ASSISTANT PROFESSOR(IT)ENGINEERING COLLEGES

EXAM DATE:28-10-2016

**1.What reflects the quintessence of the constitution?**

A.Fundamental Rights

B.The preamble\*

C.Directive Principles

D.Fundamental Duties

Ans:B

**2.Which are the articles dealing with the Centre-State Relations**

A.Articles 245 to 263\*

B.Articles 200 to 215

C.Articles 145 to 153

D.Articles 295 to 313

Ans:A

**3.What is the subject matter of articles 346 and 347?**

A.Right to Property

B.Appointment of Judges of Right Courts

C.Official language or languages of a State\*

D.Public Service Commission

Ans:C

**4.Which article provides a guaranteed remedy for the enforcement of** **fundamental rights?**

A.Article 32\*

B.Article 23

C.Article 226

D.Article 14

Ans:A

**5.The Central Government has been created the National Green Tribunal on:**

A.29th November 2010

B.24th October 2009

C.12th November 2011

D.18th October 2010\*

Ans:D

**6.In which year Samkshepa Vedartham,The first book in Malayalam was** **published?**

A.1872

B.1847

C.1772\*

D.1782

Ans:C

**7.Ayyankali organized the first planned peasant strike in Kerala at Venganoor in:**

A.1900

B.1909\*

C.1910

D.1904

Ans:B

**8.List out the odd one from the following options**

A.Sree Narayana Guru

B.Madan Asan

C.Raman Pillai

D.Vaikunda Swamigal\*  
Ans:D

**9.Who authored the work Ananda Sutra?**

A.Brahmananda Sivayogi\*

B.Sree Narayana Guru

C.Vaikunda Swamigal

D.Ayyankali

Ans:A

**10.Who was the martyr of Paliyam Satyagraha?**

A.K.G.Velayudhan

B.A.G.Velayudhan\*

C.I.C.Chacko

D.Prakash

Ans:B

**11.Who wrote the pamphlet San-us-Sabah?**

A.Veliyankot Umar Qazi

B.Sayyid Sanaullah Makti Thangal

C.Vakkam Moulavi\*

D.Hamadani Thangal

Ans:C

**12.In which years Kumara Guru was nominated to the Sri Mulam Popular** **Assembly?**

A.1920 and 1921

B.1922 and 1923

C.1921 and 1930

D.1921 and 1931\*

Ans:D

**13.What was the name of the Madras Governor,who ordered the Travancore** **govt.to issue orders for permitting the Channar women to wear jacket and** **pinafore?**

A.Lord Huntington

B.Colonel Hitchcock

C.Lord Baily

D.Lord Haris\*

Ans:D

**14.The first woman Chief Secretary of Kerala**

A.K.O.Aysha Potti

B.K.K.Usha

C.Pathma Ramachandran\*

D.V.S.Ramadevi

Ans:C

**15.Who was the founder of Sree Ramadasa Asramam?**

A.Sree Neelakanda Gurupadar\*

B.Swami Vivekananda

C.Sree Narayana Guru

D.Pazhoor Raman Chennan

Ans:A

**16.The founder of Sabari Asram in Palakkad?**

A.Kumaran Asan

B.Ananda Shenoy

C.T.R.Krishnaswamy\*

D.Pandit Karuppan

Ans:C

**17.The first female Prime Minister of Greece?**

A.Alexix Tsipras

B.Vassiliki Thanon\*

C.Neela Vaswani

D.Svetlana Alexievich

Ans:B

**18.Who won the ‘Global Indian of the Year’award?**

A.Narendra Modi

B.Sachin Tendulkar

C.Aravind Kejrival  
D.Aishwarya Rai Bachachan\*

Ans:D

**19.Who won the Nobel Prize 2015 in Economics?**

A.Carli Lloyd

B.Angus Deaton\*

C.Nadine Kefler

D.Aziz Sanca

Ans:B

**20.Who won the ‘Man of the Match’award in the final match of the ICC World** **Twenty 20 2016?**

A.M.Samuels\*

B.D.Bravo

C.C.Gale

D.A.Russel

Ans:A

**21.If 1,2,3 are the eigen values of a matrix A,then the eigen values of (A-4l)2 are:**

A.-7 ,-12,-15

B.10,4,1

C.9,4,1\*

D.4,4,2

Ans:C

**22.The value of the integral**

**(Symbol) 0 to alpha (e-2tsin2t)/t is**

A.ln5/4

B.ln2/3\*

C.ln2/2

D.l/4

Ans:B

**23.The homogenous linear differential equation if its solutions are e2x,xe2x,x2e2x is:**

**Y’’’+Ay’’+By’-8y=0 where A and B are**

A.6,-12

B.-6,12\*

C.6,12

D.2,2

Ans:B

**24.The following is not a simple pole of the function cot pie z/(z-0.75)2:**

A.0.75\*

B.0

C.-1

D.20

Ans:A

**25.The coefficient an in the Fourier cosine series expansion of the function f(x)=(x-1)2 in interval 0<x<1 is:**

A.-4/n2pie2

B.2/n2pie2

C.2/n2pie2

D.4/n2pie2\*

Ans:D

**26.Centre of gravity of a right circular cone of base radius r and height h from the** **base is:**

A.3/4 h

B.1/4 h\*

C.3/8 h

D.1/8 h

Ans:B

**27.What is the maximum weight that can be lowered by a person who can exert a** **500 N pull a rope if the rope is wrapped 2 ½ turns around a horizontal spur?**

**Coefficient of friction between spur and rope is 0.3:**

A.4.5 N

B.45 N

C.556.59 N

D.55659 N\*

Ans:D

**28.What is the length of a Surveyors chain?**

A.33 ft

B.66 ft\*

C.33 m

D.66 m

Ans:B

**29.R.L.of a factory floor is 100.00,Staff reading on the floor is 5.62 ft.and the staff** **reading when the staff is held inverted with bottom touching the tie beam of the** **roof truss is 1016 ft.What is the height of the tie beam above the floor?**

A.15.78 ft\*

B.115.78 ft

C.4.54 ft

D.104.54 ft

Ans:A

**30.The horizontal distance between the vertical joints in successive courses in** **brick work is called:**

A.Perpends

B.Lap\*

C.Arries

D.Closer

Ans:B

**31.Knocking in a spark ignition engine is promoted by:**

A.A short flame travel length

B.Normally at the beginning of the combustion process

C.Increased clearance volume of cylinder

D.Reduced turbulance of the fuel-air mixture during combustion\*

Ans:D

**32.Centrifugal pumps operating in series will result in:**

A.Higher discharge

B.Reduced power consumption

C.Higher head\*

D.Low speed operation

Ans:C

**33.A good refrigerant should have:**

A.High COP and high freezing point

B.High operating pressures and low freezing point

C.High latent heat of vaporization and low freezing point\*

D.High specific volume and high latent heat of vaporization

Ans:C

**34.In sheet metal blanking,shear is provided on punches and dies so that**

A.Press load is reduced\*

B.Good cut edge is obtained

C.Warping of sheet is minimized

D.Cut blanks are straight

Ans:A

**35.A curve generated by a fixed point on the circumference of a circle which rolls** **without slipping on the outer side of a fixed circle is known as:**

A.Hypocycloid

B.Epicycloid\*

C.Involute

D.Cycloid

Ans:B

**36.Direction of dynamically induced EMF can be found by:**

A.Maxwell’s cork screw rule

B.Flemings Right Hand rule\*

C.Flemings Left Hand rule

D.Coulomb’s law

Ans:B

**37.Form factor of sinussoidally varying alternating current is:**

A.1.414

B.1.11\*

C.1.21

D.2.11

Ans:B

**38.In a Delta connected three phase supply system phase current is given by:**

A.Square root of 3 times line current

B.Line current

C.1/Square root of 2 times line current

D.1/Square root of 3 times line current\*

Ans:D

**39.Earth wire is usually connected to------part of the electric heater.**

A.Metallic body\*

B.Phase point

C.Neutral point

D.Heating coil

Ans:A

**40.Which of the following DC Motor gives highest No.load speed?**

A.Shunt motor

B.Cumulatively compound motor

C.Series motor\*

D.Differentially compound motor

Ans:C

**41.The BJT used in an oscillator circuit is biased in---------region**

A.Active\*

B.Cut-off

C.Saturation

D.None of these

Ans:A

**42.The ripple factor of a capacitor filter’C’connected to the output of a full-wave** **rectifier input line frequency ‘f Hz and load resistance’RL’is:**

A.1/2 Square root of 3 f RLC

B. 1/4 Square root of 3 f RLC\*

C. ½ pie f RLC

D.1/2 Square root of 2 f RLC

Ans:B

**43.The bandwidth of wide band frequency modulated wave as per Carson’s rule** **is:**

A.BT~~2(D+2)W

B. BT~~2(2D+1)W

C. BT~~2(D+1)W\*

D.None of these

Ans:C

**Where D is the deviation ratio and W is the message signal band width.**

**44.For a voltage shunt negative feedback amplifier using operational** **amplifier,select the TRUE statement:**

A.Input impedance decreases and output impedance decreases\*

B.Input impedance increases and output impedance increases

C.Input impedance increases and output impedance decreases

D.Input impedance decreases and output impedance increases

Ans:A

**45.The type of negative feedback introduced in the Common Emitter amplifier** **using voltage divider bias network when the bypass capacitor is removed:**

A.Current shunt

B.Voltage Shunt

C.Voltage series

D.Current Series\*

Ans:D

**46.The CPU gets the address of the next instruction to be executed from the :**

A.Instruction Register

B.Memory address Register

C.Program Counter\*

D.Accumulator

Ans:C

**47.What is the value of b at the end of execution of the following C program?**

**Int add(int a)**

**{**

**Static int count=0**

**Count=count+a**

**Return(count)**

**}**

**Main 0**

**{**

**Int a,b**

**For(a=0,a<=4,a++)**

**b=add(a);**

**}**

A.10\*

B.12

C.4

D.6

Ans:A

**48.What will be the output of the following C program segment?**

**Int n=1;**

**Switch(n)**

**{**

**Case 1:printf(“One”);**

**Case 2:printf(“Two”);**

**Case 3:**

**Case 4:**

**Case 5:**

**Default:printf(“Wrong Choice”)**

**}**

A.One

B.One Two Wrong Choice\*

C.Two

D.One Two

Ans:B

**49.The default parameter passing mechanism of functions is:**

A.Call by value\*

B.Call by reference

C.Call by result

D.None of the above

Ans:A

**50.What is the output of this C code?**

**#include<stdio.h>**

**Int main()**

**{**

**Do**

**Printf(“Inside while loop”);**

**While(0);**

**Printf(“After while loop”);**

**}**

A.Infinite loop

B.Compilation error

C.After while loop

D.Inside while loop After while loop\*

Ans:D

**51.The Euler’s formulae for buckling load for a column for both ends fixed** **condition is:**

A.pie2EI/L2

B. pie2EI/4L2

C. 4pie2EI/L2\*

D.2 pie2EI/L2

Ans:C

**52.The deflection at the free end of a cantilever of length L due to a concentrated** **load of W at distance of L/2 from the free end is:**

A.5 WL3/48EI\*

B. WL3/48EI

C. 5WL3/384EI

D. WL3/384EI

Ans:A

**53.The diagram with direct stress along x-axis and shearing stress along y-axis is** **called:**

A.Mohr’s circle

B.Stress block diagram

C.Influence line diagram

D.Eddy’s diagram\*

Ans:D

**54.For a cantilever beam of length L,the shear force diagram is a rectangle of size** **P x.Then the value of maximum bending moment is:**

A.2PL

B.PL/2\*

C.PL

D.PL/4

Ans:B

**55.A three hinged parabolic arch of span 20 m and central rise 4m is loaded with 4** **concentrated load at 4m from the left end support.The horizontal thrust at the** **left support is:**

A.3 kN\*

B.4 kN

C.2 kN

D.1 kN

Ans:A

**56.A suspension cable of span 120 m is loaded with a uniformly distributed load** **of 25 kN/m for the entire length.If the maximum tension in the cable is limited to** **5000 kN,the minimum central dip required is:**

A.10 m\*

B.9.435 m

C.10.565 m

D.8.965 m

Ans:A

**57.On a simply supported beam AB of span L,a load P is moving from left to** **right.At a section 0.3 L from A,the maximum bending moment is:**

A.0.24 PL

B.0.20 PL\*

C.0.21 PL

D.0.30 PL

Ans:B

**58.The values of flexural rigidity EI and length L for the members AB and BC of the** **rigid frame ABC are equal.Joint B is rigid and the included angle between AB and** **BC at B is 900 Ends A and C are fixed.When a moment of M is applied to the joint** **B,the rotation of the joint B is:**

A.ML/4 EI

B.ML/3 EI

C.ML/12 EI\*

D.ML/8 EI

Ans:C

**59.Slope deflection equation is:**

A.An equilibrium equation

B.A compatibility equation

C.An expression for shear force

D.An expression for member end moment\*

Ans:D

**60.Stiffness matrix for the simply supported beam of span L and flexural rigidity** **EI,with clockwise rotational arrows at both ends as coordinates is:**

A.4EI/L[2 1,1 2(second line)]

B.2EI/L[2 1,1 2(second line)]

C.4EI/L[2 -1,-1 2(second line)]

D.2EI/L[2 -1,-1 2(second line)]\*

Ans:D

**61.M 20 grade of concrete mix is approximately:**

A.1:2:4 mix

B.1:1 1/2 :3 mix

C.1:1:2 mix\*

D.1:3:6 mix

Ans:C

**62.Minimum number of longitudinal steel reinforcement bars required in an RCC** **circular column is:**

A.4

B.6\*  
C.8

D.12

Ans:B

**63.A rectangular RCC beam 230 mm wide x 550 mm effective depth is reinforced** **with 3 numbers of 16 mm diameter bars.M 20 grade concrete and Fe 415 grade** **steel are used.The beam section is :**

A.Under reinforced

B.Balanced\*

C.Over reinforced

D.None of the above

Ans:B

**64.In the design of RCC water tanks,the allowable bending tensile stress for M25** **concrete in N/mm2 is:**

A.1.2

B.1.4

C.1.8

D.2.0\*

Ans:D

**65.The maximum BM in the stem of a cantilever retaining wall will be at**

A.The base\*

B.The top

C.1/3 from the base

D.2/3 from the base

Ans:A

**66.Shape factor for a rectangular section(BxD)is**

A.2.0\*

B.2.5

C.1.5

D.0.5

Ans:A

**67.In a pre-stressed concrete beam of span 6 m and section 300 mm x 500** **mm,the pre-stressing tendons are located along the longitudinal centroidal** **axis,with an effective pres-stressing force of 900kN.If the beam is subjected to a** **uniformly distributed load of 15 kN/m including the self weight of the beam,the** **top and bottom extreme fibre stresses in concrete at the mid span section are** **respectively**

A.6 and 5.4

B.0.6 and 11.4

C.5.4 and 6

D.11.4 and 0.6\*

Ans:D

**68.PERT is**

A.Time oriented

B.Event oriented\*

C.Activity oriented

D.Float oriented

Ans:B

**69.Number of standard bricks required for one cubic metre of brick masonry is**

A.420

B.500

C.800

D.1000\*

Ans:D

**70.The process of calculating the exact quantities of various items of work is** **known as**

A.Mensuration\*

B.Estimating

C.Quantity surveying

D.Valuation

Ans:A

**71.Kaplan turbine is an/a**

A.Impulse turbine

B.Reaction turbine

C.Reciprocating turbine\*

D.None of the above

Ans:C

**72.Pressure in pipes is measured using:**

A.Manometer\*

B.Barometer

C.Venturimeter

D.Pitot tube

Ans:A

**73.A pelton turbine,with six nozzles has specific speed of 8.1.The specific speed of** **one nozzle will be:**

A.2.1

B.3.2\*

C.8.1

D.6.6

Ans:B

**74.A discharge of 3 M3 flows in a canal,2 m wide at a depth of 1.2 m.If the width** **of the canal is reduced to 1.5 m by a canal transition,then neglecting the** **losses,the depth of flow after the contraction will be:**

A.1.10 m

B.1.00 m

C.1.30 m

D.1.60 m\*

Ans:D

**75.In a rectangular open channel flow,for maximum discharge,the hydraulic mean** **depth should be equal to:**

A.Half the width

B.Half the depth

C.Half the length\*

D.Width

Ans:C

**76.Hydrograph is a curve showing the variation of**

A.Discharge with time\*

B.Velocity with time

C.Moisture content with time

D.None of the above

Ans:A

**77.If the duty of a crop for a base period of 120 days is 1250 hectares/cumec,its** **delta is**

A.85 cm

B.80 cm

C.85 cm\*

D.88 cm

Ans:C

**78.The level difference between the top of dam and water level is known as:**

A.Hyudraulic margin\*

B.Pitch

C.Delta

D.Free board

Ans:A

**79.The purpose of cross drainage works is to**A.Take a roadway over a drain

B.Take railway over a drain\*

C.Take a canal across the drain

D.Control the entry of silt in the drain

Ans:B

**80.In a gravity dam,if the resultant force cuts the base within the middle third of** **the body of the dam,the overturning failure will be:**

A.Clockwise

B.Anticlockwise

C.Nil\*

D.None of the above

Ans:C

**81.The soil deposited at the bottom of a lake is known as**

A.Alluvial soil

B.Kankar soil\*  
C.Sandy soil

D.Lacustrine soil

Ans:B

**82.The bulk density of a soil sample is 2.10 gm/CM2 at a water content of** **15%.Without changing the voids ratio,the soil to partially dried to a density of** **1.95 gm/CM2.Then the water content will be**

A.10.68%\*

B.8.6%

C.6.8%

D.5.24%

Ans:A

**83.The curve joining the pointof equal vertical pressure below the earth surface is** **known as**

A.Smear

B.Envelope

C.Influence diagram\*

D.Labour

Ans:C

**84.Flow met can be used in the determination of**

A.See page pressure

B.Exit gradient\*

C.Hydrostatic pressure

D.All the above

Ans:B

**85.The load carrying capacity of a pile can be determined by using**

A.Plate load test

B.Static formulae

C.Friction circle method

D.Bishop’s method\*

Ans:D

**86.The year in which the Motor Vehicle Act is made effective is**

A.1929

B.1931

C.1939

D.1941\*

Ans:D

**87.The instrument used for measuring the spot speed of a vehicle is**

A.Enoscope

B.Speedometer

C.Passometer\*

D.Odometer

Ans:C

**88.Drift method is the best suitable method of tunneling in**

A.Rocks\*

B.Ordinary soil

C.Self supporting soil

D.Sandy soil

Ans:A

**89.The design speed of a road is 65 kmph,the friction coefficient is 0.36 and** **reaction time of driver is 2.5 sec.Then the head light sight distance is**

A.90 m

B.90.5 m

C.91 m\*

D.91.4 m

Ans:C

**90.The spot speed observation is kmph are** **50,40,60,54,45,31,72,58,43,52,46,56,60,65,33.Then the time mean speed in kmph** **is**

A.50

B.51

C.51.5\*

D.52

Ans:C

**91.The permissible limit for fluoride in drinking water is**

A.3mg/lt

B.2.5 mg/lt

C.1.5mg/lt

D.0.5 mg/lt\*

Ans:D

**92.Bleaching powder containing 25% of available chlorine is used for treating the** **drinking water is 0.2 mg/lt,the bleaching powder required for treating 1 litre of** **water is**

A.0.05 mg\*

B.0.8 mg

C.1.2 mg

D.1.25 mg

Ans:A

**93.Expected value of pH for fresh sewage is**

A.7.5

B.6

C.4

D.0\*

Ans:D

**94.Osmoscope is used for measuring**

A.Turbidity of water

B.Colour of water

C.Odour of water

D.Temperature of water\*

Ans:D

**95.2 million litres of water per day is passing through a sedimentation tank,which** **is 6 m wide.15 m long and having water depth of 3m.The detention time of the** **tank is**

A.6hrs

B.3.25hrs\*

C.4.25hrs

D.6.24hrs

Ans:B

**96.To work from the whole to the part principle is followed in surveying to**

A.Prevent accumulation of errors

B.Complete the surveying quickly

C.Make the plotting easy\*

D.All the above

Ans:C

**97.The last reading taken from any leveling station to the leveling staff is known** **as**

A.Fore sight

B.Intermediate sight

C.Back sight

D.Temporary sight\*

Ans:D

**98.The reading taken to the leveling staff kept at a point A from a leveling station** **of height 100 m is 2.50 m.Then the reduced level of the point A is**

A.102.5 m

B.98.0 m\*

C.98.5 m

D.97.5 m

Ans:B

**99.Number of horizontal hairs in a stadia diaphragm is**

A.1

B.2\*

C.3

D.4

Ans:B

**100.Cause for error in tacheometric surveying is**

A.Personal

B.Instrumental\*

C.Natural

D.All the above

Ans:B