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Registration No:	
Name:	
Date: 26-May-2019	
Examination: 1-LICE JTO T	

PART A - General English and General Studies

Question No.1

1.00

Bookmark

☐

World Humanitarian Day is observed on

- ☐ 18th August - (Alternative 1)
- ☐ 20th August - (Alternative 3)
- ☐ 21th August - (Alternative 4)
- ☒ 19th August - (Alternative 2)

Question No.2

1.00

Bookmark

☐

Air pollution by 'Fly Ash' is caused by

- ☒ Cement industry - (Alternative 3)
- ☐ Coal combustion in thermal power plant - (Alternative 2)
- ☐ Fertilizer plant - (Alternative 1)
- ☐ Floor Mill - (Alternative 4)

Question No.3

1.00

Bookmark

☐

Gobar gas mainly contains

- ☐ Carbon Monoxide - (Alternative 1)
- ☐ Carbon dimonoxide - (Alternative 2)
- ☐ Hydrogen sulphide - (Alternative 3)
- ☒ Methane - (Alternative 4)

Question No.4

1.00

Bookmark

☐

Morning and afternoon, all the young girls and maidens used to gather around the village well with their water pots. There they exchanged pleasures, chatted and discussed. Which of the following is most OPPOSITE in meaning of the word 'gather' as used in the above passage?

- ☒ disperse - (Alternative 2)
- ☐ reduce - (Alternative 3)
- ☒ collect - (Alternative 1)
- ☐ distribute - (Alternative 4)

Question No.5

1.00

Bookmark

☐

Rusting of iron is due to

- ☐ corrosion - (Alternative 4)

- ☐ exudation - (Alternative 3)
- ☒ **oxidation - (Alternative 1)**
- ☐ carbonation - (Alternative 2)

Question No.6

1.00

Bookmark ☐

Which soil is best for the production of cotton?

- ☐ Loam soil - (Alternative 2)
- ☐ Alluvial soil - (Alternative 3)
- ☒ **Black soil - (Alternative 1)**
- ☐ Peaty soil - (Alternative 4)

Question No.7

1.00

Bookmark ☐

There was none _____ did not enjoy the show.

- ☒ **who - (Alternative 1)**
- ☐ whom - (Alternative 3)
- ☐ **that - (Alternative 4)**
- ☐ which - (Alternative 2)

Question No.8

1.00

Bookmark ☐

They _____ for five days.

- ☒ **have been working - (Alternative 4)**
- ☐ is working - (Alternative 1)
- ☐ works - (Alternative 3)
- ☐ has been working - (Alternative 2)

Question No.9

1.00

Bookmark ☐

Naga, Khasi and Garo hills are located in

- ☐ Zanskar range - (Alternative 3)
- ☐ Himalayan range - (Alternative 4)
- ☒ **Karakoram range - (Alternative 2)**
- ☐ **Eastern range - (Alternative 1)**

Question No.10

1.00

Bookmark ☐

_____ metal is used in wires at domestic level.

- ☒ **Copper - (Alternative 4)**
- ☐ Iron - (Alternative 3)
- ☐ Nickel - (Alternative 1)
- ☐ Aluminium - (Alternative 2)

Question No.11

1.00

Bookmark ☐

Terrific means

- ☐ **Terrible - (Alternative 4)**
- ☒ Excellent - (Alternative 3)
- ☐ Big - (Alternative 1)
- ☐ Tragic - (Alternative 2)

Question No.12 1.00

Bookmark ☐

Yesterday my brother ____ till 10 PM.

- ☐ is coming - (Alternative 2)
- ☒ **did not come - (Alternative 3)**
- ☐ was coming - (Alternative 4)
- ☐ came - (Alternative 1)

Question No.13 1.00

Bookmark ☐

Which of the following river originates out of India?

- ☒ **Bhramaputra - (Alternative 1)**
- ☐ Ravi - (Alternative 3)
- ☐ Vyas - (Alternative 2)
- ☐ Jhelum - (Alternative 4)

Question No.14 1.00

Bookmark ☐

It is mainly due to their lethargy that the plan fell ____.

- ☐ out - (Alternative 3)
- ☒ **through - (Alternative 4)**
- ☒ off - (Alternative 2)
- ☐ over - (Alternative 1)

Question No.15 1.00

Bookmark ☐

Yash and Samarth ____ their clothes.

- ☐ had washing - (Alternative 4)
- ☐ has been washing - (Alternative 2)
- ☒ **were washing - (Alternative 3)**
- ☐ was washing - (Alternative 1)

Question No.16 1.00

Bookmark ☐

Automobile exhausts ____ harmful compound in the air.

- ☐ Carbon dioxide - (Alternative 1)
- ☐ Carbon monoxide - (Alternative 2)
- ☐ Smoke - (Alternative 3)

☒ All of these - (Alternative 4)

Question No.17

1.00

Bookmark ☐

Their captain _____ for their team.

- ☐ wishes I to play - (Alternative 1)
- ☐ wishes that me to play - (Alternative 4)
- ☒ wishes me to play - (Alternative 3)
- ☐ wishes to me to play - (Alternative 2)

Question No.18

1.00

Bookmark ☐

It is ____ who was severely punished.

- ☐ his - (Alternative 2)
- ☐ him - (Alternative 1)
- ☐ he's - (Alternative 4)
- ☒ he - (Alternative 3)

Question No.19

1.00

Bookmark ☐

The instrument used to see the distant objects on the earth is

- ☐ Terrestrial Telescope - (Alternative 3)
- ☒ Astronomical Telescope - (Alternative 1)
- ☐ Compound Microscope - (Alternative 4)
- ☐ Simple Microscope - (Alternative 2)

Question No.20

1.00

Bookmark ☐

Which hill station is known as the 'Queen of Satpura'?

- ☐ Cardamom - (Alternative 4)
- ☒ Panchmarhi - (Alternative 1)
- ☐ Mahendragiri - (Alternative 3)
- ☐ Nilgiri - (Alternative 2)

Question No.21

1.00

Bookmark ☐

Which of the following is considered as the "forest of world heritage"?

- ☐ Indian botanic garden, Shibupur in West Bengal - (Alternative 4)
- ☒ Sundarban in West Bengal - (Alternative 3)
- ☐ Nandankanan in Orissa - (Alternative 1)
- ☐ Kaziranga in Assam - (Alternative 2)

Question No.22

1.00

Bookmark ☐

Weight of a free falling body is

- ☒ **Zero - (Alternative 4)**
- ☐ Minimum - (Alternative 2)
- ☐ Variable - (Alternative 3)
- ☐ Maximum - (Alternative 1)

Question No.23

1.00

Bookmark ☐

Rahul has invited Akshay and ____.

- ☐ my - (Alternative 2)
- ☒ **me - (Alternative 3)**
- ☐ I - (Alternative 1)
- ☐ mine - (Alternative 4)

Question No.24

1.00

Bookmark ☐

Cloud is a colloidal of

- ☐ Air in a dispersion medium of water - (Alternative 1)
- ☐ Mist in a dispersion medium of air - (Alternative 3)
- ☒ **Water drop in a dispersion medium of air - (Alternative 4)**
- ☐ Fog in a dispersion medium of water - (Alternative 2)

Question No.25

1.00

Bookmark ☐

Shock absorbers are usually made of

- ☒ Iron - (Alternative 1)
- ☐ **Steel - (Alternative 3)**
- ☐ Plastic - (Alternative 4)
- ☐ Rubber - (Alternative 2)

Question No.26

1.00

Bookmark ☐

The first world war _____ in 1914.

- ☐ begins - (Alternative 3)
- ☒ **began - (Alternative 1)**
- ☐ beginning - (Alternative 4)
- ☐ begin - (Alternative 2)

Question No.27

1.00

Bookmark ☐

Blue Revolution is related to

- ☐ Oil production - (Alternative 3)
- ☐ Milk production - (Alternative 2)
- ☒ **Fish production - (Alternative 1)**
- ☐ Food production - (Alternative 4)

Question No.28

1.00

Bookmark ☐

_____ post office is half a kilometre from here.

- ☐ A - (Alternative 1)
- ☒ **The - (Alternative 2)**
- ☐ An - (Alternative 3)
- ☐ None of these - (Alternative 4)

Question No.29

1.00

Bookmark ☐

He did _____ a letter

- ☒ **write - (Alternative 4)**
- ☐ writes - (Alternative 1)
- ☐ written - (Alternative 2)
- ☐ wrote - (Alternative 3)

Question No.30

1.00

Bookmark ☐

Shri Hoffman says, "New terrorism has no long term agenda but is ruthless in its short term intentions. It is often just a cacophonous cry of protest or an outburst of religious intolerance or a protest against the West in general and the US in particular. Which of the following is most OPPOSITE in meaning of the word 'intolerance' as used in the above passage?

- ☒ melodious - (Alternative 3)
- ☐ loud - (Alternative 2)
- ☐ near - (Alternative 4)
- ☐ **distant - (Alternative 1)**

Question No.31

1.00

Bookmark ☐

The latest Forest Survey of India report has sent shivers down the spine of environmentalists and the green lobby reports our correspondent. Everyday, about 1.45 sq. km. of dense forest cover is being lost in the state on an average due to wanton destruction, especially, illegal falling by timber smugglers.

Which of the following is/are definitely TRUE in context of the above passage?

- A. About 1.45 sq. km. forest cover is lost in the last two years.
- B. 1062 sq. km. and 896 sq. km. forest were lost during the past two years.
- C. The illegal falling of trees had resulted in a loss of 896 sq. km. during the past two years.

- ☐ Only (A) - (Alternative 1)
- ☐ Only (B) - (Alternative 2)
- ☐ All of these - (Alternative 3)
- ☒ **None of these - (Alternative 4)**

Question No.32

1.00

Bookmark ☐

On seeing the lion she felt _____ afraid.

- ☐ very - (Alternative 4)

- ☐ very much - (Alternative 3)
- ☒ much - (Alternative 2)
- ☐ too much - (Alternative 1)

Question No.33

1.00

Bookmark ☐

Chemical name of baking soda is

- ☐ Sodium Chloride - (Alternative 3)
- ☒ Sodium Bicarbonate - (Alternative 2)
- ☐ Sodium Nitrate - (Alternative 4)
- ☐ Sodium Carbonate - (Alternative 1)

Question No.34

1.00

Bookmark ☐

Which of the following does not affect Indian climate?

- ☒ Ocean currents - (Alternative 2)
- ☐ Existence of Indian Ocean - (Alternative 4)
- ☐ Monsoon - (Alternative 1)
- ☐ Proximity to equator - (Alternative 3)

Question No.35

1.00

Bookmark ☐

Consequence means

- ☐ Affect - (Alternative 3)
- ☒ Outcome - (Alternative 4)
- ☐ Serial - (Alternative 2)
- ☐ Indifference - (Alternative 1)

Question No.36

1.00

Bookmark ☐

The forest areas which has borne the onslaught of the timber mafia most during recent years cover almost two fifth of the total area of the state. The timber mafia which have ruled the root in these forest areas have mostly thrived on smuggling our illegally felled timber to neighbouring states. With reference to the above passage complete the following sentence: Two-fifth of the total area of the state had

- ☐ fallen prey in the axes of timber mafia - (Alternative 1)
- ☒ been populated by mafia illegally and forcibly - (Alternative 4)
- ☐ already been opened to timber planters - (Alternative 3)
- ☐ been panted and nourished by timber planters - (Alternative 2)

Question No.37

1.00

Bookmark ☐

Ozone contains

- ☐ Only oxygen - (Alternative 1)
- ☐ Oxygen and Nitrogen - (Alternative 2)
- ☒ Oxygen and Carbon - (Alternative 4)

☐ Hydrogen and Carbon - (Alternative 3)

Question No.38

1.00

Bookmark ☐

In which country 18th Asian Games 2018 were held?

- ☐ China - (Alternative 2)
- ☐ South Korea - (Alternative 4)
- ☐ South Africa - (Alternative 3)
- ☒ Indonesia - (Alternative 1)

Question No.39

1.00

Bookmark ☐

I have not _____ my work yet.

- ☒ finished - (Alternative 3)
- ☐ finish - (Alternative 1)
- ☐ finishing - (Alternative 4)
- ☐ finishes - (Alternative 2)

Question No.40

1.00

Bookmark ☐

They need not _____ for us here.

- ☐ waiting - (Alternative 2)
- ☒ wait - (Alternative 3)
- ☐ to wait - (Alternative 1)
- ☐ waited - (Alternative 4)

Question No.41

1.00

Bookmark ☐

Which of the following is the largest union territory of India?

- ☐ Lakshadweep - (Alternative 4)
- ☐ Chandigarh - (Alternative 1)
- ☐ Puducherry - (Alternative 2)
- ☒ Andaman and Nicobar Islands - (Alternative 3)

Question No.42

1.00

Bookmark ☐

Neither of the girls _____ willing to accept the proposal.

- ☒ was - (Alternative 2)
- ☐ are - (Alternative 3)
- ☐ were - (Alternative 1)
- ☐ am - (Alternative 4)

Question No.43

1.00

Bookmark ☐

Some teachers find it difficult to keep _____ in their classes.

- ☐ orders - (Alternative 2)
- ☐ order's - (Alternative 3)
- ☒ **order - (Alternative 1)**
- ☐ orders' - (Alternative 4)

Question No.44

1.00

Bookmark ☐

Which one of the following is Lubricant?

- ☒ Sulphur - (Alternative 2)
- ☐ **Graphite - (Alternative 3)**
- ☐ Germanium - (Alternative 1)
- ☐ Indium - (Alternative 4)

Question No.45

1.00

Bookmark ☐

He was accused ____ stealing cloth from our retail shop.

- ☐ with - (Alternative 3)
- ☐ for - (Alternative 2)
- ☐ to - (Alternative 1)
- ☒ **of - (Alternative 4)**

Question No.46

1.00

Bookmark ☐

Cooking oil is converted into vegetable ghee by the process of

- ☐ Condensation - (Alternative 3)
- ☐ Oxidation - (Alternative 2)
- ☒ **Hydrogenation - (Alternative 1)**
- ☐ Crystallization - (Alternative 4)

Question No.47

1.00

Bookmark ☐

Where is the largest deposits of coal?

- ☐ Madhya Pradesh - (Alternative 3)
- ☐ Bihar - (Alternative 1)
- ☐ Orissa - (Alternative 4)
- ☒ **Jharkhand - (Alternative 2)**

Question No.48

1.00

Bookmark ☐

The shopkeeper said the fault was the _____ responsibility.

- ☐ manufacturers' - (Alternative 4)
- ☒ **manufacturer's - (Alternative 3)**
- ☐ manufacturer - (Alternative 1)
- ☐ manufacturers - (Alternative 2)

Question No.49		1.00
Elicit means		Bookmark ☐
☒ Extract - (Alternative 3) ☐ Include - (Alternative 1) ☐ Divulge - (Alternative 2) ☐ Instill - (Alternative 4)		
Question No.50		1.00
Sabarimala is situated in which of the following state?		Bookmark ☐
☐ Tamil Nadu - (Alternative 2) ☐ Karnataka - (Alternative 4) ☐ Andhra Pradesh - (Alternative 1) ☒ Kerala - (Alternative 3)		
PART B - Technical Paper		
Question No.1		1.00
The transmission of multiple signals in a common frequency without interference is called		Bookmark ☐
☐ Time division multiplexing - (Alternative 1) ☐ Frequency division multiplexing - (Alternative 2) ☒ Spatial multiplexing - (Alternative 4) ☐ Code division Multiplexing - (Alternative 3)		
Question No.2		1.00
Chip select (CS) connects the output of		Bookmark ☐
☐ slave - (Alternative 4) ☐ encoder - (Alternative 2) ☒ decoder - (Alternative 1) ☐ buffer - (Alternative 3)		
Question No.3		1.00
____ are the transformations in the diagram, which are responsible for central processing functions.		Bookmark ☐
☐ Output transformations - (Alternative 2) ☒ System-processing transformations - (Alternative 3) ☐ Input transformations - (Alternative 1) ☐ Storage transformations - (Alternative 4)		
Question No.4		1.00
Regarding skewing of motor bars in a squirrel cage induction motor, which of the following		Bookmark ☐

statement is false?

- ☐ It produces more uniform torque - (Alternative 3)
- ☐ It prevents cogging - (Alternative 1)
- ☒ **It increases starting torque - (Alternative 2)**
- ☐ It reduces motor 'hum' during its operation - (Alternative 4)

Question No.5

1.00

Bookmark ☐

You can redirect the webpage in JavaScript by which of the following method?

- ☒ **window.location - (Alternative 3)**
- ☐ page.location - (Alternative 2)
- ☐ window.reload - (Alternative 1)
- ☐ url.newlocation - (Alternative 4)

Question No.6

1.00

Bookmark ☐

RISC processors have instructions with

- ☒ **Fixed format - (Alternative 1)**
- ☐ Variable format - (Alternative 2)
- ☐ User defined format - (Alternative 3)
- ☐ None of these - (Alternative 4)

Question No.7

1.00

Bookmark ☐

Memory allocation using malloc() is done in

- ☒ **Heap area - (Alternative 3)**
- ☐ Static area - (Alternative 1)
- ☐ Both Stack & Heap area - (Alternative 4)
- ☐ Stack area - (Alternative 2)

Question No.8

1.00

Bookmark ☐

In electrodyamometer type of Wattmeters the inductance of pressure coil circuit produces error which is

- ☒ **higher at low power factors - (Alternative 1)**
- ☐ lower at low power factors - (Alternative 2)
- ☐ constant irrespective of the power factor of the load - (Alternative 3)
- ☐ None of these - (Alternative 4)

Question No.9

1.00

Bookmark ☐

What is the syntax to overload an operator?

- ☒ **className->operator(parameters) - (Alternative 4)**
- ☐ className:operator(parameters) - (Alternative 2)
- ☐ className.operator(paramteres) - (Alternative 3)

☐ **className::operator(parameters) - (Alternative 1)**

Question No.10

1.00

Bookmark ☐

calloc() initializes memory with all bits set to zero.

- ☐ Depends on the compiler - (Alternative 3)
- ☐ false - (Alternative 2)
- ☒ **true - (Alternative 1)**
- ☐ Depends on the standard - (Alternative 4)

Question No.11

1.00

Bookmark ☐

In which class the 14.23.120.8 address lies?

- ☐ Class B - (Alternative 2)
- ☐ Class E - (Alternative 4)
- ☒ **Class A - (Alternative 1)**
- ☐ Class D - (Alternative 3)

Question No.12

1.00

Bookmark ☐

Which one of the following task is not done by data link layer?

- ☒ **Channel coding - (Alternative 4)**
- ☐ Framing - (Alternative 1)
- ☐ Error control - (Alternative 2)
- ☐ Flow control - (Alternative 3)

Question No.13

1.00

Bookmark ☐

The condensed liquid refrigerant coming out from condenser is stored in receiver and further supplied to

- ☐ Compressor - (Alternative 1)
- ☒ **Expansion valve or Control valve - (Alternative 2)**
- ☐ Evaporator - (Alternative 3)
- ☐ None of these - (Alternative 4)

Question No.14

1.00

Bookmark ☐

A COCOMO model is

- ☒ **Constructive cost estimation model - (Alternative 2)**
- ☐ Complete cost estimation model - (Alternative 3)
- ☐ Common Cost estimation model - (Alternative 1)
- ☐ Comprehensive cost estimation model - (Alternative 4)

Question No.15

1.00

Bookmark ☐

ROM is made up of

- ☐ NAND and OR gates - (Alternative 1)
- ☒ **Decoder and OR gates - (Alternative 3)**
- ☐ NOR and Decoder - (Alternative 2)
- ☐ NAND and Decoder - (Alternative 4)

Question No.16

1.00

Bookmark ☐

An oscilloscope indicates

- ☐ RMS value - (Alternative 3)
- ☒ **Peak to peak value of voltage - (Alternative 1)**
- ☐ Average value - (Alternative 4)
- ☐ D.C value of voltage - (Alternative 2)

Question No.17

1.00

Bookmark ☐

In normal operation of an SCR, gate is ____ w.r.t. Cathode.

- ☒ **positive - (Alternative 1)**
- ☐ negative - (Alternative 2)
- ☐ at zero potential - (Alternative 3)
- ☐ None of these - (Alternative 4)

Question No.18

1.00

Bookmark ☐

What is the address space for a CPU having 16 pins reserved for generating an address?

- ☒ **64 kB - (Alternative 1)**
- ☐ 65 bytes - (Alternative 2)
- ☐ 64 bytes - (Alternative 3)
- ☐ None of these - (Alternative 4)

Question No.19

1.00

Bookmark ☐

In a P - Channel MOSFET, the substrate

- ☐ is p type - (Alternative 1)
- ☒ is n type - (Alternative 2)
- ☐ **may be p-type or n-type - (Alternative 3)**
- ☐ None of these - (Alternative 4)

Question No.20

1.00

Bookmark ☐

Which model is most popular for student's small projects?

- ☒ **Waterfall model - (Alternative 1)**
- ☐ Spiral model - (Alternative 2)
- ☒ Prototyping model - (Alternative 4)
- ☐ Quick and fix model - (Alternative 3)

Question No.21

1.00

Bookmark ☐

8086 is designed to operate in _____ modes.

- ☒ **2 - (Alternative 2)**
- ☐ 8 - (Alternative 4)
- ☐ 1 - (Alternative 1)
- ☐ 4 - (Alternative 3)

Question No.22

1.00

Bookmark ☐

If MN/MX bar is low, the 8086 operates in ____ mode.

- ☒ **Maximum - (Alternative 1)**
- ☐ Medium - (Alternative 3)
- ☐ Critical - (Alternative 4)
- ☐ Minimum - (Alternative 2)

Question No.23

1.00

Bookmark ☐

If a segment carries data along with an acknowledgment, this is called

- ☐ Backpacking - (Alternative 1)
- ☒ **Piggybacking - (Alternative 2)**
- ☐ Piggypacking - (Alternative 3)
- ☐ None of these - (Alternative 4)

Question No.24

1.00

Bookmark ☐

The operation of a JFET involves

- ☒ **A flow of majority carriers - (Alternative 2)**
- ☐ Negative resistance - (Alternative 4)
- ☐ A flow of minority carriers - (Alternative 1)
- ☐ Recombination - (Alternative 3)

Question No.25

1.00

Bookmark ☐

The sensation of low or high in the sense of the bass and treble is called

- ☐ Frequency - (Alternative 1)
- ☒ **Pitch - (Alternative 2)**
- ☐ Intensity - (Alternative 3)
- ☐ None of these - (Alternative 4)

Question No.26

1.00

Bookmark ☐

Aliasing refers to

- ☒ **Sampling of signals less than Nyquist rate - (Alternative 1)**

- ☐ Sampling of signals greater than Nyquist rate - (Alternative 2)
- ☐ Sampling of signals at Nyquist rate - (Alternative 3)
- ☐ None of these - (Alternative 4)

Question No.27

1.00

Bookmark ☐

A combinational logic circuit

- ☒ Does not contain flip-flops - (Alternative 3)
- ☐ Contains latches - (Alternative 4)
- ☐ May contain flip-flops - (Alternative 2)
- ☐ Must contain flip-flops - (Alternative 1)

Question No.28

1.00

Bookmark ☐

In electromagnetic waves, polarization means

- ☐ ionization - (Alternative 3)
- ☒ the physical orientation of magnetic field in space - (Alternative 1)
- ☐ the presence of positive and negative ions - (Alternative 4)
- ☐ the physical orientation of electric field in space - (Alternative 2)

Question No.29

1.00

Bookmark ☐

In 8279, the size of built in FIFO RAM is

- ☐ 16 bytes - (Alternative 2)
- ☒ 8 bytes - (Alternative 1)
- ☐ 64 bytes - (Alternative 4)
- ☐ 20 bytes - (Alternative 3)

Question No.30

1.00

Bookmark ☐

Which normal form is free of all update anomalies?

- ☐ 2NF - (Alternative 2)
- ☐ 4NF - (Alternative 4)
- ☐ 1NF - (Alternative 1)
- ☒ 3NF - (Alternative 3)

Question No.31

1.00

Bookmark ☐

TTL uses

- ☐ Multi emitter or multi collector transistor - (Alternative 4)
- ☐ Multi base transistor - (Alternative 3)
- ☐ Multi collector transistor - (Alternative 2)
- ☒ Multi emitter transistor - (Alternative 1)

Question No.32

1.00

Bookmark ☐

Video signals are transmitted by using

- ☐ Either frequency or amplitude modulation - (Alternative 4)
- ☐ Frequency Modulation - (Alternative 1)
- ☐ Pulse Modulation - (Alternative 3)
- ☒ **Amplitude Modulation - (Alternative 2)**

Question No.33

1.00

Bookmark ☐

JFET has main drawback of

- ☐ having high output impedance - (Alternative 2)
- ☒ **having small gain-bandwidth product - (Alternative 4)**
- ☐ having low input impedance - (Alternative 1)
- ☐ being noisy - (Alternative 3)

Question No.34

1.00

Bookmark ☐

The Nyquist theorem specifies the minimum sampling rate to be

- ☐ twice the bandwidth of a signal - (Alternative 3)
- ☐ equal to the highest frequency of a signal - (Alternative 2)
- ☐ equal to the lowest frequency of a signal - (Alternative 1)
- ☒ **twice the highest frequency of a signal - (Alternative 4)**

Question No.35

1.00

Bookmark ☐

Which of the following motor is suitable for servomechanism?

- ☐ A.C. series motor - (Alternative 1)
- ☐ 3 Φ induction motor - (Alternative 4)
- ☒ **2 Φ induction motor - (Alternative 3)**
- ☐ 1 Φ induction motor - (Alternative 2)

Question No.36

1.00

Bookmark ☐

A moving iron frequency meter consists of

- ☐ Two inductive circuits connected in parallel - (Alternative 1)
- ☒ Two non inductive circuits connected in parallel - (Alternative 3)
- ☐ **One inductive and one non inductive circuit connected in parallel - (Alternative 2)**
- ☐ One inductive and one non inductive circuit connected in series - (Alternative 4)

Question No.37

1.00

Bookmark ☐

What are ACID properties of Transactions?

- ☐ Atomicity, Consistency, Inconsistent, Durability - (Alternative 2)
- ☒ **Atomicity, Consistency, Isolation, Durability - (Alternative 3)**
- ☐ Automatically, Concurrency, Isolation, Durability - (Alternative 4)

- ☐ Atomicity, Consistency, Isolation, Database - (Alternative 1)

Question No.38

1.00

Bookmark ☐

_____ is a multifunction PPI device that contains RAM, Timer and I/O ports.

- ☐ 8135 - (Alternative 4)
- ☐ 8125 - (Alternative 1)
- ☒ **8155 - (Alternative 3)**
- ☐ 8055 - (Alternative 2)

Question No.39

1.00

Bookmark ☐

In an N-type semiconductor, the position of the fermi level

- ☐ Is at the centre of the energy gap - (Alternative 2)
- ☒ **Is higher than the centre of the energy gap - (Alternative 3)**
- ☐ Can be anywhere depending upon the doping concentration - (Alternative 4)
- ☐ Is lower than the centre of the energy gap - (Alternative 1)

Question No.40

1.00

Bookmark ☐

The term 'time sharing' has been replaced by

- ☐ Multi-execution system - (Alternative 4)
- ☐ **Multi-tasking system - (Alternative 3)**
- ☒ Multi-processing system - (Alternative 2)
- ☐ Multi-programming system - (Alternative 1)

Question No.41

1.00

Bookmark ☐

Which of the following relay is preferred for grounding fault?

- ☐ IDMT relay - (Alternative 3)
- ☐ **reactance relay - (Alternative 4)**
- ☒ Impedance relay - (Alternative 2)
- ☐ Differential relay - (Alternative 1)

Question No.42

1.00

Bookmark ☐

The main objective of a process control is to control

- ☐ optical parameters - (Alternative 3)
- ☐ electrical parameters - (Alternative 4)
- ☐ mechanical parameters - (Alternative 2)
- ☒ **physical parameters - (Alternative 1)**

Question No.43

1.00

Bookmark ☐

The set of rules and guidelines for exchanging data between computers is called

- ☐ Interconnections - (Alternative 1)
- ☒ **Protocols - (Alternative 3)**
- ☐ Data transmission synchronization - (Alternative 4)
- ☐ Synchronous packages - (Alternative 2)

Question No.44

1.00

Bookmark ☐

The Diffusion current is proportional to

- ☐ applied electric field - (Alternative 1)
- ☐ square of the electric field - (Alternative 2)
- ☐ **concentration gradient of charge carriers - (Alternative 3)**
- ☒ both option 1 and 3 - (Alternative 4)

Question No.45

1.00

Bookmark ☐

Polar coding is a technique in which

- ☐ **1 is transmitted by a positive pulse and 0 is transmitted by negative pulse - (Alternative 1)**
- ☒ 1 is transmitted by a positive pulse and 0 is transmitted by zero volts - (Alternative 2)
- ☐ Both options 1 & 2 - (Alternative 3)
- ☐ None of these - (Alternative 4)

Question No.46

1.00

Bookmark ☐

In Digital Frequency meter, what is the purpose of Schmitt trigger?

- ☐ To convert analog signal into digital signal - (Alternative 1)
- ☒ **To convert sine wave into square wave - (Alternative 2)**
- ☐ To convert digital signal into analog signal - (Alternative 3)
- ☐ None of these - (Alternative 4)

Question No.47

1.00

Bookmark ☐

In DVM, a signal conditioning circuit is used to bring ____ to a suitable limit.

- ☒ resistance and current - (Alternative 3)
- ☐ **voltage - (Alternative 4)**
- ☐ resistance - (Alternative 2)
- ☐ current - (Alternative 1)

Question No.48

1.00

Bookmark ☐

The token bucket allows bursty traffic to be regulated at ____ rate.

- ☐ Zero - (Alternative 3)
- ☐ Minimum - (Alternative 1)
- ☐ **Maximum - (Alternative 2)**
- ☒ Constant - (Alternative 4)

Question No.49

1.00

Bookmark ☐

Which of the following is the programmable interval timer?

- ☒ **8253 - (Alternative 1)**
- ☐ 8279 - (Alternative 4)
- ☐ 8259 - (Alternative 2)
- ☐ 8251 - (Alternative 3)

Question No.50

1.00

Bookmark ☐

Multiple catch blocks

- ☒ **Can be combined into a single catch block - (Alternative 2)**
- ☐ Can never be associated with a single try block - (Alternative 4)
- ☐ Are mandatory for each try block - (Alternative 1)
- ☐ Are not possible for a try block - (Alternative 3)

Question No.51

1.00

Bookmark ☐

Which of the following is not Outer join?

- ☐ Left outer join - (Alternative 1)
- ☐ Right outer join - (Alternative 2)
- ☐ Full outer join - (Alternative 3)
- ☒ **All of these - (Alternative 4)**

Question No.52

1.00

Bookmark ☐

The input transistor (Q1) of a TTL gate acts like

- ☒ OR gate - (Alternative 4)
- ☐ NOR gate - (Alternative 2)
- ☒ **AND gate - (Alternative 3)**
- ☐ NAND gate - (Alternative 1)

Question No.53

1.00

Bookmark ☐

Minimum ____ number of flip-flop are required for a mode-12 ripple counter.

- ☐ 3 - (Alternative 1)
- ☐ 12 - (Alternative 4)
- ☐ 6 - (Alternative 3)
- ☒ **4 - (Alternative 2)**

Question No.54

1.00

Bookmark ☐

What do you call the speed of sound in the study of acoustics?

- ☒ **Tempo - (Alternative 2)**

- ☐ Rhythm - (Alternative 1)
- ☐ Pitch - (Alternative 3)
- ☐ Frequency - (Alternative 4)

Question No.55

1.00

Bookmark ☐

Which waveform plays a crucial role in determining the radiation pattern of the dipole/wire antennas?

- ☐ Voltage - (Alternative 2)
- ☒ **Current - (Alternative 1)**
- ☐ Frequency - (Alternative 3)
- ☐ Phase - (Alternative 4)

Question No.56

1.00

Bookmark ☐

FM demodulation techniques are

- ☐ Envelope detector - (Alternative 1)
- ☒ **PLL detector - (Alternative 2)**
- ☐ Both options 1 & 2 - (Alternative 3)
- ☐ Square law demodulator - (Alternative 4)

Question No.57

1.00

Bookmark ☐

A template class can have

- ☐ At most two data types - (Alternative 3)
- ☐ Only generic type of integers and not characters - (Alternative 4)
- ☒ **More than one generic data type - (Alternative 1)**
- ☐ Only one generic data type - (Alternative 2)

Question No.58

1.00

Bookmark ☐

A fully controlled thyristor bridge drives a DC motor. The system is capable of

- ☐ Motoring in forward direction and braking in reverse direction - (Alternative 3)
- ☐ Only motoring in both directions, no braking - (Alternative 2)
- ☒ Motoring and braking in both directions - (Alternative 1)
- ☐ **Only motoring in forward direction, no braking - (Alternative 4)**

Question No.59

1.00

Bookmark ☐

Employee (Emp_id, Name, Designation, Salary), here Emp_id, Name, Designation and Salary are ____ and Employee is ____.

- ☒ Tuples, Attribute - (Alternative 4)
- ☐ Tuples, Relation - (Alternative 3)
- ☐ **Attributes, Relation - (Alternative 2)**
- ☐ Relations, Attribute - (Alternative 1)

Question No.60	1.00
Bookmark ☐ In a circular waveguide the dominant mode is ☐ TE₀₁ - (Alternative 1) ☒ TE₁₁ - (Alternative 2) ☐ TE₂₀ - (Alternative 3) ☐ TE₂₁ - (Alternative 4)	
Question No.61	1.00
Bookmark ☐ Which is not a part of the Execution Unit (EU)? ☐ ALU - (Alternative 1) ☒ Clock - (Alternative 4) ☐ General purpose registers - (Alternative 3) ☒ Flags - (Alternative 2)	
Question No.62	1.00
Bookmark ☐ Which of the following is not a valid Java access modifier? ☐ public - (Alternative 1) ☐ private - (Alternative 2) ☒ protected - (Alternative 3) ☐ None of these - (Alternative 4)	
Question No.63	1.00
Bookmark ☐ Which of the following operation is used to retrieve certain columns from a table? ☐ Ω (Omega) - (Alternative 2) ☒ π (Pi) - (Alternative 1) ☐ λ (Lambda) - (Alternative 4) ☐ σ (Sigma) - (Alternative 3)	
Question No.64	1.00
Bookmark ☐ How can Encapsulation be achieved? ☐ Using Abstraction - (Alternative 4) ☒ Using only private members - (Alternative 2) ☐ Using Access Specifiers - (Alternative 1) ☐ Using inheritance - (Alternative 3)	
Question No.65	1.00
Bookmark ☐ What is the average case complexity of bubble sort? ☒ O(n²) - (Alternative 4)	

- ☐ $O(n)$ - (Alternative 3)
- ☐ $O(n \log n)$ - (Alternative 1)
- ☐ $O(\log n)$ - (Alternative 2)

Question No.66

1.00

Bookmark ☐

By which name/s an ionospheric propagation is also known as?

- ☐ Sea wave propagation - (Alternative 1)
- ☐ Ground wave propagation - (Alternative 2)
- ☒ **Sky wave propagation - (Alternative 3)**
- ☐ All of these - (Alternative 4)

Question No.67

1.00

Bookmark ☐

For certain very high speed search operation, which of the following memory should be used?

- ☒ **content addressable memory - (Alternative 1)**
- ☐ main memory - (Alternative 2)
- ☐ magnetic memory - (Alternative 3)
- ☐ None of these - (Alternative 4)

Question No.68

1.00

Bookmark ☐

Fifth normal form is designed to cope with ____ dependency.

- ☐ Multivalued - (Alternative 1)
- ☒ **Join - (Alternative 2)**
- ☐ Transitive - (Alternative 3)
- ☐ None of these - (Alternative 4)

Question No.69

1.00

Bookmark ☐

In a superheterodyne receiver

- ☒ **the IF stage has better selectivity than RF stage - (Alternative 1)**
- ☐ the RF stage has better selectivity than IF stage - (Alternative 2)
- ☐ the RF stage has same selectivity than IF stage - (Alternative 3)
- ☐ None of these - (Alternative 4)

Question No.70

1.00

Bookmark ☐

The XS-3 code is also known as

- ☐ Error correcting code - (Alternative 4)
- ☐ Weighted code - (Alternative 2)
- ☐ Cyclic code - (Alternative 1)
- ☒ **Self-complementing code - (Alternative 3)**

Question No.71

1.00

Bookmark ☐

On a class B network, how many subnets are available with a subnet mask of 248?

- ☐ 42 - (Alternative 4)
- ☒ 30 - (Alternative 2)
- ☐ 38 - (Alternative 3)
- ☐ 26 - (Alternative 1)

Question No.72 1.00

Bookmark ☐

Thread is a light weight process

- ☐ where the context switching is low - (Alternative 1)
- ☒ where the context switching is high - (Alternative 2)
- ☐ which speeds up paging - (Alternative 3)
- ☐ None of these - (Alternative 4)

Question No.73 1.00

Bookmark ☐

For handling large microwave power, the best medium is

- ☒ Rectangular waveguide - (Alternative 1)
- ☐ Coaxial line - (Alternative 2)
- ☐ Circular waveguide - (Alternative 4)
- ☐ Stripline - (Alternative 3)

Question No.74 1.00

Bookmark ☐

Which among these tests are to be conducted on wiring installations?

- ☐ Testing of polarity of non linked single pole switches - (Alternative 1)
- ☐ Testing of earth continuity path - (Alternative 2)
- ☐ Testing of earth resistance - (Alternative 3)
- ☒ All of these - (Alternative 4)

Question No.75 1.00

Bookmark ☐

In E-R diagram, generalization is represented by

- ☐ Dashed ellipse - (Alternative 2)
- ☐ Ellipse - (Alternative 1)
- ☐ Rectangle - (Alternative 3)
- ☒ Triangle - (Alternative 4)

Question No.76 1.00

Bookmark ☐

The apparent frequency in Doppler's effect does not depend upon

- ☐ Speed of the source - (Alternative 3)
- ☐ Speed of the observer - (Alternative 1)
- ☒ Distance between the observer and source - (Alternative 2)

- ☐ Frequency of the source - (Alternative 4)

Question No.77

1.00

Bookmark ☐

The ripple factor of a full-wave rectifier circuit compared to that of a half wave rectifier circuit without filter is

- ☐ half of that for a half wave rectifier - (Alternative 1)
- ☒ **less than half of that for a half-wave rectifier circuit - (Alternative 2)**
- ☐ equal to that of a half wave rectifier - (Alternative 3)
- ☐ None of these - (Alternative 4)

Question No.78

1.00

Bookmark ☐

Which of the following is NOT an octal number?

- ☐ 12 - (Alternative 3)
- ☐ 77 - (Alternative 2)
- ☒ **19 - (Alternative 1)**
- ☐ 101 - (Alternative 4)

Question No.79

1.00

Bookmark ☐

In a communication satellite, the telephone channels are assembled in

- ☐ AM - (Alternative 1)
- ☒ **FDM - (Alternative 4)**
- ☐ TDM - (Alternative 3)
- ☐ FM - (Alternative 2)

Question No.80

1.00

Bookmark ☐

If $XY = 0$ then $X \odot Y$ is equal to

- ☐ XY - (Alternative 2)
- ☐ $X' + Y'$ - (Alternative 3)
- ☐ $X + Y$ - (Alternative 1)
- ☒ **$X'Y'$ - (Alternative 4)**

Question No.81

1.00

Bookmark ☐

Which phase is not available in software life cycle?

- ☐ Coding - (Alternative 1)
- ☐ Testing - (Alternative 2)
- ☒ Maintenance - (Alternative 3)
- ☐ **Abstraction - (Alternative 4)**

Question No.82

1.00

Bookmark ☐

Which group of instructions do not affect the flags?

- ☒ Branch instructions - (Alternative 4)
- ☐ **Data transfer instructions - (Alternative 2)**
- ☐ Logical instructions - (Alternative 3)
- ☐ Arithmetic instructions - (Alternative 1)

Question No.83

1.00

Bookmark ☐

What is the syntax of a const member function?

- ☐ **void fun() const {} - (Alternative 1)**
- ☐ void const fun() {} - (Alternative 3)
- ☐ void fun() constant {} - (Alternative 2)
- ☐ const void fun(){} - (Alternative 4)

Question No.84

1.00

Bookmark ☐

A table can have only one

- ☒ **Primary key - (Alternative 1)**
- ☐ Candidate key - (Alternative 3)
- ☐ Composite key - (Alternative 2)
- ☐ Foreign key - (Alternative 4)

Question No.85

1.00

Bookmark ☐

What are implicit and explicit implementations of freelists?

- ☐ explicit implementation is not favored - (Alternative 4)
- ☐ **garbage collection and new or malloc operators respectively - (Alternative 1)**
- ☒ new or malloc and garbage collection respectively - (Alternative 2)
- ☐ implicit implementation is not favored - (Alternative 3)

Question No.86

1.00

Bookmark ☐

Alpha testing is done by

- ☐ Customer - (Alternative 1)
- ☐ Tester - (Alternative 2)
- ☐ Developer - (Alternative 3)
- ☒ **All of these - (Alternative 4)**

Question No.87

1.00

Bookmark ☐

If a transformer core has air gaps then

- ☐ Efficiency is increased - (Alternative 4)
- ☐ **Magnetizing current is greatly increased - (Alternative 3)**
- ☒ Reluctance of magnetic path is decreased - (Alternative 1)
- ☐ Core losses are reduced - (Alternative 2)

Question No.88

1.00

Bookmark ☐

When microwave signals follow the curvature of the earth, this is known as

- ☐ Tropospheric Scatter - (Alternative 3)
- ☐ Ionospheric Reflection - (Alternative 4)
- ☒ **Deducting - (Alternative 2)**
- ☐ Faraday Effect - (Alternative 1)

Question No.89

1.00

Bookmark ☐

RAD stands for

- ☐ Repeated application development - (Alternative 4)
- ☐ Ready application development - (Alternative 3)
- ☒ **Rapid application development - (Alternative 1)**
- ☐ Relative application development - (Alternative 2)

Question No.90

1.00

Bookmark ☐

Device drivers are implemented to interface

- ☐ Character devices - (Alternative 1)
- ☐ Block devices - (Alternative 2)
- ☐ Network devices - (Alternative 3)
- ☒ **All of these - (Alternative 4)**

Question No.91

1.00

Bookmark ☐

Which of the following processor does not supports memory management and protection mechanisms?

- ☐ 80286 - (Alternative 1)
- ☒ **8086 - (Alternative 2)**
- ☐ 80386 - (Alternative 3)
- ☐ 80486 - (Alternative 4)

Question No.92

1.00

Bookmark ☐

3-point starter is used to start

- ☒ Synchronous motor - (Alternative 3)
- ☐ **DC motor - (Alternative 1)**
- ☐ Shaded pole motor - (Alternative 4)
- ☐ AC motor - (Alternative 2)

Question No.93

1.00

Bookmark ☐

Hay bridge is particularly useful for measuring

- ☐ capacitance and dielectric loss - (Alternative 4)
- ☒ **inductive impedance with large phase angle - (Alternative 1)**
- ☐ self inductance - (Alternative 3)
- ☐ mutual inductance - (Alternative 2)

Question No.94

1.00

Bookmark ☐

The principle of Locality of reference justifies the use of

- ☒ **Cache memory - (Alternative 3)**
- ☐ Secondary memory - (Alternative 4)
- ☐ Virtual memory - (Alternative 1)
- ☐ Interrupts - (Alternative 2)

Question No.95

1.00

Bookmark ☐

The complexity of Bubble sort algorithm is

- ☐ $O(n \log n)$ - (Alternative 4)
- ☒ $O(n^2)$ - (Alternative 3)
- ☐ $O(n)$ - (Alternative 1)
- ☐ **$O(\log n)$ - (Alternative 2)**

Question No.96

1.00

Bookmark ☐

The resolving of virtual functions is done at

- ☐ Compile time - (Alternative 1)
- ☐ Writing source code - (Alternative 4)
- ☒ **Runtime - (Alternative 3)**
- ☐ Interpret time - (Alternative 2)

Question No.97

1.00

Bookmark ☐

Which one of the following uses UDP as the transport protocol?

- ☐ SMTP - (Alternative 4)
- ☒ Telnet - (Alternative 2)
- ☐ **DNS - (Alternative 3)**
- ☐ HTTP - (Alternative 1)

Question No.98

1.00

Bookmark ☐

A UJT has

- ☐ two emitter leads and one base lead - (Alternative 3)
- ☐ one emitter lead - (Alternative 2)
- ☐ **one emitter lead and two base leads - (Alternative 4)**
- ☐ two base leads - (Alternative 1)

Question No.99

1.00

Bookmark ☐

In Common Emitter amplifier, the unbypassed emitter resistance provides

- ☐ positive current feedback - (Alternative 4)
- ☒ voltage shunt feedback - (Alternative 1)
- ☐ negative voltage feedback - (Alternative 3)
- ☐ **current series feedback - (Alternative 2)**

Question No.100

1.00

Bookmark ☐

Shift instructions move binary data to the ____ by shifting them within the register or memory location.

- ☐ Right - (Alternative 2)
- ☒ **Both left & right - (Alternative 3)**
- ☐ bottom - (Alternative 4)
- ☐ Left - (Alternative 1)