PROVISIONAL ANSWER KEY

Question1:-Which day is observed as National Voters Day ?

A:-September 14

B:-November 16

C:-January 25

D:-March 20

Correct Answer:- Option-C

Question2:-Which year was the `5^(th)` and last visit of Gandhiji in Kerala ?

A:-1937

B:-1929

C:-1935

D:-1939

Correct Answer:- Option-A

Question3:-Which Chinese traveller who visited Kerala in A.D. 1409 ?

A:-Xuan Zang

B:-Mahuvan

C:-Al-Masudi

D:-Fa-Hien

Correct Answer:- Option-B

Question4:-Who wrote the book "Keralthinte Desa Namangal" ?

A:-S. K. Pottakkad

B:-K. Jayakumar

C:-Praveen Chandran

D:-Chattambi Swami

Correct Answer:- Option-D

Question5:-Who established the Chala Bazar in Thiruvananthapuram ?

A:-Raja Kesavadas

B:-Marthanda Varma

C:-Dharma Raja

D:-C. P. Ramaswami Iyyer

Correct Answer:- Option-A

Question6:-Who was the publisher of the Journal "Deepika" ?

A:-Vakkam Abdul Khadir Maulavi

B:-St. Chavara Kuriakose Elias

C:-Arnos Paathiri

D:-Kattakayam Cherian Mappillai

Correct Answer:- Option-A

Question7:-Who is known as "Father of the library movement in Kerala" ?

A:-Jamnalal Balaji

B:-Puthuvayil Narayana Panicker

C:-Dhondo Keshav Karve

D:-S. K. Pottakad

Correct Answer:- Option-B

Question8:-World Alzheimers day observed on

A:-September 16

B:-October 11

C:-September 21

D:-October 19

Correct Answer:- Option-C

Question9:-Who is the director of the Malayalam film "Neythukkaran" ?

A:-Syamaprasad
B:-Shaji. N. Karun
C:-Priyanandan
D:-Adoor Gopalakrishnan
Correct Answer:- Option-C
Question10:-Who was the head of the fiscal responsibility and budget management committee ?
A:-Rathin Roy
B:-N. K. Singh
C:-Sumit Bose
D:-Arvind Subramanian
Correct Answer:- Option-B
Question11:-Who started "Adilahala" a revolt against the upper caste society ?
A:-Pandit Karuppan
B:-Sahodaran Ayyappan
C:-Ayyankali
D:-Poikayil yohannan
Correct Answer:- Option-D
Question12:-Who is known as the campaigner of Swadesi movement ?
A:-A. V. Kuttimalu Amma
B:-Lalitha Prabhu
C:-Parvathi Nenmeni Mangalam
D:-Arya Pallam
Correct Answer:- Option-A
Question13:-Who was the founder and editor of the journal "Shreemati" ?
A:-A. V. Kuttimalu Amma
B:-Ammu Swaminathan
C:-Accamma Cherian
D:-Anna Chandy
Correct Answer:- Option-D
Question14:-Who is known as "Sarasa Kavi" ?
A:-Pandalam Kerala Varma
B:-P. Keshav Dev
C:-Mooloor S. Padmanabha Panicker
D:-V. T. Bhattathiripad
Correct Answer:- Option-C
Question15:-The highest literary honour instituted by Kerala government is known as
A:-Jnanapith Award
B:-Valayalar Award
C:-Odakkulal Award
D:-Ezhuthachan Award
Correct Answer:- Option-D
Question16:-Which list included "adoption" ?
A:-Union list
B:-State list
C:-Concurrent list
D:-None of these
Correct Answer:- Option-C
Question17:-The latest Indian constitutional amendment related to
A:-Money transfer
B:-GST Bill
C:-Currency withdrawal
D:-Income tax
Correct Answer:- Option-B
Question18:-Who is the founder of the Malayalam journal "Vivekodayam" ?
A:-Vagbhadananda
B:-C. V. Kunjuraman
C:-Ayyankkali
D:-Kumaranasan
Correct Answer:- Option-D

Question19:-How many official languages of U.N.O. ?

    A:-6

    B:-7

    C:-5

    D:-4

    Correct Answer:- Option-A

Question20:-Which is the "Study of mosses" dealt with ?

    A:-Bromatology

    B:-Bryology

    C:-Bionomics

    D:-Batology

    Correct Answer:- Option-B

Question21:-If a force acts on a body, it sets up some resistance to the deformation. This resistance is known as

    A:-Stress

    B:-Strain

    C:-Elasticity

    D:-Modulus of elasticity

    Correct Answer:- Option-A

Question22:-The term deformation per unit length is applied for

    A:-Stress

    B:-Strain

    C:-Modulus of elasticity

    D:-None of these

    Correct Answer:- Option-B

Question23:-Modulus of elasticity is the ratio of

    A:-Stress to original length

    B:-Deformation to original length

    C:-Stress to strain

    D:-All of these

    Correct Answer:- Option-C

Question24:-The ratio of lateral strain to the linear strain is called

    A:-Modulus of elasticity

    B:-Modulus of rigidity

    C:-Bulk modulus

    D:-Poissons ratio

    Correct Answer:- Option-D

Question25:-The value of Poisson's ratio for steel varies from

    A:-0.20 to 0.25

    B:-0.25 to 0.35

    C:-0.35 to 0.40

    D:-0.40 to 0.50

    Correct Answer:- Option-B

Question26:-The algebraic sum of the resolved parts of a number of forces in a given direction is equal to the resolved part of their resultant in the same direction. This is known as

    A:-Principle of independence of forces

    B:-Principle of resolution of forces

    C:-Principle of transmissibility of forces

    D:-None of these

    Correct Answer:- Option-B

Question27:-The resultant of two forces P and Q acting at an angle θ is

    A:-$\sqrt{P^2+Q^2+2PQ\sin\theta}$

    B:-$\sqrt{P^2+Q^2+2PQ\cos\theta}$

    C:-$\sqrt{P^2+Q^2-2PQ\cos\theta}$

    D:-$\sqrt{P^2+Q^2-2PQ\tan\theta}$

    Correct Answer:- Option-B

Question28:-In order to determine two effects of forces acting on a body, we must know

    A:-Its magnitude and direction of the line along which its acts

    B:-Weather push or pull

    C:-Point through which it acts on the body

D:-All of the above

Correct Answer:- Option-D

Question29:-In a compound lever, the leverages of all the simple levers is

A:-Added

B:-Subtracted

C:-Multiplied

D:-Divided

Correct Answer:- Option-C

Question30:-The force of friction between two bodies, one lying above the other, depends upon the roughness of the

A:-area of their contact

B:-relative velocity between them

C:-is always normal to the surface of their contact

D:-all of the above

Correct Answer:- Option-C

Question31:-According to Lami's theorem, the three forces

A:-must be equal

B:-must be at 120° to each other

C:-must be both of above

D:-may not be any of the two

Correct Answer:- Option-D

Question32:-The centre of gravity of hemisphere lies at a distance of _____ from its base.

A:-$(3r)/8$

B:-$(3)/(8r)$

C:-$(8r)/3$

D:-$8/(3r)$

Correct Answer:- Option-A

Question33:-The bending moment at the free end of a cantilever beam carrying any type of load is

A:-Zero

B:-Minimum

C:-Maximum

D:-Equal to the load

Correct Answer:- Option-C

Question34:-An inverted T section is subjected to shear force F. The maximum shear stress will occur at

A:-Top of the section

B:-Neutral axis of the section

C:-Junction of web and flange

D:-None of these

Correct Answer:- Option-B

Question35:-When a solid shaft is subjected to torsion, the shear stress induced in the shaft at its centre is

A:-Zero

B:-Minimum

C:-Maximum

D:-Average

Correct Answer:- Option-A

Question36:-The relation between Youngs modulus (E) Shear modulus (C) and Bulk modulus (K) is given by

A:-$E = (3KC)/(3K + C)$

B:-$E = (6KC)/(3K + C)$

C:-$E = (9KC)/(3K + C)$

D:-$E = (12KC)/(3K + C)$

Correct Answer:- Option-C

Question37:-A localised compressive stress at the area of contact between two members is known as

A:-tensile stress

B:-crushing stress

C:-bending stress

D:-shear stress

Correct Answer:- Option-B

Question38:-The total strain energy stored in a body is termed as

A:-Resilience

B:-Proof of resilience

C:-Impact energy

D:-Modulus of resilience

Correct Answer:- Option-A

Question39:-The stress induced in a body, when suddenly loaded is _____ the stress induced when the same load is applied gradually.

A:-equal to

B:-one half

C:-twice

D:-four times

Correct Answer:- Option-C

Question40:-A beam which is fixed at one end and free at the other is called

A:-Simply supported beam

B:-Fixed beam

C:-Overhanging beam

D:-Cantilever beam

Correct Answer:- Option-D

Question41:-The bending moment on a section is maximum where shear force is

A:-Minimum

B:-Maximum

C:-Changing sign

D:-One

Correct Answer:- Option-C

Question42:-When a load on the free end of a cantilever beam is increased failure will occur

A:-At the fixed end

B:-At the free end

C:-In the middle of the beam

D:-At a distance $(2l)/3$ from free end

Correct Answer:- Option-A

Question43:-The bending moment diagram for a simply supported beam loaded in its centre is

A:-a right angle triangle

B:-an isoscles triangle

C:-an equilateral triangle

D:-a rectangle

Correct Answer:- Option-B

Question44:-A section of beam is said to be in pure bending, if it is subjected to

A:-Constant bending moment and constant shear force

B:-Constant shear force and zero bending moment

C:-Constant bending moment and zero shear force

D:-None of the above

Correct Answer:- Option-C

Question45:-The section modulus of a circular section about an axis through it centre of gravity is

A:-$(Pid^{2})/4$

B:-$(Pid^{2})/16$

C:-$(Pid^{3})/16$

D:-$(Pid^{3})/32$

Correct Answer:- Option-D

Question46:-The maximum deflection of a cantilever beam of length 'l' with a point load W at the free end is

A:-$(WL^{3})/(3EI)$

B:-$(WL^{3})/(8EI)$

C:-$(Wl^{3})/(16EI)$

D:-$(Wl^{3})/(48EI)$

Correct Answer:- Option-A

Question47:-The load required to produce a unit deflection in a spring is called

A:-Flexural rigidity

B:-Torsional rigidity

C:-Spring stiffness

D:-Young's modulus

Correct Answer:- Option-C

Question48:-The hoop stress in a thin cylindrical shell is

A:-Longitudinal stress

B:-Compressive stress

C:-Radial stress

D:-Circumferential stress

Correct Answer:- Option-D

Question49:-According to Euler's column theory, the crippling load for a column of length (L) with one end fixed and the other end hinged is

A:-$\frac{Pi^{(2)}EI}{L^{(2)}}$

B:-$\frac{Pi^{(2)}EI}{(4L^{(2)}}$

C:-$\frac{2Pi^{(2)}EI}{L^{(2)}}$

D:-$\frac{4Pi^{(2)}EI}{L^{(2)}}$

Correct Answer:- Option-C

Question50:-Factor of safety is defined as the ratio of

A:-Ultimate stress to working stress

B:-Working stress to ultimate stress

C:-Breaking stress to ultimate stress

D:-Ultimate stress to breaking stress

Correct Answer:- Option-A

Question51:-In order to determine the natural features such as valley river lakes etc. the surveying is preferred is

A:-City surveying

B:-Location surveying

C:-Cadastral surveying

D:-Topographical surveying

Correct Answer:- Option-D

Question52:-When the position of a point is to be located accurately by a perpendicular offset, the direction of perpendicular is set out by means of

A:-Theodolite

B:-Optical square

C:-Dumpy level

D:-Planimeter

Correct Answer:- Option-B

Question53:-In an optical square, the angle between the first incident ray and the last reflected ray is

A:-60°

B:-120°

C:-90°

D:-150°

Correct Answer:- Option-C

Question54:-The obstacle which obstructs vision but not chaining is a

A:-River

B:-Pond

C:-Hill

D:-All of these

Correct Answer:- Option-C

Question55:-In a prismatic compass, the zero of the graduated ring is located at

A:-North end

B:-South end

C:-East end

D:-West end

Correct Answer:- Option-B

Question56:-The magnetic bearing of a line is 55°30' and the magnetic declination is 4°30' West. The true bearing of a line will be

A:-30°

B:-34°30'

C:-49°

D:-51°

Correct Answer:- Option-D

Question57:-The theodolite is an instrument used for measuring very accurately

A:-Horizontal angles only

B:-Vertical angles only

C:-Horizontal and vertical angles

D:-Linear measurements

Correct Answer:- Option-C

Question58:-The image formed by the objective in the plane of crosshairs is

A:-Real and straight

B:-Real inverted

C:-Virtual and straight

D:-Virtual and inverted

Correct Answer:- Option-B

Question59:-The brightness of the image _____ the magnifying power.

A:-is directly proportional to

B:-is inversely proportional to

C:-varies directly as the square of

D:-varies inversely as the square of

Correct Answer:- Option-D

Question60:-An angle measured clockwise from the proceeding surveyline to the following surveyline is called

A:-Direct angle

B:-Vertical angle

C:-Horizontal angle

D:-Deflection angle

Correct Answer:- Option-A

Question61:-A twisted bar has about _____ more yield stress than ordinary mild steel bar.

A:-10%

B:-20%

C:-35%

D:-50%

Correct Answer:- Option-D

Question62:-In singly reinforced beams, steel reinforcement is provided in

A:-Tensile zone

B:-Compressive zone

C:-Both tensile and compressive zone

D:-Neutral zone

Correct Answer:- Option-A

Question63:-The neutral axis of a balanced section is called

A:-Balanced neutral axis

B:-Critical neutral axis

C:-Equivalent neutral axis

D:-All of these

Correct Answer:- Option-B

Question64:-The longitudinal shearing stresses acting on the surface between the steel and concrete are called

A:-Bond stresses

B:-Tensile stresses

C:-Compressive stresses

D:-None of these

Correct Answer:- Option-A

Question65:-For reinforcing bars in compression, the average bond stress can be increased by

A:-10%

B:-25%

C:-50%

D:-75%

Correct Answer:- Option-B

Question66:-The main advantage of a steel member is that it

A:-has high strength

B:-is gas and water light

C:-has long service life

D:-all of these

Correct Answer:- Option-D

Question67:-For rivet diameters upto 24mm, the diameter of rivet hole is larger than the diameter of rivet by

A:-1mm

B:-1.5mm

C:-2mm

D:-2.5mm

Correct Answer:- Option-B

Question68:-The rivet line is also known as

A:-Scrieve line

B:-Back line

C:-Gauge line

D:-All of these

Correct Answer:- Option-D

Question69:-If the thickness of plate is 't' mm and the nominal diameter of rivet is 'd'mm, then according to Unwin's formula.

A:-d = t$\sqrt(6)$

B:-d = $6\sqrt(t)$

C:-$\sqrt(6t)$

D:-d = 6t

Correct Answer:- Option-B

Question70:-The load on connection is not ecentric for

A:-Lap joint

B:-Single cover butt joint

C:-Double cover butt joint

D:-All of these

Correct Answer:- Option-C

Question71:-Marble is an example of

A:-Aqueous rocks

B:-Sedimentary rocks

C:-Metamorphic rocks

D:-Igneous rocks

Correct Answer:- Option-C

Question72:-In order to dry the quarry sap of a freshly quarried stone it should be exposed to open air for a period of

A:-One month

B:-Four months

C:-Six to twelve months

D:-Two years

Correct Answer:- Option-C

Question73:-The dressing of stone is done

A:-Immediately after quarrying

B:-After seasoning

C:-After three months of quarrying

D:-Just before building construction

Correct Answer:- Option-A

Question74:-The length of a curved tile varies from

A:-10 to 12 cm

B:-12 to 15 cm

C:-15 to 20 cm

D:-20 to 22.5 cm

Correct Answer:- Option-C

Question75:-The lime which consists almost entirely of calcium oxide is called

A:-Poor lime

B:-Rich lime

C:-Hydraulic lime

D:-Limestone

Correct Answer:- Option-B

Question76:-A good quality cement should have higher percentage of

A:-silica

B:-free lime

C:-di-calcium silicate

D:-tri-calcium silicate

Correct Answer:- Option-D

Question77:-The initial setting time of rapid hardening cement should not be less than

A:-30 minute

B:-1 hour

C:-4 hours

D:-8 hours

Correct Answer:- Option-A

Question78:-The rate of hydration and hydrolysis of cement depends upon its

A:-Soundness

B:-Fineness

C:-Setting time

D:-Tensile strength

Correct Answer:- Option-B

Question79:-The solvent used in cement paints is

A:-Thinner

B:-Turpentine

C:-Water

D:-Spirit

Correct Answer:- Option-C

Question80:-The central part of a tree is called

A:-Heart wood

B:-Pith

C:-Sapwood

D:-Annual ring

Correct Answer:- Option-B

Question81:-The minimum load which will cause failure of a foundation is called _____ of the soil.

A:-Ultimate tensile strength

B:-Nominal strength

C:-Ultimate bearing power

D:-Ultimate compressive strength

Correct Answer:- Option-C

Question82:-The maximum bearing capacity of soil is that of

A:-Hard rocks

B:-Black cotton soil

C:-Dry-course sandy soil

D:-Find sandy soil

Correct Answer:- Option-A

Question83:-When two or more footings are connected by a beam is called

A:-Beam footing

B:-Combined footing

C:-Strap footing

D:-Mat footing

Correct Answer:- Option-C

Question84:-The diameter of the drilled piles should not exceed

A:-200 mm

B:-400 mm

C:-600 mm

D:-800 mm

Correct Answer:- Option-C

Question85:-For the pre-cast reinforced concrete piles, the quality of concrete recommended is

A:-$M_{(100)}$ to $M_{(150)}$

B:-$M_{(150)}$ to $M_{(200)}$

C:-$M_{(200)}$ to $M_{(250)}$

D:-$M_{(250)}$ to $M_{(300)}$

Correct Answer:- Option-B

Question86:-For D.P.C. at plinth level, commonly adopted material is

A:-Bitumen sheeting

B:-Plastic sheeting

C:-Mastic asphalt

D:-Cement concrete

Correct Answer:- Option-D

Question87:-A brick which is cut in such a way that the width of its one end is half that of a full brick, is called

A:-King closer

B:-Mitred closer

C:-Bevelled closer

D:-Queen closer

Correct Answer:- Option-A

Question88:-A stone wall provided to protect the slopes of cutting in natural ground from the action of weather is known as

A:-Retaining wall

B:-Breast wall

C:-Parapet wall

D:-Buttress

Correct Answer:- Option-B

Question89:-The sill in a wooden partition wall is the _____ wooden member.

A:-Vertical

B:-Upper horizontal

C:-Lower horizontal

D:-Intermediate horizontal

Correct Answer:- Option-C

Question90:-The projections which help in securing the head of a door frame to the masonry are called

A:-Horns

B:-Reveals

C:-Stops

D:-Styles

Correct Answer:- Option-A

Question91:-No deduction is made for the opening each up to

A:-$0.1m^{2}$

B:-$0.1dm^{2}$

C:-$0.1mm^{2}$

D:-$0.1cm^{2}$

Correct Answer:- Option-A

Question92:-The bearing of roof or floor slab is given same as the thickness of slab usually

A:-10 to 12 cm

B:-10 to 15 cm

C:-15 to 20 cm

D:-None of the above

Correct Answer:- Option-B

Question93:-For calculating, length of the steel bar, length of one hook may be taken as, where d is the diameter of the bar.

A:-0.9d

B:-18d

C:-9d

D:-1.8d

Correct Answer:- Option-C

Question94:-Weight of $1m^{3}$ of steel

A:-7850 kg

B:-7580 kg

C:-8750 kg

D:-None of the above

Correct Answer:- Option-A

Question95:-The scrap value of a building may be about _____ of its total cost of construction.

A:-8%

B:-6%

C:-10%

D:-15%

Correct Answer:- Option-C

Question96:-_____ depends on the amount of depreciation allowed per year.

A:-Book value

B:-Market value

C:-Salvage value

D:-None of the above

Correct Answer:- Option-A

Question97:-The amount of annual instalment of the sinking fund may be foundout by the formulae _____ S = Total amount   n = number of year   i = rate of interest

    A:-$(S(1+i)^{(n)}-1)/i$

    B:-$(Si)/((1+i)^{(n)}-1$

    C:-$(S)/((i+1)^{(n)}-1$

    D:-None of the above

    Correct Answer:- Option-B

Question98:-The mortage value of a property is taken as _____ of the capitalized value.

    A:-$1/2$ to $2/3$

    B:-$1/4$ to $1/2$

    C:-$1/2$ to 1

    D:-None of the above

    Correct Answer:- Option-A

Question99:-Unit of earthwork excavation is

    A:-$1m^{(3)}$

    B:-$10m^{(3)}$

    C:-$10dm^{(3)}$

    D:-$1dm^{(3)}$

    Correct Answer:- Option-B

Question100:-The percentage of mortar usually required for brick masonry is

    A:-12%

    B:-25%

    C:-33%

    D:-10%

    Correct Answer:- Option-C