

Date: 15-Jun-23

(M) (T) (W) (Y) (F) (S)

MOCK EXAM 2023

GSA (GK-1)

LMS ID - 27162

BATCH - 326

PART II (SECTION - A)

Q2 (i) **DIFFERENCE BETWEEN RAM AND ROM :**

RAM :- (RANDOM ACCESS MEMORY)

It is the part of Internal Memory, It received its name from the action. RAM have directly access to memory cell.

It has temporary storage means that data only remain when the machine is running when the machine is turned off the data is lost. The processor can easily read and write in RAM faster than any memory storage in computer. It has volatile memory and made up of small chip.

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PART II (SECTION - A)

2 (i) DIFFERENCE BETWEEN RAM AND ROM :

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ROM: (READ-ONLY-MEMORY)

Date:

ROM contains hard wired

instruction that computer

follow when start up

the storage and data of ROM

is permanent and non volatile

memory.

ROM can be read by computer

but it can't be changed.

Q2 (iv) Byte :

It stores information and

provide patterns to represent

alphabets in lower and

upper cases, numeric digit.

It can be interpreted by

the pattern of number

between 0 - 250.

8 bits = 1 bytes

Nibble :

Nibble originate from its

representing 'half a byte'

or a four bit aggregation

Bits is very important in

mini computers called

microprocessors.

4 bits = 1 Nibble

Date: _____

Q2 (ii) NETWORK :

A group of two or more computers share resources e.g hardware/software etc.

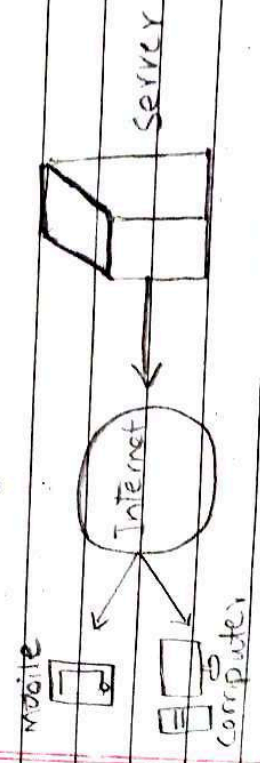
Classification of Network

Computer networks are classified in LAN, MAN and WAN. Networks are differentiated on the basis of their geographical span.

INTERNET :-

It is the computer based global information system.

It is composed of interconnected networks. Internet made it easy for people all over the world to communicate with one another easily and effectively.



Date

(ii) a GPS (Global Positioning System)

It is a navigation system

to determine exact location (2D+3D)

anywhere in the world.

This system provide capabilities to military, civil user around the world.

It is the US-based system of satellite.

It consist of three segments

- Space segment
- Control segment
- User segment.

(iii) b GIS (Geographic Information System)

It is a Computer system for capturing, analyzing, storing geographically referenced information which is data identification according to the location.

It plays an important role in an integrating technology.



Date: _____

(V) Natural Satellite and Artificial Satellite:

Satellite :

A satellite is any object revolves around earth (planet) in a circular path.

Natural Satellite :

Which revolves naturally around the earth
e.g. moon

Artificial Satellite :

These are the man-made satellites
e.g. Geostationary, Polar satellite.

Date: _____

OPTICAL Fiber

Q2#6)

Optics :- Study of property of light and its propagation.

Optical Fiber

These are the strands of glass which are used to transmit light signals from one point to another in telecommunication.

Structure:

Optical fibre has two main parts

1. Core :-

It is the central part having high density. It is generally made up of glass. Light propagates mainly along the core of the fibre. Core has high refractive index.

2. Cladding :-

The ^{cladding} core is surrounded by a layer of material called Cladding.

It is made of glass or plastic. It has low density and low refractive index.

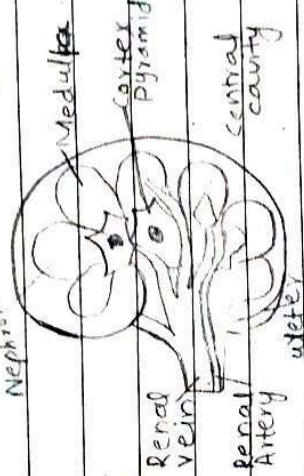
Date:

KIDNEY

Q#2(d)

→ Working of kidney :-Kidney :-

Kidneys are dark-red bean shaped organ about 10cm long, each weighing about 270 gram.

Diagram:Components :-

Kidney is divided into two regions: renal cortex (outer region) and renal medulla (inner region).

Each kidney is composed of numerous microscopic coiled tubules called nephrons or renal tubules.

Function :-

The kidney and urinary tract filter can eliminate waste substances from blood.

- Kidney regulate blood pressure, maintain balance of water and help to regulate acid-base balance.

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Question # 5 (c)

CERAMICS :

It is a non-metallic solid made up of clay.

It is shaped by heating to high temperature.

E.g. Material like bricks, plates etc.

Application:-

Ceramics are used in different products / areas :

Automotive Industry:

It is used in automotive industry
e.g: converter, Spark plugs, filters.

Building and construction:

Manufacturers use ceramics to make pipes, tiles etc.

Electronics: Computer parts like insulator, capacitor and superconductors are made.

Medical field :

It is used in medical field
e.g: Dental and bone filling.

SEMI-CONDUCTOR :

Semi-Conductor partly conduct the current.

e.g: Silicon, Germanium



Date: _____

Types :-**Intrinsic:**

A semi-conductor in its pure form is called intrinsic

Extrinsic

The process of addition of impurity make the semi-conductor Extrinsic.

Question # 5 (b)

Polio:

It is an highly infectious viral disease. It mainly affects young childrens. Afghanistan and Pakistan never stopped transmission of polio.

Symptom

- paralysis
- fever
- fatigue
- headache
- Vomiting

Prevention

Immunization with polio vaccine is the best way to prevent polio.

Vaccine :
There are two types of Polio vaccine

1. IPV (Inactivated polio vaccine)
2. OPV (Oral Polio vaccine)

Question # 5 (a)

Electromagnetic Radiation

It is a form of energy or

It is a stream of photons travelling with the speed of light in vacuum or air.

Electromagnetic waves

waves which require no medium for their propagation are called electromagnetic waves.

Types :-

Radio Wave

Radio waves have least energy and frequency and highest wavelength under Radar.

They are often use to transmit data use in satellites.

Date:

2. Microwaves

They are shorter than radio waves with wavelength. are useful in communication because they transmit information.

3. Infra-red

It is also used to send signals from one place to another. It is also used in diagnosing tumour.

4. Visible light

It is also called white light or optical light wavelength 350-700 nm.

5. Ultraviolet

U.V radiation have shortest wavelength after visible light. These are found in sunlight.

6. X-rays

Energy of X-ray is less than gamma and more than Ultra-Violet. X-rays damage cell and cause cancer.

7. Gamma Rays

Gamma rays have shortest wavelength and high frequency & energy. They can result in nuclear reaction.

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Q5 # 6

LED :

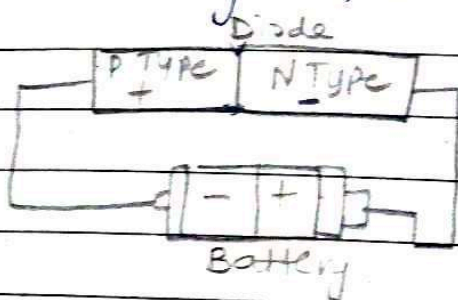
Light emitting diode, is energy efficient.

e.g. LED lights.

It consist of a chip of semi conducting material.

It has P-type and N-type Junctions.

They are environment friendly
have long life time



Date:

SECTION # B

Q # 7(a)

The largest number is 23.

Q7 # (b)

The relation between
D and C is Uncle - Son

Q7 # (c)

7, 12, 19, 28, 39, 52