FINAL ANSWER KEY

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Question1:-Variance of the integers from −n to +n will be

A:-`((n+1)(2n+1))/(6)`

B:-`(n(n+1)^(2))/(4)`

C:-`((n+1)(2n+1))/(6)`

D:-`(n(n+1))/(3)`

Correct Answer:- Option-D

Question2:-Which of the following statement is true ?

A:-Mutually exclusive events are always independent

B:-Mutually exclusive events are sometimes independent

C:-Mutually exclusive events are always dependent

D:-There is no connection between independence and mutually exclusiveness

Correct Answer:- Option-C

Question3:-Which of the following condition is not necessary for a class of events $\mathscr{B}$ to become a sigma field ?

A:-The sample space S `epsi` $\mathscr{B}$, `Phiepsi` $\mathscr{B}$`

B:-If a set A `epsi` $\mathscr{B}$, `A^(c)` `epsi` $\mathscr{B}$

C:-If `A_(1)`, `A_(2)` , . . . , `epsi` $\mathscr{B}$, their union and intersection are also in $\mathscr{B}$

D:-None of the above

Correct Answer:- Option-D

Question4:-The probability that a leap year will have 53 sundays

A:-`(2)/(7)`

B:-`(52)/(53)`

C:-`(1)/(7)`

D:-`(1)/(53)`

Correct Answer:- Option-A

Question5:-The distribution which has mean always less than variance is

A:-Normal distribution

B:-Binomial distribution

C:-Weibull distribution

D:-Negative binomial distribution

Correct Answer:- Option-D

Question6:-The moment generating function of a random variable X is `M_(X)(t)=(7)/(10)+(1)/(3)e^(2t)+(4)/(15)e^(3t).` Then the expected value of X is

A:-`(7)/(15)`

B:-`(22)/(15)`

C:-`(22)/(10)`

D:-`(17)/(15)`

Correct Answer:- Option-B

Question7:-In a normal curve, if the area to the right of the point `x_(1)` is 0.6 and area to the left of the point `x_(2)` is 0.7. Then

A:-`x_(1)<x_(2)`

B:-`x_(1)>x_(2)`

C:-`x_(1)=x_(2)`

D:-`x_(1)+x_(2)=1`

Correct Answer:- Option-A

Question8:-If X is a random variable with E(X) = 3 and V(X) = 2 and if P{|X - 3| < h} `>=` 0.99, then the value of h is

A:-14.14

B:-1.414

C:-`(1)/(14.14)`

D:-`(1)/(1.414)`

Correct Answer:- Option-A

Question9:-The variance of t-distribution with n degrees of freedom, where n > 2, is

A:-`(3(n-1))/(n-4)`

B:-`(3n)/(n-2)`

C:-`(n)/(n-2)`

D:-`(n-1)/(n-2)`

Correct Answer:- Option-C

Question10:-If a random variable X ~ `chi^(2)_n` , by Fisher's approximation, for large values of n, the statistic `t=sqrt(2x)-sqrt(2n-1)` follows

A:-`chi^(2)` -distribution with 2n d.f

B:-Standard normal distribution

C:-t-distribution with 2n d.f

D:-None of these

Correct Answer:- Option-B

Question11:-The Kolmorogov-Smirnov one sample test used for testing

A:-Goodness of fit of a distribution

B:-Median of a population

C:-Variance of a population

D:-None of these

Correct Answer:- Option-A

Question12:-As the coefficient of confidence increases, the length of the confidence interval

A:-Increases

B:-Decreases

C:-Remain unchanged

D:-Both are varying independently

Correct Answer:- Option-A

Question13:-Let T and S be two statistics such that S = `phi`(T) for a measurable `phi`. Then

i) If T is complete, then S is complete.

ii) If T is complete and sufficient and `phi` is one-to-one, then S is complete and sufficient.

iii) The results in (a) and (b) still hold if the completeness is replaced by the bounded completeness.

A:-Statement (i) is true, but (ii) and (iii) are false

B:-Statements (i) and (ii) are true but (iii) is false

C:-Statements (i), (ii) and (iii) are false

D:-Statements (i), (ii) and (iii) are true

Correct Answer:- Option-D

Question14:-For two pairs of observations `(x_(1),y_(1))` and `(x_(2),y_(2))` , Pearson's coefficient of correlation will be

A:-0

B:-1 or –1

C:-`(1)/(2)`

D:-None of these

Correct Answer:- Option-B

Question15:-Let `A_(1),A_(2)` ... be independent events on a probability space (S, β, P) and $A = \overline{lim} A_n$, if `sum_(n=1)^oo` `P(A_n)=oo, ` the value of P(A) will be

A:-0

B:-`oo`

C:-1

D:-None of the above

Correct Answer:- Option-C

Question16:-To test λ = 2 against the alternative λ = 1 for a population having density function f(x)=`Lambdae^(-Lambdax)` , x`>=` 0, the suggested critical region based on one observation x is x >= 1. Then the significance level of the test will be

A:-`e^(-2)`

B:-`e^(2)`

C:-`(1)/(e)`

D:-None of the above

Correct Answer:- Option-A

Question17:-Which of the following measure of central tendency is not useful to find the central value when one of the observation is zero ?

A:-Mean

B:-Median

C:-Mode

D:-Geometric mean

Correct Answer:- Option-D

Question18:-The variance of the test statistic of Mann-Whitney-Wilcoxon U test for compairing two samples of sizes `n_(1)` and `n_(2)` will be

A:- $\frac{n_1 n_2 (n_1+n_2)}{12}$

B:- $\frac{n_1 n_2 (n_1+n_2)+1}{6}$

C:- $\frac{n_1 n_2 (n_1+n_2+1)}{12}$

D:- $\frac{n_1 n_2 (n_1+n_2)+1}{12}$

Correct Answer:- Option-C

Question19:-Which of the following estimator is a biased estimator, but consistant based on n observations `x_(1)`, `x_(2)`, ..., `x_(n)` ?

A:- $\frac{1}{n-1}\sum_{x=1}^{n}(x_i-\bar{x})^2$

B:- $\frac{1}{n}\sum_{x=1}^{n}(x_i-\bar{x})^2$

C:-Maximum of `{x_(1),x_(2), ..., x_(n)}```

D:-Minimum of `{x_(1),x_(2), ..., x_(n)}`

Correct Answer:-Question Cancelled

Question20:-The analysis of variance is used to test

A:-The equality of variances of several groups

B:-The equality of means of several groups

C:-The equality of both means and variances of several groups

D:-None of the above

Correct Answer:- Option-B

Question21:-If a sample of n observations are taken from a population having the density function `f(x)=(1)/(b-a), a<x<b,`

A:-Minimum of the observations will be sufficient estimator for b

B:-Maximum of the observations will be sufficient estimator for a

C:-Both 1 and 2 are true

D:-Both 1 and 2 are false

Correct Answer:- Option-D

Question22:-The distribution function of a continuous random variable X is given by

$$F(x)=\begin{cases}0 & if\ \ x<0\\ 1-e^{\{-x^2\}} & if\ \ x>0\end{cases}$$

The probability of X exceeding 1 will be

A:-e

B:-`e^(-2)`

C:-`(1)/(e)`

D:-None of these

Correct Answer:- Option-C

Question23:-The joint pdf of a bivariate random variable (X, Y) is given by
`f(x, y) = 4xye^(-(x^(2)+y^(2)),` `x>= 0, y>=0`
The pdf of `U=sqrt(X^(2)+Y^(2))` will be

A:-`g(u)=(2)/(u^(3)).e^(-u^(3)), u>=0`

B:-`g(u)=2u^(3).e^(-u^(3)), u>=0`

C:-`g(u)=(2)/(u^(3))e^(-u^(2)), u>=0`

D:-`g(u)=2u^(3).e^(-u^(2)), u>=0`

Correct Answer:- Option-D

Question24:-The degrees of freedom of the `chi^(2)` statistics for testing the independence of attributes of a data expressed as a 5 × 4 contingency table will be

A:-20

B:-12

C:-18

D:-19

Correct Answer:- Option-B

Question25:-A statistical test for testing `H_(0):theta=theta_(0)` against `H_(1):theta=theta_(1)` with type I error probability `alpha` and type II error probability `beta` is said to be unbiased, if

A:-`alpha<=1-beta`

B:-`alpha>=1-beta`

C:-`1-alpha!=beta`

D:-None of these

Correct Answer:- Option-A

Question26:-If the p-value of a test is 0.04, which of the following statement is true ?

A:-`H_(0)` can be rejected at 1% level of significance

B:-`H_(0)` can be rejected at 5% level of significance

C:-Both 1 and 2 are true

D:-Both 1 and 2 are false

Correct Answer:- Option-B

Question27:-The sum of two independent exponential random variables with parameter `Lambda` will have

A:-Exponential distribution

B:-Beta distribution

C:-Gamma distribution

D:-None of these

Correct Answer:- Option-C

Question28:-If `X_(1)` and `X_(2)` are two independent Poisson random variables with parameters `Lambda_(1)` and `Lambda_(2)` respectively, the distribution of `X_(1)-X_(2)` will be

A:-Poisson with parameter `Lambda_(1)-Lambda_(2)`

B:-Poisson with parameter `Lambda_(1)+Lambda_(2)`

C:-Binomial with parameter `Lambda_(1)-Lambda_(2)`

D:-None of these

Correct Answer:- Option-D

Question29:-"A function g on R is a characteristic function if and only if it is non-negative definite and continuous". This theorem is known as

A:-Scheffe's theorem

B:-Bochner's theorem

C:-Helly-Bray theorem

D:-None of these

Correct Answer:- Option-B

Question30:-For a normal population with mean `mu` and variance `Sigma^(2)`, the hypothesis `H_(0):mu=mu_(0), Sigma>Sigma_(0)` is a

A:-Simple hypothesis

B:-Composite hypothesis

C:-Neither simple nor composite

D:-None of these

Correct Answer:- Option-B

Question31:-Wald-Wolfowitz run test is used to test

A:-Median of two populations are same

B:-Mean of two populations are same

C:-Variance of two populations are same

D:-Samples are from same population or not

Correct Answer:- Option-D

Question32:-For the sequence of random variables `{X_(n)}` such that `P[X_(n)=+-2^(n)]=(1)/(2),n=1, 2, ...`

A:-WLLN holds

B:-WLLN does not hold

C:-SLLN holds

D:-None of these

Correct Answer:- Option-B

Question33:-Let X be a random variable having t-distribution with n degrees of freedom. Then the distribution of `(1)/(X^(2))` is

A:-F distribution with (n, 1) degrees of freedom

B:-F distribution with (1, n) degrees of freedom

C:-`chi^(2)` distribution with n degrees of freedom

D:-`chi^(2)` distribution with n − 1 degrees of freedom

Correct Answer:- Option-A

Question34:-The joint density function of `X_(1)` and `X_(2)` is
`f(x_(1),x_(2))=e^(-(x_(1)+x_(2))`, `x_(1)>0, x_(2)>0`
The distribution of `(X_(1))/(X_(1)+X_(2))` will be

A:-Gamma distribution with parameters 1 and 2

B:-Exponential with parameter 2

C:-Uniform in the interval (0, 1)

D:-None of these

Correct Answer:- Option-C

Question35:-The mode of F-distribution with `(n_(1),n_(2))` degrees of freedom is

A:- $\frac{n_1(n_2-2)}{n_2(n_1+2)}$

B:- $\frac{n_2(n_1-2)}{n_1(n_2+2)}$

C:- $\frac{n_1(n_2+2)}{n_2(n_1-2)}$

D:- $\frac{n_2(n_1+2)}{n_1(n_2-2)}$

Correct Answer:- Option-B

Question36:-The joint probability distribution of two random variables X and Y are given by :
P{X=−1, Y=0}=P{X=0, Y=0}=P{X=0, Y=1} = P{X=1, Y=0}=`(1)/(8)` and P{X=-1, Y=1}=P{X=1, Y=−1}=`(1)/(4)`.
Obtain the conditional probability distribution of X given Y = 1.

A:-

X	-1	0	1
f(x/y=1)	$\frac{2}{6}$	$\frac{2}{3}$	0

B:-

X	-1	0	1
f(x/y=1)	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$

C:-

X	-1	0	1
f(x/y=1)	$\frac{2}{3}$	$\frac{1}{3}$	0

D:-

X	-1	0	1
f(x/y=1)	1	0	0

Correct Answer:- Option-C

Question37:-If X~B (n, 0.5), n being an odd number, the binomial distribution has a maximum probability at the value/values

A:-`(n-1)/(2)`

B:-`(n+1)/(2)`

C:-`(n-1)/(2) and(n+1)/(2)`

D:-`(n)/(2)-1` and `(n)/(2)+1`

Correct Answer:- Option-C

Question38:-If X follows power series distribution with probability density function `P{X=x}=(a_(x)theta^(x))/(f(theta)), x=1, 2, ...; a>0` and zero elsewhere, where `f(theta) ` =`sumquad_(xepsiS)` `a_(x)theta^(x)` is a generating function; S is a nonempty countable set of non-negative integers, then for what values of θ and f(θ) does this distribution follows negative binomial distribution.

A:-`theta=(p)/(1-p),f(theta)=(1+theta)^(n)`

B:-`theta=(p)/(1+p),f(theta)=(1-theta)^(-n)`

C:-`theta=(p)/(1-p),f(theta)=(1-theta)^(n)`

D:-`theta=(p)/(1+p),f(theta)=(1+theta)^(-n)`

Correct Answer:- Option-B

Question39:-If X and Y are independent Gamma variates with parameters 5 and 8, then `(X)/(Y)` follows _____ distribution.

A:-`beta_(1)` (8, 5)

B:-`beta_(1)` (5, 8)

C:-`beta_(2)` (8, 5)

D:-`beta_(2)` (5, 8)

Correct Answer:- Option-D

Question40:-Let `X_(1)`, `X_(2)`, ... `X_(n)`, be n independent and identically distributed random variables with p.d.f. f(x) and c.d.f. F(x), then the cumulative distribution function of the smallest order statistic is

A:-`1-[F(x)]^(n)`

B:-`[1-F(x)]^(n)`

C:-`[1-F(x)]^(n)-1`

D:-`1-[1-F(x)]^(n)`

Correct Answer:- Option-D

Question41:-Mode and Karl Pearson's coefficient of skewness of a `chi^(2)` distribution, with n degrees of freedom, are at

A:-x = n − 2 and `sqrt((2)/(n))`

B:-x = n − 2 and `sqrt((1)/(n))`

C:-x = n and `sqrt((2)/(n))`

D:-x = n and `sqrt((1)/(n))`

Correct Answer:- Option-A

Question42:-The median of F distribution when `n_(1)` = `n_(2)` is at _____ and the quartiles `Q_(1)` and `Q_(3)` satisfy the condition _____

A:-`F=0, Q_(1)Q_(3)=1`

B:-`F=1, Q_(1)Q_(3)=1`

C:-`F=0.5, Q_(1)Q_(3)=1`

D:-`F=0.75, Q_(1)Q_(3)=1`

Correct Answer:- Option-B

Question43:-If `phi`(x, y, ρ) denote the density function of `N_(2)(0, sum)` , where `sum=[[1,rho],[rho,1]]` then which of the following is true for `Psi(x, y)=(1)/(2)[phi(x, y, 0.5)+phi(x, y, -0.5]` ?

A:-`Psi`(x, y) is bivariate normal

B:-X and Y are independent

C:-X and Y are following N(0, 1)

D:-None of the above

Correct Answer:- Option-C

Question44:-In a trivariate distribution `X_(1),X_(2)` and `X_(3)`, given that `r_(12)=0.7`, `r_(23)=r_(13)=0.5` . Then the partial correlation between `X_(2)` and `X_(3)` is

A:-0.342

B:-0.242

C:-0.547

D:-0

Correct Answer:- Option-B

Question45:-If all the simple correlation coefficients in a set of p-variables are equal to `rho`, then every first order partial correlation coefficients are

A:-`1-rho^(2)`

B:-`1-rho`

C:-`(rho)/(1+rho)`

D:-`(rho)/(1-rho)`

Correct Answer:- Option-C

Question46:-Let X be a trivariate normal random vector with dispersion matrix `sum=[[1,1,1],[1,3,2],[1,2,2]]`. Then the variance of `3X_(1)-2X_(2)+X_(3)` is

A:-23

B:-16

C:-9

D:-25

Correct Answer:- Option-C

Question47:-Let X and Y are two independent `N_(p)` (0, Σ) random vectors with rank (Σ)` ` `<=` p. If A is the g-inverse of Σ, then the distribution of X'AX + Y'AY is

A:-Non-central chi-square with p df

B:-Non-central chi-square with `p^(2)` df

C:-Chi-square with `p^(2)` df

D:-Chi-square with 2p df

Correct Answer:- Option-D

Question48:-Which distribution is the multivariate generalization of Wishart distribution ?

A:-t-distribution

B:-chi-square distribution

C:-F distribution

D:-Normal distribution

Correct Answer:-Question Cancelled

Question49:-Let X be a 4 `xx` 1 random vector with covariance matrix Σ. Suppose the eigen values of Σ are 6, 3, 2 and 1 and let `Y_(1)`, `Y_(2)`, `Y_(3)` and `Y_(4)` be the four principle components. Then `sum_(i=1)^4Var(Y_(1))` is

A:-12

B:-15

C:-36

D:-6

Correct Answer:- Option-A

Question50:-Consider a Markov chain with two states and transition probability matrix `[[(3)/(4),(1)/(4)],[(1)/(2),(1)/(2)]]`. Stationary distribution of this Markov chain is

A:-Do not exists

B:-`[[(1)/(2),(1)/(2)]]`

C:-`[[(2)/(3),(1)/(3)]]`

D:-`[[(1)/(3),(2)/(3)]]`

Correct Answer:- Option-C

Question51:-Suppose that customers arriving at a service counter in accordance with a Poisson process with a mean rate of 3 per minute. Then the probability that the interval between two consecutive arrivals is more than one minute is

A:-0

B:-`e^(-3)`

C:-`e^(-(1)/(3))`

D:-`1-e^(-(1)/(3))`

Correct Answer:- Option-B

Question52:-Consider a branching process whose population size at stage n is denoted by `{X_(n)}` . Assume that the offspring distribution has the probability generating function `as^(2)+bs+c`, where a, b, c are positive and c < a. Then the probability of ultimate extinction is

A:-`(c)/(a)`

B:-1

C:-`(c)/(a+c)`

D:-`(c)/(a-c)`

Correct Answer:- Option-A

Question53:-Which of the following is not a process with stationary independent increments ?

A:-Poisson process

B:-Compound Poisson process

C:-Brownian motion process

D:-None of the above

Correct Answer:- Option-D

Question54:-A cafeteria can seat a maximum of 50 persons. Customers arrive according to Poisson distribution at the rate of 10 per hour and are served at the rate of 10 per hour. Then the expected number of customers in the cafeteria is

A:-25

B:-0

C:-24

D:-25.5

Correct Answer:- Option-A

Question55:-In a renewal process, the inter arrival times between successive renewals are

A:-Independent random variables

B:-Independent and identically distributed random variables

C:-Exponential random variables

D:-Poisson random variables

Correct Answer:- Option-B

Question56:-A Matkov chain `{X_(n)}` on states 0, 1, 2 has transition probability matrix `[[0*1,0*2,0*7],[0*2,0*2,0*6],[0*6,0*1,0*3]]`. Then `P(X_(3)=1|X_(1)=0)=____`

A:-0.2

B:-0.13

C:-0.6

D:-None of these

Correct Answer:- Option-B

Question57:-Which of the following gives the explanatory power of a regression model ?

A:-coefficient of determination

B:-estimates of the regression parameters

C:-interval estimates of regression parameters

D:-variance of model error

Correct Answer:- Option-A

Question58:-While fitting a regression model with 10 regression parameters including intercept with a sample of size 100, the sum of squares of residual errors is obtained as 270. Then an unbiased estimate of model error variance is

A:-2.7

B:-3

C:-27

D:-None of these

Correct Answer:- Option-B

Question59:-The weighted sum of residuals with fitted values of response variable as weight is

A:-zero always

B:-one always

C:-either zero or one

D:-none of the above

Correct Answer:- Option-A

Question60:-Variance inflation factor is generally used to identify

A:-normality of errors

B:-homoscedasticity

C:-multicollinearity

D:-serial correlation of error terms

Correct Answer:- Option-C

Question61:-Durbin Watson test is generally used for

A:-identifying outliers

B:-identifying non-constant error variance

C:-identifying autocorrelation of error terms

D:-checking normality of model error terms

Correct Answer:- Option-C

Question62:-In a simple regression model with intercept, what is the distribution of the OLS estimate of slope parameter, if n is the sample size ?

A:-Standard normal

B:-F with (n, 2) df

C:-Student's with (n − 1) df

D:-None of these

Correct Answer:- Option-D

Question63:-Which of the following method is used to investigate the contribution of a subset of the regressors to the model ?

A:-joint confidence interval estimation

B:-extra sum of squares

C:-all possible regression method

D:-none of these

Correct Answer:- Option-B

Question64:-Which of the following improper integral is convergent ?

A:-`int^(oo)_-ooxsin(x^(2))dx`

B:-`int^(oo)_1(1)/(x^(0.5))dx`

C:-`int^(oo)_-ooxe^(-x^(2))dx`

D:-`int^(oo)_-2sinxdx`

Correct Answer:- Option-C

Question65:-The sequence of functions `{f_(n)}`, n = 1, 2, 3, ..., where `f_(n)(x)=x^(n)`, then which among the following statement(s) is/are true ?

i. `{f_(n)}` is point wise convergent on `[0, (1)/(2)]`

ii. `{f_(n)}` is uniformly convergent on `[0, (1)/(2)]`

iii. `{f_(n)}` is point wise convergent on `[0, 1]`

iv. `{f_(n)}` is uniformly convergent on `[0, 1]`

A:-i only

B:-i and ii only

C:-i, ii and iii only

D:-i, ii, iii and iv

Correct Answer:- Option-C

Question66:-Consider the function `f : R^(2)->R` , where `f(x, y)=sqrt(|xy|)`, then which among the following statement(s) is/are true ?

i. f is continuous at all points (x, y)

ii. f is differentiable at the point (0, 0)

A:-i only

B:-ii only

C:-i and ii

D:-neither i nor ii

Correct Answer:- Option-D

Question67:-Let A be an n × n orthogonal matrix, then which among the following statement(s) is/are true ?

i. The columns of A are orthonormal vectors

ii. The rows of A are orthonormal vectors

iii. `A^(T)=A^(-1)`

A:-i only

B:-i and iii only

C:-ii and iii only

D:-i, ii and iii

Correct Answer:- Option-D

Question68:-Which of the following statement about an n `xx` n idempotent matrix P is not true ?

A:-I – P is idempotent, where I is the n × n identify matrix

B:-Null space of P is the same as the column space of I − P

C:-rank(P) + rank(I – P) = 0

D:-trace(P) = rank(P)

Correct Answer:- Option-C

Question69:-Consider the matrix `A=([1,0,2],[-1,1,3],[0,0,2])`, then

A:-characteristic roots of A are 1 and 2 with algebraic multiplicity 1 and 2 respectively

B:-characteristic roots of A are 1 and 2 with algebraic multiplicity 2 and 1 respectively

C:-characteristic root of A is 1 with algebraic multiplicity 3

D:-characteristic root of A is 2 with algebraic multiplicity 3

Correct Answer:- Option-B

Question70:-The determinant of the matrix `([cosec^(2)theta,cot^(2)theta,1],[cot^(2)theta,cosec^(2)theta,-1],[12,10,2])` is equal to

A:-0

B:-2

C:-`2(cosec^(2)theta+cot^(2)theta)`

D:-`4cot^(2)theta`

Correct Answer:- Option-A

Question71:-A method of teaching which lay stress on individual practical work, careful observation and independent thinking to make the student self-reliant

A:-Lecture method

B:-Heuristic method

C:-Deductive method

D:-Synthetic method

Correct Answer:- Option-B

Question72:-A teacher presents a list of incidents in the contemporary world in a classroom and asks the students to identify the causes for the specific occurrence. Which learning objective is reflected here ?

A:-Analysis

B:-Synthesis

C:-Comprehension

D:-Evaluation

Correct Answer:- Option-A

Question73:-Which among the following factors contribute to effectiveness of teaching ?

i) Teacher's socio-economic background

ii) Teacher's subject competency

iii) Communication skill of the teacher

iv) Teacher's personal appearance

A:-i and ii

B:-ii and iv

C:-i, iii and iv

D:-ii and iii

Correct Answer:- Option-D

Question74:-When the 'test data' is used to assess a student's level of proficiency in a defined area the procedure of evaluation is called

A:-Formative evaluation

B:-Non referenced testing

C:-Summative evaluation

D:-Criterion-referenced testing

Correct Answer:- Option-D

Question75:-Which of the following is a social characteristic of a learner ?

A:-Thinking ability

B:-Conceptualisation

C:-Ability to relate oneself with others

D:-Power of imagination

Correct Answer:- Option-C

Question76:-A sample of the identified population that is studied over a stretched period of time is termed as

A:-Cross sectional survey

B:-Longitudinal study design

C:-Cohort analysis

D:-Before and after study design

Correct Answer:- Option-B

Question77:-Which of the following is a reference management software ?

A:-Mendeley

B:-SmartPLS

C:-Strata

D:-Eviews

Correct Answer:- Option-A

Question78:-Which of the following is a qualitative analysis technique ?

A:-Conjoint analysis

B:-Cluster analysis

C:-Content analysis

D:-MANOVA

Correct Answer:- Option-C

Question79:-State which of the following statements are true.

i. In quota sampling the sample is selected on the basis of certain demographic characteristics

ii. In cluster sampling the elements with in the clusters are homogeneous

iii. Stratified sampling involves dividing the entire population in to strata

A:-i and iii only

B:-i and ii only

C:-ii and iii only

D:-i, ii and iii

Correct Answer:- Option-A

Question80:-Choose the correct statements.

i. Presumed effect of, or response to a change in the independent variable is dependent variable

ii. Validity is the extent to which a variable or set of variables is consistent in what it is intended to measure

iii. Multivariate analysis is the analysis of multiple variable in a single relationship or set of relationships

iv. Type II error is the probability of incorrectly falling to reject the null hypothesis that is actually false

A:-i, ii and iii only

B:-ii, iii and iv only

C:-i, iii and iv only

D:-iii and iv only

Correct Answer:-Question Cancelled

Question81:-There are several ways for the Parliament to show its lack of confidence in the Council of Ministers. Which of the following is not a lack of confidence strategy ?

A:-Rejecting a money bill introduced by the Ministers

B:-Passing a private member bill to which the Council of Ministers is opposed

C:-Bringing up to the Ministers the necessity of tax concessions

D:-Rejecting the Ministry's budget proposal

Correct Answer:- Option-C

Question82:-The Primeminister of India, at the time of his/her appointment

A:-Need not necessarily be a member of one of the houses of Parliament but must become a member of one of the Houses within six months

B:-Not required to belong to a certain House of Parliament, but must join the Loksabha within six months

C:-Must be an elected representative to one of the Houses of Parliament

D:-Must be a member of the Loksabha

Correct Answer:- Option-A

Question83:-Which of the following statements concerning the Election Commission is/are true ?

i. The Election Commission's independence and impartiality are safeguarded and guaranteed by the following provisions in Article 311 of the Constitution.

ii. It serves as a court to resolve disagreements about the recognition of political parties.

iii. Advise the president whether elections can be held in a state under president's rule in order to extend the period of emergency after one year.

A:-Only i

B:-All of the above i, ii, iii

C:-Only ii, iii

D:-Only iii

Correct Answer:- Option-C

Question84:-Take into account the following claims in relation to the Directive Principles of State Policy

i. The framers of the Indian Constitution borrowed the Directive Principles of State Policy from the Italian Constitution.

ii. The Directive Principles seek to revive the lofty principles of justice, liberty, equality and brotherhood stated in the Constitution's Preamble.

iii. The Directive Principles are justiciable.

iv. The government must keep the Directive Principles in mind while making laws.

Of these statements

A:-i, iii and iv are correct

B:-ii, iii and iv are correct

C:-ii and iv are correct

D:-Only i is correct

Correct Answer:- Option-C

Question85:-The constitution of the National Human Rights Commission are

i. Chairperson, five full-time members and seven deemed members

ii. Chairperson, three full time members and three deemed members

iii. Chairperson and seven deemed members

iv. Chairperson and two full time members

A:-Only i is correct

B:-i, ii, iii are correct

C:-Only iv is correct

D:-Only iii is correct

Correct Answer:- Option-A

Question86:-Examine the following statement.
i. Physical assault is a type of domestic abuse.
ii. Sexual abuse is regarded as a kind of domestic violence.
iii. Verbal or emotional abuse is viewed as a kind of domestic violence.
iv. Domestic violence includes acts of economic abuse.
Which of the statements given is/are correct ?

A:-Only i is correct

B:-i, ii are correct

C:-None of the above

D:-All of the above

Correct Answer:- Option-D

Question87:-Consider the following statement with regard to the Protection of Women Against Sexual Harassment Act, 2013. Select the wrong one.

A:-The establishment of an internal complaints committee within the workplace is mandated by the Protection of Women Against Sexual Harassment Act, 2013

B:-The Protection of Women Against Sexual Harassment Act was built on the Vishakha Guideline

C:-As per the act, the Complaints Committees have no powers for collecting evidence

D:-None of the above

Correct Answer:- Option-C

Question88:-Integrated Child Development Services (ICDS) scheme does not seek to fullfill one of the following for the children.

A:-nutritional and health status of children in the age-group 0-6 years

B:-psychological, physical and social development of the child

C:-to reduce the incidence of mortality, morbidity, malnutrition and school dropout

D:-to provide primary education

Correct Answer:- Option-D

Question89:-The Right to Information Act was introduced

A:-to provide information for citizens to promote transparency and accountability in the working of public authority

B:-to make them aware of citizens about their right

C:-to lay down effective guidelines for the state regarding the administration

D:-to resolve issues regarding the financial administration of the government

Correct Answer:- Option-A

Question90:-Targeted group of Pradhan Manthri Mathru Vandana Yojana (PMMVY) scheme is

A:-Women

B:-Children

C:-Workers

D:-None of the above

Correct Answer:- Option-A

Question91:-Which of the following statement is/are correct regarding scientific instruments ?
i. Refract metre is an instrument used to measure the refractive index of a substance
ii. Cyclotron is used for studying the properties of atoms by smashing them
iii. Pyrometer is used for detecting and measuring electric current

A:-Only i and ii

B:-Only i and iii

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

D:-Only ii and iii

Correct Answer:- Option-A

Question92:-Which of the following statement is/are correct on the local self governments in India ?
i. Lord Ripon through his reforms in 1882 provided much needed impetus to local government institutions in India
ii. Article 356 of the constitution of India empowers the state legislature to legislate with respect to any subject relating to local self government
iii. L.M. Sighvi committee recommended more financial resources and constitutional status to Panchayats

A:-Only i and ii

B:-Only i and iii

C:-Only ii and iii

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

Correct Answer:- Option-B

Question93:-Match the following questions :

Particulars on the freedom movement in India	**Year of the event**
A. Bamb Blast on Lord Hardinge	1. 1924
B. Execution of Kudiram Bose	2. 1912
C. All India Depressed Class Conference	3. 1918
D. T. K. Madhavan met Gandhi	4. 1908

A:-A-2, B-4, C-3, D-1

B:-A-2, B-4, C-1, D-3

C:-A-2, B-3, C-4, D-1

D:-A-3, B-1, C-4, D-2

Correct Answer:- Option-A

Question94:-In the question given below, there are two statements marked as Assertion (A) and Reason (R). Mark your answer as per the codes provides below :

Assertion (A) : The Defence Minister of India is the Ex-officio chairman of the National Disaster Management Authority in India.

Reason (R) : The State Disaster Management Authorities are headed by respective Chief Ministers.

A:-Both A and R are true and R is the correct explanation of A

B:-Both A and R are true and R is not the correct explanation of A

C:-A is false but R is true

D:-A is true but R is false

Correct Answer:- Option-D

Question95:-In the question given below, there are two statements marked as Assertion (A) and Reason (R). Mark your answer as per the codes provided below :

Assertion (A) : Dominique Lapierre who passed away recently was a well known French novelist whose works includes Freedom at Midnight

Reason (R) : He has written many of his works in association with the American writer Larry Collins

A:-Both A and R are true and R is the correct explanation of A

B:-Both A and R are true but R is not the correct explanation of A

C:-A is true but R is false

D:-A is false but R is true

Correct Answer:- Option-B

Question96:-Arrange the following leaders of Renaissance in chronological order

i. Thycaud Ayya Vaikundar
ii. Poikayil Yohannan
iii. Pampadi John Joseph
iv. Mannathu Padmanabhan

A:-i, ii, iii and iv

B:-i, iv, ii and iii

C:-iii, i, ii and iv

D:-iv, iii, ii, i

Correct Answer:- Option-B

Question97:-Which of the following statements regarding Women and social change is/are true ?

i. Parvathi Nenmeni Mangalam boycotted cadjan umbrellas
ii. Arya Pallam is a social reformer of Gujarat
iii. Akkamma Cheriyan was popularly known as the Jhansi Rani of Kerala
iv. Lalithambika Antharjanam wrote Agnisakshi

A:-Only i, ii and iii

B:-Only i, iii and iv

C:-Only i, ii, iv

D:-Only i and ii

Correct Answer:- Option-B

Question98:-Which of the following statements regarding Chattampi Swamikal is/are true ?

i. He was a Hindu sage and social reformer
ii. He was born on 25 August 1853
iii. He was the propagator of Advaita philosophy
iv. His resting place was at Sivagiri

A:-Only i, ii and iii

B:-Only i, iii and iv

C:-Only i, ii, iv

D:-Only i and ii

Correct Answer:- Option-A

Question99:-Match the following :
A. Vivekodayam - 1887
B. Prabhatham - 1932
C. Chandrika - 1904
D. Deepika - 1944

A:-A-4, B-3, C-2, D-1

B:-A-3, B-4, C-2, D-1

C:-A-1, B-2, C-3, D-4

D:-A-2, B-3, C-4, D-1

Correct Answer:- Option-B

Question100:-The Akalis from Pubjab came down to the place and set up a free kitchen for the benefit of volunteers. Which Satyagraha is related to this statement ?

A:-Guruvayoor Satyagraha

B:-Vaikom Satyagraha

C:-Ambalapuzha Satyagraha

D:-Cochin Satyagraha

Correct Answer:- Option-B