $C^{-1}A^{-1}B^{-1}$

Correct Answer:- Option-C

Question73:-Solutions of the system of equations  $3x + y + 2z = 3$ ,  $2x - 3y - z = -3$ ,  $x + 2y + z = 4$  are

A:- $x = 1$ ,  $y = 2$ ,  $z = -1$

B:- $x = 2$ ,  $y = 3$ ,  $z = 1$

C:- $x = 1$ ,  $y = 2$ ,  $z = 3$

D:- $x = 1$ ,  $y = 4$ ,  $z = 0$

Correct Answer:- Option-A

Question74:-The term independent of x in the expansion of  $(x^2 + 1/x)^6$  is

A:-0

B:-12

C:-10

D:-15

Correct Answer:- Option-D

Question75:-If  $A + B = 45^\circ$ , then  $(1 + \tan A) (1 + \tan B)$  is equal to

A:-2

B:-1

C:-4

D:-5

Correct Answer:- Option-A

Question76:-Equation to the line passing through the point  $(-3, 2)$  and perpendicular to the line  $4x + 2y + 5 = 0$  is

A:- $x - 3y + 2 = 0$

B:  $-x - 2y + 7 = 0$

C:  $-x + y = 0$

D:  $-x - y = 0$

Correct Answer:- Option-B

Question77:-The minimum value of the function  $f(x) = 3x^4 - 2x^3 - 6x^2 + 6x + 1$  in the interval  $(0, 2)$  is

A: -1

B: -4

C: -1

D: -2

Correct Answer:- Option-D

Question78:-If  $x^2 + 2xy + y^2 = 0$ , then  $dy/dx$  is equal to

A: -2

B:  $-x + 2y$

C: -1

D:  $-2x + 2y$

Correct Answer:- Option-C

Question79:- $\int x(\log x) dx$  is equal to

A:  $-\log x \left( \frac{x^2}{2} + \frac{x^2}{4} + C \right)$ , C is constant

B:  $-\log x \left( \frac{x^2}{2} - \frac{x^2}{4} + C \right)$ , C is constant

C:  $-\log x \left( \frac{x^2}{2} - \frac{x^3}{4} + C \right)$ , C is constant

D:  $-\log x \left( \frac{x^3}{2} - \frac{x^2}{4} + C \right)$ , C is constant

Correct Answer:- Option-B

Question80:-Solution of the differential equation  $\sec^2(x) \tan y dx + \sec^2(y) \tan x dy = 0$  is of the form

A:  $-\tan x \tan y = c$

B:  $-\sec x \tan y = c$

C:  $-\cot x \cot y = c$

D:  $-\sec y \tan x = c$

Correct Answer:- Option-A

Question81:-The type of cement suitable for massive constructions like dams is

A: acid resistant cement

B: low heat cement

C: sulphur resistant cement

D: ordinary Portland cement

Correct Answer:- Option-B

Question82:-The type of rubble masonry in which prismatic shaped stones are used is

A: Random rubble masonry

B: Polygonal masonry

C: Ashlar masonry

D: Dry rubble masonry

Correct Answer:- Option-C

Question83:-The instrument used for measuring distance is

A: electronic theodolite

B: stereoscope

C: wye level

D: distomat

Correct Answer:- Option-D

Question84:-Which among the following is the best suited foundation for a building if the foundation covers more than 50 % of the area of the building and if the soil is weak

A: Spread foundation

B: Raft foundation

C: Combined footing

D: Column footing

Correct Answer:- Option-B

Question85:-Optical square is the instrument used for

A: setting  $90^\circ$

B: ranging of line

C: leveling

D: finding magnetic north

Correct Answer:- Option-A

Question86:-The valve(s) closed during compression stroke of an IC engine is/are

- A:-Inlet valve
- B:-Exhaust valve
- C:-Both inlet and exhaust valve
- D:-None of the above

Correct Answer:- Option-C

Question87:-The cooling tower in a steam thermal power plant is a device for

- A:-Condensing steam into water
- B:-Cooling exhaust gas coming out of a boiler
- C:-Reducing temperature of superheated steam
- D:-Reducing temperature of cooling water used in a condenser

Correct Answer:- Option-D

Question88:-The role of a moderator in a nuclear power plant is

- A:-To absorb neutrons fully
- B:-To control speed of neutrons
- C:-Both 1 and 2 above depending on the need
- D:-None of the above

Correct Answer:- Option-B

Question89:-The role of a surge tank in a hydroelectric power plant is

- A:-To absorb sudden rises of pressure by storing water
- B:-To store extra water during a brief drop of pressure
- C:-Both 1 and 2 above
- D:-To reduce the speed of the turbine when the level of dam is high

Correct Answer:- Option-C

Question90:-The following system in automobile diverts the power at right angles towards the driving wheels

- A:-Torque tube
- B:-Transfer case
- C:-Final drive
- D:-Differential

Correct Answer:- Option-C

Question91:-In a series RL circuit excited by a voltage  $v = V_m \sin \omega t$

- A:-current lags the applied voltage
- B:-current leads the applied voltage
- C:-current is in phase with the applied voltage
- D:-voltage across L and R are equal

Correct Answer:- Option-A

Question92:-In a parallel RC electric circuit \_\_\_\_\_ is same for each element.

- A:-current
- B:-voltage
- C:-power
- D:-none of the above

Correct Answer:- Option-B

Question93:-Across the surface of a charged conductor, the electric

- A:-field is continuous
- B:-potential is continuous
- C:-field is discontinuous
- D:-none of the above

Correct Answer:- Option-C

Question94:-The unit of electric energy is

- A:-ampere
- B:-voltage
- C:-watt
- D:-watthour

Correct Answer:- Option-D

Question95:-An alternating current source having voltage  $E = 220 \sin (\omega t + \pi/2)$  in an ac circuit . If the current drawn from the circuit is  $I = 20 \sin (\omega t - \pi/2)$ , the impedance of the circuit is

- A:-11Ω
- B:-15.6Ω
- C:-30.8Ω

D:-none of the above

Correct Answer:- Option-A

Question96:-Which one of the following is a direct band gap semiconductor used to fabricate light emitting diodes ?

A:-Germanium

B:-Silicon

C:-Gallium Arsenide

D:-Gold

Correct Answer:- Option-C

Question97:-In a bridge rectifier circuit without filter, the maximum voltage across the secondary of the transformer is 18 volt. What is the maximum reverse voltage that appears across a diode in the non-conducting state during the rectification process ?

A:-0 volt

B:-18 volt

C:-9 volt

D:-36 volt

Correct Answer:- Option-B

Question98:-Which of the following is a universal gate ?

A:-NAND gate

B:-OR gate

C:-NOT gate

D:-XOR gate

Correct Answer:- Option-A

Question99:-What is the multiple access technique used in IS-95 digital cellular phone standard ?

A:-SDMA

B:-CDMA

C:-TDMA

D:-FDMA

Correct Answer:- Option-B

Question100:-What is the size of RAM in 8051 micro controller ?

A:-32 bytes

B:-64 bytes

C:-8 bytes

D:-128 bytes

Correct Answer:- Option-D