PROVISIONAL ANSWER KEY

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Question1:-Which of the following is a subspace of $M_n (\mathbb{R})$, the vector space of all n × n real matrices

A:-The set of all non-invertible real matrices

B:-The set of all matrices A with det A = 0

C:-The set of all matrices with trace A = 0

D:-None of the above

Correct Answer:- Option-C

Question2:-Let A be a 5 × 3 matrix and B be a 3 × 7 matrix then the rank of AB can be:

A:-5

B:-3

C:-7

D:-All of the above

Correct Answer:- Option-B

Question3:-The number of linearly independent eigen vectors of the matrix $\begin{bmatrix} 2 & 2 & 0 & 0 \\ 2 & 1 & 0 & 0 \\ 0 & 0 & 3 & 0 \\ 0 & 0 & 1 & 4 \end{bmatrix}$ is

A:-1

B:-2

C:-3

D:-4

Correct Answer:- Option-D

Question4:-Let A be a 5 × 5 real matrix. Which of the following is true?

A:-If A is an orthogonal matrix, then det A = 1

B:-If A is an nilpotent matrix, then det A = 1

C:-If A is an orthogonal matrix, then det A = -1

D:-If A is a skew-symmetric matrix, then det A = 0

Correct Answer:- Option-D

Question5:-Which of the following is the Jordan form of a 3 × 3 matrix?

A:-$\begin{bmatrix} 2 & 1 & 1 \\ 0 & 2 & 1 \\ 0 & 0 & 0 \end{bmatrix}$

B:-$\begin{bmatrix} 2 & 1 & 0 \\ 0 & 2 & 0 \\ 0 & 0 & 0 \end{bmatrix}$

C:-$\begin{bmatrix} 2 & 0 & 0 \\ 0 & 0 & 1 \\ 0 & 0 & 2 \end{bmatrix}$

D:-$\begin{bmatrix} 2 & 0 & 0 \\ 0 & 3 & 1 \\ 0 & 0 & 4 \end{bmatrix}$

Correct Answer:- Option-A

Question6:-Let T : $P_3 (\mathbb{R}) \to M_{2 \times 2}(\mathbb{R})$ be defined by $T(f(x)) = \begin{bmatrix} f(1) & f(-1) \\ f(2) & f(-2) \end{bmatrix}$. Then which of the following statements is true?

A:-T is one-one

B:-T is both one-one and onto

C:-T is onto

D:-T is neither one-one nor onto

Correct Answer:- Option-B

Question7:-Let $V = M_2(\mathbb{R})$, A^T denotes the transpose of the matrix A and I be the identity matrix in V. Define an inner product on V as $<A,B>=$trace $\left(B^T A\right)$. The the dimension of the orthogonal compliment of the set {I} is:

A:-1

B:-2

C:-3

D:-4

Correct Answer:- Option-C

Question8:-The series $1 - \frac{1}{2} + \frac{1}{4.2!} + \frac{1}{8.3!} + \frac{1}{16.4!} + \dots$ converges to:

A:-e^{-2}

B:-$e^{\frac{1}{2}}$

C:-e^2

D:-$e^{-\frac{1}{2}}$

Correct Answer:- Option-D

Question9:-Let f : $\mathbb{R} \to \mathbb{R}$ be defined as :

$$f(x) = \begin{cases} 0, & if \ x \ is \ irrational \\ \frac{1}{q}, & if \ x = \frac{p}{q} \ where \ p,q \in N \end{cases}$$

A:-f is continuous on $\mathbb{Q}$

B:-f is continuous on $\frac{\mathbb{R}}{\mathbb{Q}}$

C:-f is continuous on $\mathbb{R}$

D:-f is not continuous at 0

Correct Answer:- Option-B

Question10:-Which of the following functions is uniformly continuous on (0,1)?

A:- $f(x) = e^{\frac{1}{x}}$

B:-$f(x) = \sin^{\frac{1}{x}}$

C:-$f(x) = x \sin^{\frac{1}{x}}$

D:-$f(x) = \frac{\cos x}{x}$

Correct Answer:- Option-C

Question11:-Let $f:[0,1] \to [0,1]$ be a continuous function. Then which of the following statements is true?

A:-f has a fixed point

B:-f is not uniformly continuous

C:-f has a unique fixed point

D:-f is not bounded

Correct Answer:- Option-A

Question12:-Let $f: \mathbb{R} \to \mathbb{R}$ be a thrice differentiable function such that $f(a) = f'(a) = f(b) = f'(b) = 0$ where $a, b \in \mathbb{R}$, $a < b$ Then choose the correct statement.

A:-$f''(a) = 0 = f''(b)$

B:-$f'''(a) = 0$

C:-$f'''(c) = 0$ for some $c \in (a, b)$

D:-None of the above

Correct Answer:- Option-C

Question13:-Consider the sequences of functions $\{f_n\}$ and $\{g_n\}$ defined by

$f_n(x) = \frac{1}{1 + nx}, x \in (0, 1)$

$g_n(x) = \frac{x}{1 + nx}, x \in (0, 1)$

Choose the correct statement from the following:

    A:-g_n converges uniformly on (0,1)

    B:-f_n converges uniformly on (0,1)

    C:-Both f_n and g_n converges uniformly on (0,1)

    D:-Neither f_n nor g_n converges uniformly on (0,1)

    Correct Answer:- Option-A

Question14:-Let $f : [0, 1] \rightarrow [0, 1]$ be defined as :

$f(x) = \begin{cases} 0 & \text{if } x \in \mathbb{Q} \\ x & \text{if } x \in \frac{\mathbb{R}}{\mathbb{Q}} \end{cases}$

Which of the following statements is true?

    A:-The Riemann lower sum of f corresponding to any partition is 1

    B:-The upper Riemann integral of f is $\frac{1}{2}$

    C:-f is Riemann integrable

    D:-None of the above

    Correct Answer:- Option-B

Question15:-Which of the following sets has nonzero Lebesgue measure?

    A:-$\{0\} \cup \left\{ \frac{1}{n} : n \in \mathbb{N} \right\}$

    B:-The Cantor set

    C:-$\mathbb{Q} \cap [0, 1]$

    D:-$\left(\frac{\mathbb{R}}{\mathbb{Q}} \right) \cap [0, 1]$

    Correct Answer:- Option-D

Question16:-Consider the function $f : \mathbb{R}^2 \rightarrow \mathbb{R}$ defined by

$f(x) = \begin{cases} \frac{xy^2}{x^2 + y^4} & \text{if } x \neq 0 \\ 0 & \text{if } x = 0 \end{cases}$

Choose the correct statement from the following:

    A:-f is continuous at (0,0)

    B:-f is differentiable at (0,0)

    C:-f has directional derivatives at (0,0) in all directions

    D:-The directional derivatives of f at (0,0) in the direction of (1,0) does not exists

    Correct Answer:- Option-C

Question17:-The value of the integral $\int_0^1 t^{\frac{-1}{2}} (1 - t)^{\frac{-1}{2}} dt$

    A:-$\frac{\pi}{2}$

    B:-Π

    C:-$\sqrt{\Pi}$

    D:-1

    Correct Answer:- Option-B

Question18:-Let f(x)=x, 0<x<Π . Which of the following is true?

    A:-f(x)= $\Pi \sum_{n=1}^{\infty} \frac{\sin nx}{n}, 0 < x < 2\pi$

    B:-f(x)= $\Pi + 2\sum_{n=1}^{\infty} \frac{\sin nx}{n}, 0 < x < 2\pi$

    C:-f(x)= $\Pi - 2\sum_{n=1}^{\infty} \frac{\sin nx}{n}, 0 < x < 2\pi$

    D:-f(x)= $\Pi + \sum_{n=1}^{\infty} \frac{\cos nx}{n}, 0 < x < 2\pi$

Correct Answer:- Option-C

Question19:-Let f: $\mathbb{R} \to \mathbb{R}$ be a Lebesgue measurable function and $E \subset \mathbb{R}$ be a measurable set. Choose the correct statement from the following:

A:-If $\int_E f dm = 0$ then f=0

B:-If $\int_E f dm = 0$ then m(E)=0

C:-If f(x) ≥ 0, $\forall x \in \mathbb{R}$ and $\int_E f dm = 0$ then $f \equiv 0$

D:-None of the above

Correct Answer:- Option-D

Question20:-Let f: $\mathbb{R}^2 \to \mathbb{R}^2$ be defined by f(x,y)=(x+y, x-y), choose the correct statement from the following:

A:-Df(0,0) does not exist

B:-Df(0,0) exists and is invertible

C:-Df(0,0) exists but not invertible

D:-f does not have a local inverse at (0,0)

Correct Answer:- Option-B

Question21:-Consider the function f: [0,1] $\to \mathbb{R}$ defined by
$$f(x) = \begin{cases} 1 & \text{if } x \text{ is rational} \\ 1 & \text{if } x \text{ is irrational} \end{cases}$$
Which of the following statements is true?

A:-f is Lebsegue integrable and its Lebsegue integral is 1

B:-f is Riemann integrable

C:-f is not Lebsegue integrable

D:-f is Lebsegue integrable and its Lebsegue integral is 0

Correct Answer:- Option-A

Question22:-Let G be a non-abelian group of order 6. Then the number of subgroups of G of order 2 is

A:-1

B:-2

C:-3

D:-4

Correct Answer:- Option-C

Question23:-Which of the following pairs of groups are isomorphic:

A:- $\mathbb{Z}_{16}$, $\mathbb{Z}_4 \times \mathbb{Z}_4$

B:- $\mathbb{Z}_2 \times S_3$, $\mathbb{Z}_{12}$

C:-D_4, $\mathbb{Q}_8$

D:-$(\mathbb{R}, +) \cdot (\mathbb{C}, +)$

Correct Answer:- Option-D

Question24:-The number of abelian groups of order 36 (up to isomorphism) is

A:-8

B:-4

C:-2

D:-1

Correct Answer:- Option-B

Question25:-Let G be a group of order n. Then G is cyclic if n is:

A:-15

B:-21

C:-39

D:-55

Correct Answer:- Option-A

Question26:-Let G be a group of order 28. Which of the following statements is true?

A:-G is simple

B:-G has at least 2 subgroups of order 7

C:-G has a normal subgroup of order 7

D:-Number of elements in G of order 7 is 7

Correct Answer:- Option-C

Question27:-Which if the following is a class equation of a group of order 10?

A:-$10 = 2 + 2 + 2 + 2 + 2$

B:-$10 = 1 + 2 + 2 + 5$

C:-$10 = 1 + 1 + 3 + 5$

D:-$10 = 1 + 1 + 1 + 1 + 1 + 5$

Correct Answer:- Option-B

Question28:-Choose the correct statement from the following:

A:-A_5 is simple

B:-A_4 is simple

C:-S_3 is simple

D:-S_4 is simple

Correct Answer:- Option-A

Question29:-Let $\mathbb{R}[x]$ be the polynomial ring over the field of real numbers. Which of the following set I is an ideal in $\mathbb{R}[x]$

A:-$I = \mathbb{Z}[x]$

B:-$I = \{P(x) \in \mathbb{R}[x] : P(2) = 0\}$

C:-$I = \mathbb{Q}[x]$

D:-$I = \{P(x) \in \mathbb{R}[x] : P(0) = 1\}$

Correct Answer:- Option-B

Question30:-Let <p(x)> denotes the ideal generated by the polynomial p(x) in $\mathbb{Z}[x]$. Choose the correct statement from the following

A:- $<x>$ is a maximal ideal

B:- $<x^2>$ is a prime ideal

C:-Every prime ideal in $\mathbb{Z}[x]$ is a maximal ideal

D:-The set $\{P(x) \in \mathbb{Z}[x] : P(0) = 0 = P(1)\}$ is not a prime ideal

Correct Answer:- Option-D

Question31:-Choose the true statement from the following:

A:-$\mathbb{Z}$ is a UFD but $\mathbb{Z}[x]$ is not a UFD

B:-$\mathbb{Z}$ and $\mathbb{Z}[x]$ are both PIDs

C:-$\mathbb{Z}$ is a PID but $\mathbb{Z}[x]$ is not a PID

D:-$\mathbb{Z}$ and $\mathbb{Z}[x]$ are both Euclidean domains

Correct Answer:- Option-C

Question32:-Which of the following is a field?

A:-$Z_5[x]/<x^2 + 3>$

B:-$Z_2[x]/<x^2 + 1>$

C:-$Z_4[x]/<x^2 + 3>$

D:-$Z_4[x]/<x^2 + 1>$

Correct Answer:- Option-A

Question33:-The Galois group of the splitting field of $x^3 - 2$ over $\mathbb{Q}$ is isomorphic to:

A:-$\mathbb{Z}_3$

B:-$\mathbb{Z}_4$

C:-D_4

D:-S_3

Correct Answer:- Option-D

Question34:-The number of generators of the multiplicative group of a field of order 81 is:

A:-54

B:-32

C:-80

D:-79

Correct Answer:- Option-B

Question35:-Let $p(x) \in \mathbb{R}[x]$. If p(x) is irreducible then p(x) can be:

A:-2x+2

B:-$x^2 - \Pi$

C:-$3x^5 + 4x^2 + 7$

D:-$x^4 + x^3 + 2x^2 + 7$

Correct Answer:- Option-A

Question36:-If $d: M \times M \to [0, \infty)$ defined by $d(A, B) = |\det(A) - \det(B)|$ for all $A, B \in M$ where M is the set of all $n \times n$ matrices over $\mathbb{R}$, then

A:-d is a metric on M

B:-d is a pseudo metric on M

C:-both (1) and (2) are true

D:-None of these are true

Correct Answer:- Option-B

Question37:-If the metric space (X, τ) is both totally bounded and complete, then it is

A:-Connected

B:-Discrete

C:-Compact

D:-Not Compact

Correct Answer:- Option-C

Question38:-The set $\left\{ \frac{1}{M} + \frac{1}{n} ; m . n \in \mathbb{N} \right\} \cup \{0\}$

A:-Compact and open

B:-Compact but not open

C:- not compact but open

D:-neither compact not open

Correct Answer:- Option-B

Question39:-Which of the following statement is false?

A:-Every regular Liudeloff space is notmal

B:-Every regular separable space is normal

C:-Product of two housdorff spaces is housdorff

D:-Every regular second countable space is normal

Correct Answer:- Option-B

Question40:-Which of the following statement is not correct

A:-Connectedness is a hereditary property

B:-Connectedness is not a weakly hereditary property

C:-If C is a dense subset of topological space X and if C is connected, then X is connected

D:-Compactness is a weakly hereditary property

Correct Answer:- Option-A

Question41:-The space $[0, 1]^w$ with the product topology is

A:-Bounded

B:-Unbounded

C:-Finite

D:-Metrizable

Correct Answer:- Option-D

Question42:-If $[X,\tau]$ is Housdorff and X is finite, then τ is the

A:-Discrete topology

B:-Co-infinite topology

C:-Finite topology

D:-All of these

Correct Answer:- Option-A

Question43:-The conjugate of 1+i with respect to the circle $|z-1|=2$ is

A:-1-i

B:-1-4i

C:-1+2i

D:--1-1i

Correct Answer:- Option-B

Question44:-If $1, w, w^2$ are the complex cube roots of unity, then $(x-y)(x-wy)\left(x-w^2y\right)$

A:-$x-y$

B:-x^2-y^2

C:-x^3-y^3

D:-x^3+y^3

Correct Answer:- Option-C

Question45:-Pick the correct statement from the following four statements

A:-$|\sin z| \leq 1$ for all $z \in \mathbb{C}$

B:-$\sin^2 z + \cos^2 z = 1$ for all $z \in \mathbb{C}$

C:-$\sin z = \dfrac{e^{iz}-e^{-(iz)}}{2}$ for all $z \in \mathbb{C}$

D:-$\cos z = \dfrac{e^{iz}-e^{-(iz)}}{2i}$ for all $x \in \mathbb{C}$

Correct Answer:- Option-B

Question46:-The function $f(z) = \bar{z}$ is

A:-analytic at $z = 0$

B:-differentiable at $z = 0$

C:-an entire function

D:-continuous everywhere

Correct Answer:- Option-D

Question47:-The harmonic conjugate of x^2-y^2 is

A:-x^2+y^2

B:-2xy

C:- 4xy

D:-y^2-x^2

Correct Answer:- Option-B

Question48:-Consider the functions $f(z) = e^z$ and $g(z) = e^{iz}$ and $S = \{z \in \mathbb{C} : Rez \in [-\Pi, \Pi)\}$ Then

A:-f is an onto entire function

B:-g is a one one entire function on S

C:-g is bounded on $\mathbb{C}$

D:-f is bounded on S

Correct Answer:- Option-D

Question49:-The power series $\sum_{n=0}^{\infty} 2^{-n} z^{2\wedge n}$ converges is

A:-$|z| \leq 2$

B:-$|z| < 2$

C:-$|z| \leq \sqrt{2}$

D:-$|z| < \sqrt{2}$

Correct Answer:- Option-D

Question50:-Dimensions of $\mathbb{C}^n$ over $\mathbb{R}$ is

A:-n

B:-n+1

C:-2(n+1)

D:-2n

Correct Answer:- Option-D

Question51:-Which of the following is a Banach space

A:-Space of all polynomial functions on [a,b] with the supremum norm

B:-Space of all continuous functions on [a,b] with the supremum norm

C:-Space of all polynomial functions on [a,b] with the p-norm

D:-Space of all continuous functions on [a,b] with the p-norm

Correct Answer:- Option-B

Question52:-The term Hilbert space stands for a

A:-Complete inner product space

B:-Compact linear space

C:-Complete normed space

D:-Complete metric space

Correct Answer:- Option-A

Question53:-Let H be a Hilbert space and L be a subspace of H. Then which of the following is false.

A:-$L^{\perp}$ is a closed subspace of H

B:-$L^{\perp}$ is a subspace of H

C:-$L \cap L^{\perp} = \{0\}$

D:-$L \cap L^{\perp} = \varphi$

Correct Answer:- Option-D

Question54:-If $p \geq q \geq 1$, then which of the following is/are true.

A:-$l_p \subset l_q$

B:-$l_p \supset l_q$

C:-$l_p = l_q$

D:-$l_p \cap l_q = l_p$

Correct Answer:- Option-B

Question55:-Consider the following statements about a Hilbert space
P: H is separable if it has a countable dense subset
Q: H is separable if it has a complete orthonormal system

A:-Only P is true

B:-Only Q is true

C:-Both are true

D:-Neither P nor Q are true

Correct Answer:- Option-C

Question56:-If X and Y are normed spaces, and if $T:X \to Y$ is a linear operator, then T is bounded if and only if

A:-T maps bounded subsets of X into bounded subsets of Y

B:-T maps open subsets of X into open subsets of Y

C:-T maps closed subsets of X into closed subsets of Y

D:-T is invertible

Correct Answer:- Option-A

Question57:-The complete integral of $z^2 = pqxy$ is

A:-$z = x^a y^b$

B:-$z = xy^a$

C:-$z = bx^a y^{\frac{1}{a}}$

D:-$z = x^a y$

Correct Answer:- Option-C

Question58:-A complete solution of the partial differential equation $\frac{\partial z}{\partial x} - 3x^2 = \left(\frac{\partial z}{\partial y}\right)^2 - y$ is

A:-$z^2 = ax^2 + by^2 + 1$

B:-$z = ax + x^3 + \frac{2}{3}(a+y)^{\frac{3}{2}} + b$

C:-$\sqrt{z} = \sqrt{x+a} + \sqrt{y+b}$

D:-$z = \left(ax^2 + by^2\right)^{\frac{3}{2}} + 2$

Correct Answer:- Option-B

Question59:-The partial differential equation $u_t\_t = c^2\left(u_x\_x + u_{yy}\right)$ where $c \neq 0$ is known as

A:-heat equation

B:-wave equation

C:-Laplace Equation

D:-Poisson Equation

Correct Answer:- Option-B

Question60:-The general integral of the PDE is $y^2 p - xyq = x(z - 2y)$ is

A:-$\varphi\left(x^2 + y^2, y^2 - yz\right) = 0$

B:-$\varphi\left(x^2 - y^2, y^2 + yz\right) = 0$

C:-$\Phi\left(xy, yz\right) = 0$

D:-$\varphi\left(x + y, (bx - z)\right) = 0$

Correct Answer:- Option-A

Question61:-The solution of the differential equation $\frac{dy}{dx} + y \tan x = \sec x$ is

A:-$\sin x - c \cos x$

B:-$\sin x + c \cos x$

C:-$(y - \sin x) \sin x = c$

D:-None of these

Correct Answer:- Option-B

Question62:-The integrating factor of the differential equation $x \log x \frac{dy}{dx} + y = 2 \log x$ is

A:-$\log(\log x)$

B:-e^x

C:-$\log x$

D:-x

Correct Answer:- Option-C

Question63:-The solution of the Differential Equation $\frac{dy}{dx} = \frac{y}{x} = \sqrt{\frac{y^2}{x^2} - 1}$ is

A:-$y + 2\sqrt{x^2 + y^2} = cx$

B:-$y + 2\sqrt{y^2 - x^2} = cx$

C:-$y + \sqrt{y^2 - x^2} = c$

D:-$y + \sqrt{x^2 + y^2} = c$

Correct Answer:- Option-D

Question64:-Any prime of the form 3n+1 is also of the form

A:-6m

B:-6m+1

C:-6m+2

D:-6m+3

Correct Answer:- Option-B

Question65:-What is the remainder when the sum $1^5 + 2^5 + 3^5 + \dots + 99^5 + 100^5$ is divided by 4

A:-0

B:-1

C:-2

D:-3

Correct Answer:- Option-A

Question66:-Solution of the congruence equation $x \equiv 1(\bmod\ 3), x \equiv (\bmod\ 5), x \equiv (\bmod\ 7)$ is

A:-32(mod 105)

B:-42(mod 105)

C:-52(mod 105)

D:-62(mod 105)

Correct Answer:- Option-C

Question67:-φ is the Euler Phi function, $\varphi(3n) = 2\varphi(n)$ if and only if

A:-n is an even number

B:-n is a multiple of 3

C:-n is odd

D:-n is not a multiple of 3

Correct Answer:- Option-D

Question68:-$128^{129} \bmod 17$ is

A:-5

B:-7

C:-9

D:-11

Correct Answer:- Option-C

Question69:-Find the remainder when 97! is divided by 101

A:-7

B:-13

C:-17

D:-19

Correct Answer:- Option-C

Question70:-Which of the following is a primitive root of 19?

A:-5

B:-7

C:-9

D:-10

Correct Answer:- Option-D

Question71:-The importance of immediate reinforcement is more emphasised in:

A:-Classical conditioning

B:-Operant conditioning

C:-Insightful learning

D:-Mastery learning

Correct Answer:- Option-B

Question72:-Learning outcome is mainly desirable changes in the:

A:-Content

B:-Learning strategy

C:-Evaluation technique

D:-Behaviour of the learner

Correct Answer:- Option-D

Question73:-Consistency of a test is referred as:

A:-Validity

B:-Reliability

C:-Objectivity

D:-Practicability

Correct Answer:- Option-B

Question74:-Reasoning from general to particular is

A:-deductive

B:-inductive

C:-dialectical

D:-algorithmic

Correct Answer:- Option-A

Question75:-Summative assessment is mostly done through

A:-Project work

B:-lab/.lib activities

C:-written tests

D:-home assignments

Correct Answer:- Option-C

Question76:-Which among the following is an informal experimental design?

A:-Factorial design

B:-Randomized Block design

C:-Before and after with control design

D:-None of these

Correct Answer:- Option-C

Question77:-A teacher conducts a study in her/his classroom situation to correct the errors committed by students in computation. This type of study comes under:

A:-Case study

B:-Action research

C:-Fundamental research

D:-Applied Research

Correct Answer:- Option-B

Question78:-Which among the following measurement possesses a true zero point?

A:-Nominal scales

B:-Ratio scales

C:-Interval scales

D:-Ordinal scales

Correct Answer:- Option-B

Question79:-Which is NOT related to Empirical research?

A:-It is data based

B:-Findings are verified by observation

C:-It relies on experience or observation

D:-It often considers abstract ideas or theories

Correct Answer:- Option-D

Question80:-Which is the first step in writing a research report?

A:-Preparation of draft

B:-Preparation of lay out of the report

C:-Logical analysis of the content

D:-Preparation of Bibliography

Correct Answer:- Option-C

Question81:-Consider the following statements:
(i)   The constituent assembly was set up on 6th December 1946
(ii) The first meeting of the constituent assembly was bold on 10th December 1946
(iii) The first person who addressed the constituent assembly was Dr. Sachidananda Sinha
(iv) Total Strength of the constituent assembly fixed by the cabinet mission, was 389
Which of these statements given above is/are correct?

A:-Only (i) and (ii) are correct

B:-Only (ii) and (iii) are correct

C:-Only (iii) and (iv) are correct

D:-Only (i) and (iv) are correct

Correct Answer:- Option-D

Question82:-Match List I with List II and choose the correct answer using the options given below:
List I   List II
(i)   First Estate   (a) legislature
(ii) Second Estate   (b) Executive
(iii) Third Estate   (c) Judiciary
(iv) Fourth Estate   (d   Press

A:-(i)-(a), (ii)-(b), (iii)-(c), (iv)-(d)

B:-(i)-(b), (ii)-(a), (iii)-(c), (iv)-(d)

C:-(i)-(c), (ii)-(a), (iii)-(b), (iv)-(d)

D:-(i)-(b), (ii)-(c), (iii)-(a), (iv)-(d)

Correct Answer:- Option-A

Question83:-Choose the chronological order of Election Commissioners of India from the options given below:

A:-Sukumar Sen, Kalyan Sundaram, Nagendra Singh, S.P. Sen Verma

B:-Sukumar Sen, Kalyan Sundaram, S.P. Sen Verma, Nagendra Singh

C:-Sukumar Sen, Kalyan Sundaram, T.Swaminathan, Nagendra Singh

D:-Sukumar Sen, Kalyan Sundaram,T.Swaminathan, S.P. Sen Verma

Correct Answer:- Option-B

Question84:-Which statement of the following is correct about comptroller and Auditor General (CAG) of India.

A:-CAG is appointed by the prime minister

B:-CAG holds office for a term of 5 year or 65 years of age whichever is earlier

C:-CAG is an officer of the parliament and is called 'Ears and Eyes of the public Accounts committee

D:-Sashikat sharma is the first CAG of India

Correct Answer:- Option-C

Question85:-Which of the following statements are correct about Article - 352 of Indian constitution:
(i)   President can proclaim National Emergency under article -352
(ii) President can proclaim National Emergency only after receiving a written recommendation from the cabinet
(iii) As per Article - 352, national Emergency is also known as President's Rule
(iv) During National Emergency our federal constitution will be converted in to a unitary one

A:-Only (i), (ii) and (iii) are correct

B:-Only (ii), (iii) and (iv) are correct

C:-Only (i), (ii) and (iv) are correct

D:-All the above (i), (ii), (iii) and (iv) are correct

Correct Answer:- Option-C

Question86:-With reference to National Health Mission, which of the following are the jobs of ASHA (Accredited Social Heath Activist)?
(i)   Encouraging Family planning
(ii) A companying women to the health facility for the antenatal care check up
(iii) Conducting the delivery of baby
(iv) Bringing children to immunization

A:-all the above (i), (ii), (iii) and (iv)

B:-Only (i), (ii) and (iii) are correct

C:-Only (ii), (iii) and (iv) are correct

D:-Only (i), (ii) ad (iv) are correct

Correct Answer:- Option-D

Question87:-Match List I and List II and choose the correct answer using the options given below:
List I	List II
(i) Jan Shree Bima Yojana	(a) April 8, 2015
(ii) Antyodaya Anna Yojana	(b) April12, 2005
(iii) Janani Suraksha Yojana	(c) December 25,200
(iv) Mudra Bank Yojana	(d) August 10,2000

A:-(i)-(a), (ii)-(b), (iii)-(c), (iv)-(d)

B:-(i)-(d), (ii)-(c), (iii)-(b), (iv)-(a)

C:-(i)-(b), (ii)-(a), (iii)-(c), (iv)-(d)

D:-(i)-(c), (ii)-(b), (iii)-(a), (iv)-(d)

Correct Answer:- Option-B

Question88:-Among the following who are eligible to benefit from the "Mahatma Gandhi National Rural Employment Guarantee Act"?

A:-Adult members of only the scheduled caste and scheduled tribe households

B:-Adult members of Below Poverty line (BPL) households

C:-Adult members of household of all Backward Communities

D:-Adult members of any household

Correct Answer:- Option-D

Question89:-With reference to "Aam Admi Bima Yojana" consider the following statements:
(i) The member insured under the scheme must be the head of the family in a rural landless household
(ii)   The member insured must be in the age group of 30 to 65 years
(iii) There is a provision for the free scholarship for upto two children of the insured who are studying between classes 9 and 12
Which of the statements given above is/are correct.

A:-Only (i)

B:-Only (ii) and (iii)

C:-Only (i) and (iii)

D:-All the above (i), (ii) and (iii)

Correct Answer:- Option-C

Question90:-Which of the following is a women empowerment and livelyhood programme started in 2008?

A:-Rashtriya Mahila Koshi

B:-Priyadarshini

C:-Mahila Swayam Sidha Yojana

D:-Indira Mahila Yojana

Correct Answer:- Option-B

Question91:-Which state is the official sponsor of Indian Hockey team?

A:-Gujarat

B:-Odisha

C:-Uttar Pradesh

D:-Maharashtra

Correct Answer:- Option-B

Question92:-Lokayuktha is an authority constituted to prevent

A:-Corruption at administrative, bureaucratic and political levels

B:-Social evils

C:-Pollution of the atmosphere

D:-The intervention of private parties in the functioning of a company

Correct Answer:- Option-A

Question93:-Who proposed the Wardha Education plan?

A:-Raja Ram Mohan Roy

B:-D.K. Karve

C:-Dr. Zakir Husain

D:-Mahatma Gandhi

Correct Answer:- Option-D

Question94:-Who wrote the fanous patriotic song 'Sare Jahan Se Accha, Hindustan Hamara'?

A:-Allama Muhammed Iqbal

B:-Bankim Chandra Chatterji

C:-Dinabandhu Mitra

D:-Altaf Husain Hali

Correct Answer:- Option-A

Question95:-The Mars orbiter Mission (MOM) of India is known as

A:-Chandrayaan

B:-Mangalyaan

C:-Prithviyaan

D:-Gaganyaan

Correct Answer:- Option-B

Question96:-Population density refers to

A:-The number of people in 100 meter

B:-the number of people in a kilometer

C:-the number of people in an acre

D:-the number of people per square kilometer

Correct Answer:- Option-D

Question97:-Who is the chairman of GST council?

A:-Prime Minister

B:-Finance Secretary

C:-Union Finance Minister

D:-RBI Governor

Correct Answer:- Option-C

Question98:-In India, the financial year is from

A:-June 1 to May 31

B:-April 1 to March 31

C:-January 1 to December 31

D:-May 1 to April 30

Correct Answer:- Option-B

Question99:-Which of the following is the penalty imposed on an employee per day if he/she gives wrong and unsatisfactory information on an application under Right to Information Act?

A:-Rs. 250

B:-Rs. 300

C:-Rs. 50

D:-Rs. 150

Correct Answer:- Option-A

Question100:-Who is the author of the famous work 'Jathikummi' exposing evils of caste system to bring in social reformation?

A:-Vagbhatananda

B:-Kumaranasan

C:-Pandit Karuppan

D:-Sree Narayana Guru

Correct Answer:- Option-C