

PROVISIONAL ANSWER KEY

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Question1:-Which State Government's initiative of planting 10 lakh saplings in a span of 8 hours has entered the Guinness Book of World Records?

- A:-Uttar Pradesh
- B:-Rajasthan
- C:-Madhya Pradesh
- D:-Jharkand

Correct Answer:- Option-A

Question2:-International Day for the Elimination of Violence against Women was observed on _____

- A:-28 November
- B:-25 November
- C:-25 December
- D:-28 December

Correct Answer:- Option-B

Question3:-Who wrote the book 'What Happened to Netaji'?

- A:-Anuj Khar
- B:-Aravind Adiga
- C:-Soni Sohal
- D:-Gangaram

Correct Answer:- Option-A

Question4:-Which movie bagged the Golden Crow Pheasant Award of 2015?

- A:-Cinemawallah
- B:-The Tribe
- C:-Ottal
- D:-Refujiado

Correct Answer:- Option-C

Question5:-'Do Not Evil' is the tagline of _____

- A:-Opera
- B:-Bing
- C:-Yahoo
- D:-Google

Correct Answer:- Option-D

Question6:-Who introduced Oral Polio Vaccine?

- A:-Albert Sabin
- B:-JE Salk
- C:-Joseph Lister
- D:-Alexander Fleming

Correct Answer:- Option-A

Question7:-Which amendment is known as 'Mini Constitution'?

- A:-93rd Amendment
- B:-42nd Amendment
- C:-43rd Amendment
- D:-44th Amendment

Correct Answer:- Option-B

Question8:-Kerala network for organ sharing by Health Department is known as _____

- A:-Amrithavahini
- B:-Karunayadayini
- C:-Dharmavahini
- D:-Mrithasanjeevani

Correct Answer:- Option-D

Question9:-In which year Indian Parliament Food Security Act?

- A:-2011
- B:-2012
- C:-2013
- D:-2014

Correct Answer:- Option-C

Question10:-The head quarters of Right to Information Act is _____

- A:-Vidya Sadan
- B:-Vikas Bhavan
- C:-August Kranti Bhavan
- D:-Mukti Sadan

Correct Answer:- Option-C

Question11:-The primary function of a surge tank is to

- A:-Store excess water from tail race
- B:-Increase power output from the turbine
- C:-Act as container for surge arrester
- D:-Prevent pressure wave due to water hammer in penstock

Correct Answer:- Option-D

Question12:-A universal joint allow the propeller shaft to

- A:-bend sideways
- B:-change length
- C:-transfer torque at an angle
- D:-change inclination

Correct Answer:- Option-C

Question13:-The function of an economizer in a steam power plant is to

- A:-increase the temperature of supply air
- B:-increase the temperature of feed water
- C:-condense the exhaust steam from the turbine
- D:-preheat the fuel

Correct Answer:- Option-B

Question14:-The compression ignition engines are governed by

- A:-Hit and miss governing
- B:-Quantity governing
- C:-Quality governing
- D:-Combination of (2) and (3)

Correct Answer:- Option-C

Question15:-The speed ratio between crankshaft and camshaft is

- A:-2 : 1
- B:-4 : 1
- C:-1 : 2
- D:-1 : 4

Correct Answer:- Option-A

Question16:-The inverse of $\begin{bmatrix} 2 & 5 \\ 1 & 3 \end{bmatrix}$ is

$$A:-\begin{bmatrix} 3 & -1 \\ -5 & 2 \end{bmatrix}$$

$$B:-\begin{bmatrix} 3 & -5 \\ -1 & 2 \end{bmatrix}$$

$$C:-\begin{bmatrix} -3 & 1 \\ 5 & -2 \end{bmatrix}$$

$$D:-\begin{bmatrix} 3 & 1 \\ 5 & 2 \end{bmatrix}$$

Correct Answer:- Option-B

Question17:-If $A = \begin{bmatrix} 12 & 17 & 23 \\ 3 & 6 & 9 \\ 12 & 24 & 36 \end{bmatrix}$, then $\det A$ is

- A:-74
- B:-74
- C:- $\frac{1}{74}$
- D:-0

Correct Answer:- Option-D

Question18:- $\sum_{r=0}^n nC_r = \dots$

- A:-1
- B:-0
- C:- 2^n
- D:- n^2

Correct Answer:- Option-C

Question19:- $\sin(180 + \theta) = \dots$

- A:- $\sin\theta$
- B:- $\sin\theta$
- C:- $\cos\theta$
- D:- $\cos\theta$

Correct Answer:- Option-B

Question20:-The equation of any line perpendicular to $Ax + By + C = 0$ is

- A:- $Bx - Ay + K = 0$
- B:- $Ax - By + K = 0$
- C:- $Bx + Ay + K = 0$
- D:- $Ax + By + K = 0$

Correct Answer:- Option-A

Question21:- $\lim_{x \rightarrow \frac{\pi}{4}} \frac{\log \tan x}{\left(\frac{\pi}{4} - x\right)} = \dots$

- A:-0
- B:- $\frac{1}{2}$
- C:-2
- D:- $\frac{1}{2}$

Correct Answer:- Option-C

Question22:- Find $\frac{dy}{dx}$ if $y = \sqrt{f(x) + \sqrt{f(x) + \sqrt{f(x) + \dots}}}$

- A:- $\frac{f'(x)}{2y-1}$
- B:- $\frac{2y-1}{f'(x)}$
- C:- $\frac{f'(x)}{2y+1}$
- D:- $\frac{2y+1}{f'(x)}$

Correct Answer:- Option-A

Question23:- $\int_{-\pi}^{\pi} x^3 \cos x dx = \dots$

- A:- 2π
- B:- $\frac{\pi}{2}$
- C:- $\frac{\pi}{2}$
- D:-0

Correct Answer:- Option-D

Question24:- $\int \frac{dx}{\sqrt{a^2 - x^2}} = \dots$

- A:- $\sin^{-1} \left(\frac{x}{a}\right) + C$
- B:- $\cos^{-1} \left(\frac{x}{a}\right) + C$
- C:- $\sin^{-1} \left(\frac{a}{x}\right) + C$
- D:- $\cos^{-1} \left(\frac{a}{x}\right) + C$

Correct Answer:- Option-A

Question25:- Integrating factor for the differential equation $\frac{dy}{dx} + \frac{3y}{x} = \frac{1}{x^2}$ is

- A:- y^3
- B:- e^{y^3}
- C:- x^3
- D:- e^{x^3}

Correct Answer:- Option-C

Question26:- The aggregate is called fine aggregate if it is completely retained on

- A:-0.15 mm sieve
- B:-0.16 mm sieve
- C:-0.17 mm sieve
- D:-0.18 mm sieve

Correct Answer:- Option-A

Question27:- The minimum depth for all foundations below the natural ground level is

- A:-500 mm
- B:-1200 mm
- C:-250 mm
- D:-100 mm

Correct Answer:- Option-A

Question28:- A projected stone in masonry wall provided to joist or truss is known as

- A:-cornice
- B:-corbel
- C:-coping
- D:-cramp

Correct Answer:- Option-B

Question29:- The sag correction for chain line will be when W is the weight of the chain, L is the span and P is the tension or pull

- A:- $W^2 L^2 / 24 P^2$
- B:- $W^2 L / 24 P$
- C:- $W^2 L / 24 P^2$
- D:- $W^2 L^2 / 24 P$

Correct Answer:- Option-C

Question30:- Natural error in levelling is caused due to

- A:-Wind vibration
- B:-Atmospheric refraction
- C:-Temperature variation
- D:-All the above

Correct Answer:- Option-D

Question31:- Find the time taken for a sinusoidal alternating current of maximum value 20A to reach 15A for the first time, after being instantaneously zero, the supply frequency being 40 Hz

- A:-2.35 ms
- B:-3.37 ms
- C:-4.44 ms
- D:-1.23 ms

Correct Answer:- Option-B

Question32:- The voltage across a 20 μF capacitor is given by $V_C = 10.75 - 1.5e^{-1000t} + 0.75e^{-2000t}$.

What is the current through the capacitance.

- A:- $0.03(e^{-1000t} - e^{-2000t})$
- B:- $0.3(e^{-1000t} - e^{-2000t})$
- C:- $3(e^{-1000t} - e^{-2000t})$
- D:- $0.003(e^{-1000t} - e^{-2000t})$

Correct Answer:- Option-A

Question33:- Two coils having equal resistance but different inductances are connected in series. The time constant of the series combination is

- A:-Sum of the time constant of individual coils

- B:-Average of the time constant of individual coils
 C:-Geometrical mean of the time constant of individual coils
 D:-Product of the time constant of individual coils
 Correct Answer:- Option-B
- Question34:-A network contains linear resistor and ideal voltage sources. If value of all the resistors are doubled, then voltage across each resistor is
 A:-Halved
 B:-Doubled
 C:-Not changed
 D:-Increase 4 times
 Correct Answer:- Option-C
- Question35:-The current $i(t)$ through a 10 ohm resistance in series with an inductance is given by $i(t) = 3 + 4 \sin(100t + 45^\circ) + 4 \sin(300t + 60^\circ)$ A. The rms value of current and power dissipated in the circuit are
 A:- $\sqrt{41}$ A, 410 W respectively
 B:- $\sqrt{35}$ A, 380 W respectively
 C:-5 A, 250 W respectively
 D:-11 A, 1210 W respectively
 Correct Answer:- Option-C
- Question36:-In full wave rectification, if the input frequency is 50 Hz, then the output frequency will be
 A:-50 Hz
 B:-75 Hz
 C:-100 Hz
 D:-200 Hz
 Correct Answer:- Option-C
- Question37:-A fully charged 12 V, 100 Ah battery is connected to a 1.2 Ω load. The expected time for which the battery can supply power to load is
 A:-10 hours
 B:-12 hours
 C:-1.2 hours
 D:-144 hours
 Correct Answer:- Option-A
- Question38:-A microcontroller normally has which of the following devices on chip?
 A:-RAM
 B:-ROM
 C:-IO ports
 D:-All of the above
 Correct Answer:- Option-D
- Question39:-GaAs LED's emit radiation in the
 A:-Ultraviolet region
 B:-Blue-green region of visible region
 C:-Orange-red range of visible region
 D:-Infra red region
 Correct Answer:- Option-D
- Question40:-The function of Network and Switching Subsystem (NSS) in GSM is to
 A:-Provide and manage radio transmission path between the mobile stations and the Mobile Switching Centre (MSC)
 B:-Manage the switching functions of the system and allows the Mobile Switching Centre (MSC) to communicate with other networks
 C:-Supports the operation and maintenance of GSM
 D:-Manage the radio interface between the mobile station and all other subsystems of GSM
 Correct Answer:- Option-B
- Question41:-The water manes are created using _____
 A:-Dancing roll
 B:-Dampening roll
 C:-Dandy roll
 D:-Distributed roll
 Correct Answer:- Option-C
- Question42:-The splitting property of an ink film is called _____
 A:-Viscosity
 B:-Thixotropy
 C:-Ink fly
 D:-Tack
 Correct Answer:- Option-D
- Question43:-Blanket hardness is measured using _____
 A:-Shore hardness meter
 B:-Gauge hardness tester
 C:-Feeler gauge tester
 D:-Screw gauge
 Correct Answer:- Option-A
- Question44:-Kaizen is known as
 A:-the continuous improvement process
 B:-production tracking
 C:-plan do check
 D:-quality assurance
 Correct Answer:- Option-A
- Question45:-The term hydrophilic means
 A:-ability to printing ink to dissolved during printing process
 B:-characteristic of printing solutions to dissolve in special chemicals under high temperatures
 C:-having a tendency to mix with, dissolve in, or be wetted by water
 D:-measurement of level of water content in printing inks
 Correct Answer:- Option-C
- Question46:-What is the term given to the trouble-free interaction between the ink and the press, the paper and the press and finally, the ink and paper?
 A:-Smooth running
 B:-High performance job
 C:-Trouble shooting
 D:-Runnability
 Correct Answer:- Option-D
- Question47:-Which of the following is FALSE about tack?
 A:-It is the stickiness of an ink, or the force required to split an ink film between two surfaces
 B:-Tack determines whether the ink will pick the surface of the paper
 C:-Ink tack that is higher than the strength of the paper surface is highly recommended
 D:-Tack affects whether ink will trap properly in multi-color printing
 Correct Answer:- Option-C
- Question48:-IGT printability tester is to test
 A:-Ink fly
 B:-Ink mist
 C:-Hickins
 D:-Pick resistance
 Correct Answer:- Option-D
- Question49:-Copper is good affinity to
 A:-Water
 B:-Ink
 C:-Buffer solution
 D:-Phosphoric acid
 Correct Answer:- Option-B
- Question50:-Resistance to flow
 A:-Trap
 B:-Tack
 C:-Viscosity
 D:-Scum
 Correct Answer:- Option-A
- Question51:-Brightness of paper substrates are measured at _____ in brightness tester.
 A:-90°
 B:-180°
 C:-45°
 D:-75°
 Correct Answer:- Option-A
- Question52:-The primary fibers are _____ pulp.
 A:-Mechanical
 B:-Recycled
 C:-Reuse
 D:-Grained
 Correct Answer:- Option-A
- Question53:-San Serif is called
 A:-with Serif
 B:-Counter

C:-Stem
D:-Without serif
Correct Answer:- Option-A

Question54:-Line spacing is also referred as

A:-Ligatures
B:-Kerning
C:-Leading
D:-House style

Correct Answer:- Option-C

Question55:-Height of the type is

A:-0.791"
B:-0.918"
C:-0.189"
D:-0.819"

Correct Answer:- Option-B

Question56:-Frequency modulate screening is also referred as _____ screening.

A:-Stochastic
B:-Pattern
C:-Hybrid
D:-Autotypical

Correct Answer:- Option-A

Question57:-The difference in highlight and shadow area is called

A:-Grayness
B:-Lightness
C:-Contrast
D:-Hue

Correct Answer:- Option-C

Question58:-Resolution is referred as

A:-dot per inch
B:-pixel per inch
C:-lines per inch
D:-all of the above

Correct Answer:- Option-D

Question59:-The reverting a screen into a continuous - tone file is called as

A:-copy dot
B:-mixed mode
C:-descreening
D:-digitizing

Correct Answer:- Option-C

Question60:-Pixels are called

A:-circle dots
B:-elliptical dots
C:-round dots
D:-digital dots

Correct Answer:- Option-D

Question61:-PDF files are interpreted by _____

A:-PPD
B:-DCS
C:-PS
D:-RIP

Correct Answer:- Option-D

Question62:-CMYK colour ink is termed as

A:-spot colour
B:-process colour
C:-fake colour
D:-pentagon colour

Correct Answer:- Option-B

Question63:-Purity of colour is called

A:-Saturation
B:-Hue
C:-Lightness
D:-Grayness

Correct Answer:- Option-A

Question64:-6 pica is equal to

A:-½ inch
B:-1 inch
C:-1½ inch
D:-2 inch

Correct Answer:- Option-B

Question65:-Which colour space is perceptually uniform?

A:-RGB
B:-CMYK
C:-Yxy
D:-CIE Lab

Correct Answer:- Option-D

Question66:-If the angle of incident and angle of reflection is same then it is called as

A:-Specular reflection
B:-Diffused reflection
C:-Refraction
D:-Transparent

Correct Answer:- Option-A

Question67:-If the tristimulus value $X = 10$ $Y = 12$ $Z = 8$ find the x and y co-ordinates of Y_{xy} colour space

A:-0.3, 0.4
B:-0.4, 0.3
C:-0.5, 0.3
D:-0.3, 0.5

Correct Answer:- Option-A

Question68:-Ideal black body radiator is also referred as _____ radiator

A:-Specular
B:-Planckian
C:-Refraction
D:-All the above

Correct Answer:- Option-B

Question69:-The difference between numerical value of color are indicated as

A:- ΔE
B:- δE
C:- σE
D:- E

Correct Answer:- Option-A

Question70:-Which rendering intent is suitable for photographic image?

A:-Saturation intent
B:-Absolute colorimetric intent
C:-Relative colorimetric
D:-Perceptual intent

Correct Answer:- Option-D

Question71:-The colour exhibit special radiation effect depending on the illumination is called _____

A:-Metamerism
B:-Fluorescence
C:-Opacity
D:-Chromaticity

Correct Answer:- Option-B

Question72:-Identify the incorrect pre-press operation

A:-Typesetting
B:-Proofing
C:-Imposition
D:-Embossing

Correct Answer:- Option-D

Question73:-Identify the wrong statement about PDFs

A:-It is a cross platform standard
B:-PDFs are device independent
C:-PDFs supports security

- D:-PDFs are portable
Correct Answer:- Option-D
- Question74:-Which of the following is not a common pre-press problem?
A:-File defined with incorrect colour
B:-Scan supplied in wrong file format
C:-Missing graphics
D:-Ghosting
Correct Answer:- Option-D
- Question75:-Spot color printing is normally done by
A:-4 colour printing
B:-single colour printing
C:-only by VDP
D:-multi-colour printing
Correct Answer:- Option-D
- Question76:-In what form do imaging source like digital cameras provide images?
A:-Colour PDFs
B:-RGB mode
C:-CMYK mode
D:-Gray scale
Correct Answer:- Option-B
- Question77:-Why there is more number of distributor ink rolls in offset printing process?
A:-Ink milling
B:-Even distribution
C:-Dwell time setting
D:-Ink drying
Correct Answer:- Option-A
- Question78:-Indirect laser engraving process uses _____ on the copper cylinders.
A:-Light sensitive black layer
B:-Emulsion layer
C:-Carbon layer
D:-Electrostatic layer
Correct Answer:- Option-A
- Question79:-Electro formed screen are made from
A:-tin
B:-nickel
C:-antimony
D:-aluminium
Correct Answer:- Option-B
- Question80:-Funning the pile to reduce friction between the sheets are known as
A:-Loading
B:-Trimming
C:-Transporting
D:-Jogging
Correct Answer:- Option-D
- Question81:-In cutting principle the knife work without counteracting tool
A:-knife cut
B:-sheet cut
C:-burst cut
D:-flat cut
Correct Answer:- Option-C
- Question82:-Carousel screen printing machines are based upon
A:-cylinder bed principle
B:-rotational principle
C:-oblique motion
D:-stationery bed
Correct Answer:- Option-B
- Question83:-What problem would be encountered when the gravure cylinder is not perfectly round within a cross section?
A:-static imbalance
B:-dynamic imbalance
C:-non static imbalance
D:-static balance
Correct Answer:- Option-A
- Question84:-Which of these part is used for automatically positioning a new web to the tail end of the web being printed?
A:-Splicer
B:-Turner bar
C:-Web bar
D:-Folding bar
Correct Answer:- Option-A
- Question85:-When the contact angle (θ) $<90^\circ$ is the measure of the wetting of solid by a liquid then it represents
A:-Poor wetting
B:-Very poor wetting
C:-Moderate wetting
D:-Good wetting
Correct Answer:- Option-D
- Question86:-Which of these process are commonly used for destination of water in press?
A:-Reverse osmosis
B:-Distillation
C:-Deionization
D:-Osmosis process
Correct Answer:- Option-A
- Question87:-Which of the following is NOT a non convention dampening?
A:-Brush dampening
B:-Ductor roll
C:-Misting dampening
D:-Dullerand dampening
Correct Answer:- Option-B
- Question88:-Oscillator roller is otherwise termed as
A:-Nip roller
B:-Transfer roller
C:-Vibrator roller
D:-Forme roller
Correct Answer:- Option-C
- Question89:-Assembly process with the transition into a different processing dimension is called as _____
A:-Collating
B:-Gathering
C:-Creasing
D:-Folding
Correct Answer:- Option-B
- Question90:-Spine routing method is used in
A:-Calligo binding
B:-Perfect binding
C:-Thermal binding
D:-Combing binding
Correct Answer:- Option-B
- Question91:-The measure of force required to bend a paper through a specific angle
A:-Tensile strength
B:-Stiffness
C:-Burst strength
D:-Folding endurance
Correct Answer:- Option-B
- Question92:-Checking the sequences of pages before a book is bounded is termed as
A:-Gathering
B:-Collating
C:-Inserting
D:-Stitching
Correct Answer:- Option-B
- Question93:-The use of lead and chrome based pigment is restricted for
A:-Cosmetic packaging
B:-Industrial packaging
C:-Stationery packaging
D:-Food packaging

Correct Answer:- Option-D

Question94:-Serval folds made parallel to each other is termed as

- A:-Fan fold
- B:-Cross fold
- C:-Accordion fold
- D:-Zig-zag fold

Correct Answer:- Option-C

Question95:-Corrugated boxes uses _____ liner board.

- A:-Art sheet
- B:-Kraft
- C:-Maplitho
- D:-All of the above

Correct Answer:- Option-B

Question96:-Which of the following are coming under anti-counterfeiting packaging?

- A:-Hologram
- B:-Electronic tag
- C:-RFID chip
- D:-All the above

Correct Answer:- Option-D

Question97:-The package system that is designed to control the growth of microorganisms

- A:-Active packaging
- B:-Antimicrobial packaging
- C:-Aerosol packaging
- D:-Acrylic packaging

Correct Answer:- Option-B

Question98:-This measures the rigidity of flutes

- A:-Burst strength test
- B:-Flat crush test
- C:-Tear test
- D:-Tensile test

Correct Answer:- Option-B

Question99:-Clam shell is also called as

- A:-Aerosol
- B:-Blister
- C:-Collapsible tube
- D:-Carton

Correct Answer:- Option-B

Question100:-Which of the following are NOT coming in structural design of carton?

- A:-End load
- B:-Top load
- C:-Display outer
- D:-Collapsible

Correct Answer:- Option-B