

PROVISIONAL ANSWER KEY

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| Alphacode | A |

Question1:-Gulmarg is a hill station in

- A:-Himachal Pradesh
- B:-Maharashtra
- C:-Jammu and Kashmir
- D:-Tamil Nadu

Correct Answer:- Option-C

Question2:-In India, which coast receives rainfall from North Eastern Monsoon?

- A:-Konkan coast
- B:-Coromandal coast
- C:-Malabar coast
- D:-Gujarat coast

Correct Answer:- Option-B

Question3:-Who is the Deputy Chairman of NITI Aayog?

- A:-Aravind Panagaria
- B:-C. Ranga Rajan
- C:-Urjith Patel
- D:-None of the above

Correct Answer:- Option-A

Question4:-Pradhan Mantri Suraksha Bima Yojana started on

- A:-28th August, 2014
- B:-22nd January, 2015
- C:-22nd September, 2014
- D:-15th July, 2015

Correct Answer:- Option-D

Question5:-How many censuses (including the 2011 census) have been carried out since Independence?

- A:-07
- B:-05
- C:-06
- D:-08

Correct Answer:- Option-A

Question6:-Al-Hilal was a newspaper started for propagating nationalism by

- A:-Mohammed Ali
- B:-Abul Kalam Azad
- C:-Sayed Ahammed Khan
- D:-Mahatma Gandhi

Correct Answer:- Option-B

Question7:-Who was the British Prime Minister at the time of the Second Round Table Conference?

- A:-Clement Atlee
- B:-Neville Chamberlain
- C:-Ramsay MacDonald
- D:-None of the above

Correct Answer:- Option-C

Question8:-Kaladi the birth place of Sankaracharya stands, on the banks of the river

- A:-Pamba
- B:-Bharatapuzha
- C:-Chaliyar
- D:-Periyar

Correct Answer:- Option-D

Question9:-Kerala Pazhama, a pioneering Malayalam works on Kerala history written by

- A:-J. Hough
- B:-K.V. Krishna Ayyar
- C:-Dr. Herman Gundert
- D:-Fr. Ferroli

Correct Answer:- Option-B

Question10:-Who developed Cochin Harbour into a major port?

- A:-Cabral
- B:-Lord Macaulay
- C:-Robert Bristow
- D:-Marthanda Varma

Correct Answer:- Option-C

Question11:-Which social reformer was nominated by Travancore Government as a member of Sri Mulam Praja Sabha?

- A:-Sahodaran Ayyappan
- B:-Dr. Palpu
- C:-Sri Narayana Guru
- D:-Ayyankali

Correct Answer:- Option-D

Question12:-The teachings of one of the following social reformer, helped to strengthen the base of national movement in North Malabar

- A:-Swami Vagbhatananda
- B:-Vaikunda Swamikal
- C:-Chattampi Swamikal
- D:-Sri Narayana Guru

Correct Answer:- Option-A

Question13:-Poikayil Yohannan is associated with the organisation of

- A:-Sadhujana Paripalana Yogam
- B:-Prathyaksha Raksha Daiva Sabha
- C:-Atmavidhya Sangam
- D:-Arya Samajam

Correct Answer:- Option-B

Question14:-Jati Mimamsa (Critique of Caste) is written by

- A:-Chattampi Swamikal
- B:-Pandit Karuppan
- C:-Sri Narayana Guru
- D:-Vaikunda Swamikal

Correct Answer:- Option-C

Question15:-Which social reformer is known as 'Vidyadhiraja'?

- A:-K. Kelappan
- B:-Pandit Karuppan
- C:-Ayyankali
- D:-Chattampi Swamikal

Correct Answer:- Option-D

Question16:-In which year, Fedel Castro officially steps down as President of Cuba?

- A:-2008
- B:-2006
- C:-2015
- D:-1976

Correct Answer:- Option-A

Question17:-Who is the director of the popular film 'Pulimurugan'?

- A:-Tomichan Mulakumpadam
- B:-Vysakh
- C:-Nadir Shah
- D:-Mohanlal

Correct Answer:- Option-B

Question18:-Who hit the fastest Ranji Trophy Century at Thiruvananthapuram?

- A:-Vijay Hasare
- B:-Gughale
- C:-Rishab Pant
- D:-Ankit Bhavan

Correct Answer:- Option-C

Question19:-Who is the minister in charge of Portfolio of Kerala State Dairy Development Department?

A:-V.S. Sunil Kumar

B:-P. Thilothaman

C:-T.P. Rama Krishnan

D:-K. Raju

Correct Answer:- Option-D

Question20:-Britain's Andy Murray won the ATP World Tour Number One Trophy after defeating

A:-Novak Djokovic

B:-Stan Wawrinka

C:-David Goffin

D:-Kei Nishi Kori

Correct Answer:- Option-A

Question21:-The mode of propagation of FM Signal is by

A:-Sky wave

B:-Ground wave

C:-Direct wave

D:-Reflected wave

Correct Answer:- Option-C

Question22:-Adding a weak cell in series with a battery causes

A:-Decrease in Current

B:-Increase in Current

C:-Decrease in Voltage

D:-No Change in Voltage and Current

Correct Answer:- Option-C

Question23:-The ratio of ON time of a Pulse to the OFF time is known as

A:-Pulse Repetition Frequency

B:-Duty Cycle

C:-Time Cycle

D:-ON Cycle

Correct Answer:- Option-B

Question24:-The Time Period of an Astable Multivibrator is given by the expression

A:- $T = RC$

B:- $T = 0.707 RC$

C:- $T = 0.69 RC$

D:- $T = 1.38 RC$

Correct Answer:- Option-C

Question25:-Wien Bridge Oscillator Circuit uses

A:-Negative Feed Back

B:-Positive Feed Back

C:-Both Negative and Positive Feed Back

D:-None of the above

Correct Answer:- Option-C

Question26:-The Amplitude of undammed Oscillation

A:-Decreases with time

B:-Increases with time

C:-Constant

D:-Zero

Correct Answer:- Option-C

Question27:-The impedance of the parallel RLC circuit at Resonance is

A:-Maximum

B:-Minimum

C:-Zero

D:-Equal to DC resistance of the coil

Correct Answer:- Option-A

Question28:-A series resonance circuit used to reject an undesired frequency is known as

A:-Wave guide

B:-Wave trap

C:-Band pass filter

D:-Band stop filter

Correct Answer:- Option-B

Question29:-Which filters are used to block the 50 Hz hum produced by AC mains in Amplifiers?

A:-Low Pass

B:-High Pass

C:-Band Pass

D:-Band Stop

Correct Answer:- Option-A

Question30:-Voltage follower circuits are used for

A:-Current amplification

B:-Voltage amplification

C:-To avoid loading effect of source

D:-All the above

Correct Answer:- Option-C

Question31:-Which of the following is difficult to fabricate in an IC?

A:-Diode

B:-Resistor

C:-Transistor

D:-Choke

Correct Answer:- Option-D

Question32:-The output impedance of an Op-Amp is about

A:-1 M Ω

B:-10 K Ω

C:-500 Ω

D:-50 Ω

Correct Answer:- Option-D

Question33:-In Class B amplifier the Q point is Set Slightly above cut off. The purpose is to

A:-Avoid Cross over distortion

B:-Increase efficiency

C:-Reduce power dissipation

D:-Increase gain

Correct Answer:- Option-A

Question34:-Velocity of sound in water/liquid compared to that of air is

A:-Less

B:-Either Less or More

C:-The Same

D:-More

Correct Answer:- Option-D

Question35:-Specific Gravity of a fully charged Lead-Acid cell at room temperature will be

A:-1.15

B:-1.38

C:-1.835

D:-1.28

Correct Answer:- Option-D

Question36:-For IC 7815 the minimum unregulated DC input voltage should be

A:-+15 V

B:-+17 V

C:-+19 V

D:-+13 V

Correct Answer:- Option-B

Question37:-Two identical transistors having a β of 50 each, are connected as Darlington pair, the current gain β of the amplifier is

A:-100

B:-1

C:-2500

D:-500

Correct Answer:- Option-C

Question38:-Effect of the emitter bypass capacitor in a CE Amplifier is

A:-Gain

- B:-Input impedance
- C:-Output impedance
- D:-Both (1) and (2)

Correct Answer:- Option-D

Question39:-Which of the following is the most preferred type of biasing?

- A:-Emitter bias
- B:-Voltage divider bias
- C:-Base bias
- D:-Both (1) and (3)

Correct Answer:- Option-B

Question40:-A good power supply should have load regulation not more than

- A:-0.10%
- B:-1%
- C:-5%
- D:-10%

Correct Answer:- Option-A

Question41:-The phenomenon which causes reverse breakdown in Zener Diode is known as

- A:-Hall effect
- B:-Break down effect
- C:-Avalanche effect
- D:-Induction effect

Correct Answer:- Option-C

Question42:-The RMS voltage at the transformer secondary is 6 V. Its Peak Value is

- A:-9.6 V
- B:-7.2 V
- C:-8.5 V
- D:-12 V

Correct Answer:- Option-C

Question43:-When a diode is tested using an Ohm meter, it indicates high resistance in both direction, the condition of the diode is

- A:-Open
- B:-Short
- C:-Leaky
- D:-Good

Correct Answer:- Option-A

Question44:-Which of the following is a polarised capacitor?

- A:-Paper Capacitor
- B:-Plastic Film Capacitor
- C:-Ceramic Capacitor
- D:-Tantalum Electrolytic Capacitor

Correct Answer:- Option-D

Question45:-If m and n are the modulus of any counters, then overall modulus of the cascaded counters is given by

- A:- mn
- B:- $2^{(mn)}$
- C:- mn^2
- D:- $(m/n)^2$

Correct Answer:- Option-A

Question46:-IC 7476 is

- A:-D FlipFlop
- B:-RS FlipFlop
- C:-JK FlipFlop
- D:-MS FlipFlop

Correct Answer:- Option-C

Question47:-The output of a particular OP-Amp increases 8 V in 12 ms, the slew rate is

- A:-90 V/ms
- B:-1 V/ms
- C:-1.5 V/ms
- D:-0.67 V/ms

Correct Answer:- Option-D

Question48:-A Binary number 10101 is equivalent to decimal number

- A:-19
- B:-12
- C:-27
- D:-21

Correct Answer:- Option-D

Question49:-The number $(12)_8$ is equivalent to decimal

- A:-12
- B:-20
- C:-10
- D:-4

Correct Answer:- Option-C

Question50:-The expression $\overline{\overline{ABC}}$ can be simplified as

- A:- $\overline{A.B.C}$
- B:- $\overline{AB + BC + CA}$
- C:- $\overline{AB+BC}$
- D:- $\overline{\overline{A+B+C}}$

Correct Answer:- Option-D

Question51:-CMOS circuits are extensively used for One chip computers mainly because of their

- A:-Low power dissipation
- B:-Low cost
- C:-High noise immunity
- D:-Large packing density

Correct Answer:- Option-D

Question52:-The principal disadvantage of a Piezo electric transducer is that it

- A:-can measure only force
- B:-cannot measure static conditions
- C:-is too small to handle
- D:-produces only DC voltage

Correct Answer:- Option-B

Question53:-Loading effect is principally caused by _____ instruments.

- A:-high resistance
- B:-low sensitivity
- C:-high sensitivity
- D:-high range

Correct Answer:- Option-B

Question54:-Total internal reflection can take place when light travels from

- A:-air to glass
- B:-glass to air
- C:-rarer to a denser medium
- D:-denser to a rarer medium

Correct Answer:- Option-D

Question55:-The structure of an optical fibre consist of

- A:-multimode step index
- B:-graded index
- C:-single mode step index
- D:-all of the above

Correct Answer:- Option-D

Question56:-Noise margin is expressed in

- A:-Decibel
- B:-Watt
- C:-Volt
- D:-Phon

Correct Answer:- Option-C

Question57:-An X-OR gate produces an output only when its two inputs are

- A:-high
- B:-low
- C:-different
- D:-same

Correct Answer:- Option-C

Question58:-In a JFET, I_{DSS} is known as

- A:-Drain to source current
- B:-Drain to source current with gate shorted
- C:-Drain to source current with gate open
- D:-None of the above

Correct Answer:- Option-B

Question59:-Which of the following devices has the highest input impedance?

- A:-JFET
- B:-Ordinary transistor
- C:-Crystal diode
- D:-MOSFET

Correct Answer:- Option-D

Question60:-An SCR is turned off when

- A:-Anode current is reduced to zero
- B:-Gate voltage is reduced to zero
- C:-Gate is reverse biased
- D:-None of the above

Correct Answer:- Option-A

Question61:-A diac is _____ switch.

- A:-AC
- B:-DC
- C:-Mechanical
- D:-None of the above

Correct Answer:- Option-A

Question62:-A UJT may be used as

- A:-Amplifier
- B:-Saw tooth generator
- C:-Rectifier
- D:-None of the above

Correct Answer:- Option-B

Question63:-The horizontal plates of a CRO are supplied with _____ to observe the waveform of a signal.

- A:-Sinusoidal wave
- B:-Cosine wave
- C:-Sawtooth wave
- D:-None of the above

Correct Answer:- Option-C

Question64:-The modulus of a counter is

- A:-The number of flipflops
- B:-The actual number of states in its sequence
- C:-The number of times it recycles in a sec
- D:-The maximum no of states

Correct Answer:- Option-B

Question65:-The digital circuit that routes its single input signal to one of 2^n output lines depending on the value of n control lines is

- A:-multiplexer
- B:-demultiplexer
- C:-encoder
- D:-data selector

Correct Answer:- Option-A

Question66:-A full adder can be made up of

- A:-two half adders
- B:-two half adders and a NOT gate
- C:-two half adders and a OR gate
- D:-two half adders and a AND gate

Correct Answer:- Option-C

Question67:-Which of the following is called the Universal Bias?

- A:-Emitter bias
- B:-Voltage divider bias

- C:-Base bias
- D:-None of the above
- Correct Answer:- Option-B

Question68:-The advantage of transistor over Vacuum tube is

- A:-Very small size
- B:-Minimum power loss in the form of heat
- C:-Low operating voltage
- D:-All of the above

Correct Answer:- Option-D

Question69:-Which of the following should be as high as possible?

- A:-signal to noise ratio
- B:-hysteresis
- C:-range
- D:-frequency response

Correct Answer:- Option-A

Question70:-The degree to which variation in the output of an instrument follow input variations is referred to as

- A:-sensitivity
- B:-linearity
- C:-hysteresis
- D:-accuracy

Correct Answer:- Option-B

Question71:-The 8051 microcontroller is of _____ pin package as a _____ processor.

- A:-30, 1 byte
- B:-20, 1 byte
- C:-40, 8 bit
- D:-40, 8 byte

Correct Answer:- Option-C

Question72:-In induction heating depth of penetration is proportional to

- A:- $\sqrt{\text{frequency}}$
- B:- $1/\sqrt{\text{frequency}}$
- C:-frequency
- D:- $(\text{frequency})^2$

Correct Answer:- Option-B

Question73:-The ON state voltage drop across IGBT is

- A:-Less than that across MOSFET
- B:-Greater than that across MOSFET
- C:-Equal to that of MOSFET
- D:-None of the above

Correct Answer:- Option-A

Question74:-Which BUS is bi-directional?

- A:-Data bus
- B:-Control bus
- C:-Address bus
- D:-Multiplexed bus

Correct Answer:- Option-A

Question75:-The composition of soft solder is

- A:-Lead 37% - Tin 63%
- B:-Lead 50% - Tin 50%
- C:-Lead 63% - Tin 37%
- D:-Lead 70% - Tin 30%

Correct Answer:- Option-A

Question76:-Which digital IC package type makes the most efficient use of printed circuit board space?

- A:-SMT
- B:-TO can
- C:-Flat-pack
- D:-DIP

Correct Answer:- Option-A

Question77:-Which of the following can be act as Shear Protectorand

- A:-Serum

- B:-Silicon oil
 - C:-Glucose
 - D:-Glutamic acid
- Correct Answer:- Option-A

Question78:-Non linear relationship between shear stress and shear rate exist in

- A:-Newtonian fluids
- B:-Non Newtonian fluids
- C:-Both (1) and (2)
- D:-None of these

Correct Answer:- Option-B

Question79:-The mechanical means of accomplishing sterilization of fermentation media/equipment is

- A:-ultrasonic
- B:-radiation
- C:-chemical agents
- D:-none of these

Correct Answer:- Option-A

Question80:-The collection efficiency by diffusion increases with

- A:-Decreasing particle size
- B:-Decreasing air velocity
- C:-Both (1) and (2)
- D:-Increasing particle size

Correct Answer:- Option-C

Question81:-MRI machines are calibrated in _____ units.

- A:-Power
- B:-Tesla
- C:-Pressure
- D:-Hertz

Correct Answer:- Option-B

Question82:-Phonocardiograph is used for recording the sounds connected to which of the following

- A:-pumping action of heart
- B:-movement of valves
- C:-pulsation in blood vessels
- D:-none of these

Correct Answer:- Option-A

Question83:-The circuit which controls the Turn ON and Turn OFF and length of X-Ray delivered it to the patient is

- A:-Filament circuit
- B:-HT-circuit
- C:-Timing circuit
- D:-None of these

Correct Answer:- Option-C

Question84:-In dialysis the waste products are transferred to the dialysate by

- A:-Viscosity variation
- B:-Diffusion
- C:-Surface tension
- D:-Centrifuge

Correct Answer:- Option-B

Question85:-Among the following imaging system which has noninvasive character

- A:-CT imaging system
- B:-PET system
- C:-Nuclear imaging system
- D:-Ultrasonic imaging system

Correct Answer:- Option-D

Question86:-The most modern difibrilators will have position for synchronizing discharge pulse with the patient's

- A:-EEG
- B:-ECG
- C:-EMG
- D:-None of these

Correct Answer:- Option-B

Question87:-Cardiac catheterisation is a technique used primarily to diagnose

A:-Nerve deficiencies

B:-Valve deficiencies

C:-Lung deficiencies

D:-None of these

Correct Answer:- Option-B

Question88:-X-Ray images are

A:-Unidimensional

B:-Multidimensional

C:-Two dimensional

D:-Three dimensional

Correct Answer:- Option-C

Question89:-In Audiometer which channel has pure tone or speech output

A:-First

B:-Second

C:-Third

D:-Fourth

Correct Answer:- Option-A

Question90:-In Bio-Telemetry the FDM stands for

A:-Frequency division modulation

B:-Fesimile distance modulation

C:-Fourier domain modulation

D:-Frequency division multiplexing

Correct Answer:- Option-D

Question91:-An Endoscope is an instrument for examining

A:-The Cancer Cells

B:-Blood Flow Rates

C:-The Head Surfaces

D:-A Body Cavity

Correct Answer:- Option-D

Question92:-The ability of the trace to remain visible on the face of CRT is known as

A:-Appearance

B:-Persistence

C:-Resolution

D:-Precision

Correct Answer:- Option-B

Question93:-The implanted receiver has been used with patient for stimulating

A:-nerves

B:-bones

C:-muscles

D:-tracts

Correct Answer:- Option-A

Question94:-A _____ is used to discharge the defibrillator when the paddles are properly positioned.

A:-Thumb switch

B:-Foot switch

C:-Paddle switch

D:-Charge switch

Correct Answer:- Option-A

Question95:-IN ERG measurements the reference electrode is made from

A:-Carbon

B:-Silver

C:-Carbon chloride

D:-Silver chloride

Correct Answer:- Option-D

Question96:-The advantage of star connected supply system is that

A:-Line current is equal to phase current

B:-Two voltages can be used

C:-Phase sequence can be easily changed

D:-It is a simple arrangement

Correct Answer:- Option-B

Question97:-Internet works on

- A:-Packet switching
- B:-Circuit switching
- C:-Both (1) and (2)
- D:-None

Correct Answer:- Option-C

Question98:-A circuit breaker is a

- A:-power factor correcting device
- B:-wave form correcting device
- C:-both (1) and (2)
- D:-current interrupting device

Correct Answer:- Option-D

Question99:-For communication from one network to another _____ device is used

- A:-gate way
- B:-utility server
- C:-printer server
- D:-file server

Correct Answer:- Option-D

Question100:-Coaxial cable consists of _____ concentric copper conductors.

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

Correct Answer:- Option-B