# **Elements of Remote Sensing**

### Question No. 01

### Pick up the correct statement from the following:

- (A) Topology describes the geometric characteristic of objects which do not change under transformations and are independent of any coordinate system
- (B) Topological characteristics of an object are independent of scale measurement
- (C) The three elements of topology are adjacency, containment, and connectivity
- (D) All of these

Answer: Option D

### **Question No. 02**

# Pick up the correct statement from the following:

- (A) In remote sensing technique, the observation place, is called a platform
- (B) Platforms may be either stationary or mobile
- (C) Spatial resolution of the imaging system becomes poorer with increase of platform height
- (D) All of these

Answer: Option D

# **Question No. 03**

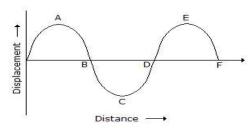
# Formation of snow occurs if the cloud temperature is

- (A) Just above the freezing point
- (B) At the freezing point
- (C) Below the freezing point
- (D) None of these

Answer: Option C

#### **Question No. 04**

# In the given figure the phase of



- (A) crest A is  $\pi/2$
- (B) B crossing is  $\pi$
- (C) Trough C is  $3\pi/2$
- (D) All of these

Answer: Option D

### **Question No. 05**

Coherence of two electromagnetic waves takes place if their phase difference is:

- (A) Constant in time
- (B) Constant in space
- (C) Constant in time and space
- (D) None of these

# Question No. 06

### Pick up the correct statement from the following:

- (A) Indian space effort started in 1962 with the establishment of a rocket
- (B) Development of space (DOS) was established by the Government of India in 1972
- (C) Indian Space Research Organisation (ISRO) is responsible for the space technology and its application to various activities
- (D) All of these Answer: Option D

# **Question No. 07**

# Pick up the correct statement from the following:

- (A) For the same feature, the photograph taken from the satellite vertically above the aircraft, the height displacement is lesser than the aerial photograph
- (B) The scale of the aerial photograph depends upon the scale of the topography
- (C) The feature at the principal point has no height displacement
- (D) All of the above

Answer: Option D

# **Question No. 08**

# The coherence length over which there is a strong relationship between amplitudes is;

- (A) Directly proportional to the bandwidth
- (B) Inversely proportional to the bandwidth
- (C) The square of the bandwidth
- (D) None of these

Answer: Option B

### **Question No. 09**

# The reflectance from a surface is called specular reflection if it follows:

- (A) Snell's law
- (B) Lambert's cosine law
- (C) Planktan's law
- (D) All of these

Answer: Option A

# **Question No. 10**

# Pick up the correct statement from the following:

(A) A graphical representation of spectral reflectance verses the various growth stages of a crop, depicts a phonologic pattern

- (B) The changes in the polarisation of the radiation reflected or emitted by an object, is known as polarisation variation
- (C) The degree of polarisation is a characteristic of the object which helps in the identification of the object
- (D) All of these

# **Question No. 11**

Repetitive observations of the same area at equal interval of time are useful to monitor the dynamic phenomena:

- (A) Cloud evolution
- (B) Vegetative cover
- (C) Snow cover
- (D) All of these

Answer: Option D

### **Question No. 12**

Which one of the following parameters is considered to determine the reflectance of a vegetation canopy?

- (A) Solar zenith angle
- (B) Azimuth angle
- (C) Look angle
- (D) All of these

Answer: Option D

# **Question No. 13**

# A perfectly black body:

- (A) Is a diffuse emitter
- (B) Absorbs all the radiations of every wave lengths
- (C) Emits power of every wave length
- (D) All the above

Answer: Option D

#### **Question No. 14**

If  $\theta$  is the angle of scan measured from the nadir, the ground distance swept by the sensor IFOV is proportional to:

- (A)  $\sin^2\theta$
- (B)  $\cos^2\theta$
- (C)  $sec^2\theta$
- (D)  $tan^2\theta$

Answer: Option C

# **Question No. 15**

# Which one the following is a correct statement?

(A) The vertical section of the soil extending into the parent material, is called profile

- (B) The layers of the soil parallel to the earth surface are called horizons
- (C) The transitional layer between two adjoining horizons is called boundary
- (D) All of these

#### Question No. 16

# In case of reflection and refraction of electromagnetic radiation,

- (A) Angle of incidence = angle of refraction
- (B) Angle of incidence = angle of reflection
- (C) Angle of refraction = sum of the angles of incidence and refraction
- (D) All the above

Answer: Option B

# **Question No. 17**

# Pick up the correct statement from the following:

- (A) The minimum frequency of light for which no electrons are emitted, is called threshold frequency
- (B) Polarising angle of glass is 57.5°
- (C) At the polarising angle, the reflected and refracted rays are orthogonal
- (D) All the above

Answer: Option D

# **Question No. 18**

# Which one of the following factors does not affect the scale of the air photographs?

- (A) Focal length
- (B) Flying height
- (C) Ground elevation
- (D) None of these

Answer: Option D

# **Question No. 19**

# Which one of the following statements regarding remote sensing is correct?

- (A) The interaction of the electromagnetic radiation with the target
- (B) The emission of electromagnetic radiation from the target
- (C) Both (a) and (b)
- (D) Neither (a) nor (b)

Answer: Option C

#### Question No. 20

# The optical property of a water body depends on:

- (A) Absorption by the dissolved material
- (B) Absorption by the suspended particulate matter
- (C) Scattering by the suspended particulate matter
- (D) All of these

#### Pick up the correct statement from the following:

- (A) Frequency is the number of wave crests passing a fixed point in one second
- (B) Frequency of a wave is measured in Hertz (Hz)
- (C) Amplitude of a wave is the height of its crust from the mid-point
- (D) All of these Answer: Option D

#### **Question No. 22**

# The object of photo-interpretation is:

- (A) Identification
- (B) Recognition of objects
- (C) Judging the significance of objects
- (D) All of these Answer: Option D

#### Question No. 23

### Pick up the correct statement from the following:

- (A) Phytoplankton contains photosynthetically active pigment
- (B) An increase of phytoplankton increases the back scattering in the green region
- (C) An increase of phytoplankton absorbs the bule region rapidly
- (D) An increase of phytoplankton decreases the back scattering in the green region

Answer: Option D

### **Question No. 24**

# Which one of the following statements is correct regarding the GPS satellites?

- (A) The nominal altitude is about 20,200 km
- (B) The inclination of axis satellite is 55°
- (C) The satellite transmits two L band signals ( $L_1$  with 1575.42 MHz and  $L_2$  with 1276.6 MHz)
- (D) All of these Answer: Option D

# **Question No. 25**

# Which one of the following statements is correct?

- (A) During the day, earth reflects solar radiation
- (B) During the day, earth reflects both solar radiations the emission from its surface
- (C) During the night, earth emits radiation from its surface
- (D) All of these Answer: Option D

# **Question No. 26**

### A reduction of nitrogen nutrient in plants:

- (A) Affects leaf colour
- (B) Reduces pigment concentration
- (C) Increase the visible reflectivity

(D) All of these Answer: Option D

#### **Question No. 27**

Remote sensing techniques make use of the properties of \_\_\_\_\_ emitted, reflected or diffracted by the sensed objects:

- (A) Electric waves
- (B) Sound waves
- (C) Electromagnetic waves
- (D) Wind waves Answer: Option C

### **Question No. 28**

Which one of the following statement is incorrect regarding the electromagnetic radiation?

- (A) These are produced by the motion of electric charge
- (B) The oscillation of charged particles sets up changing electric fields
- (C) The changing electric fields induce the changing magnetic fields in the surrounding medium
- (D) None of these Answer: Option D

#### **Question No. 29**

The altitudinal distance of a geostationary satellite from the earth is about:

- (A) 26,000 km
- (B) 30,000 km
- (C) 36,000 km
- (D) 44,000 km

Answer: Option C

#### **Question No. 30**

The ratio of the total solar radiant energy returned by a planetary body to the total radiant energy incident on the body, the called:

- (A) Reflectance
- (B) Reflectance factor
- (C) Albedo
- (D) None of these

Answer: Option C

#### Question No. 31

# Due to scan geometry of a satellite sensor:

- (A) The off-nadir resolution is degraded
- (B) The ground distance swept by the senor, IFOV is proportional to  $\sec^2\theta$ , where  $\theta$  is the angle of scan measured from the nadir
- (C) The details towards the edge of the scan get compressed
- (D) All of these

#### Which one of the following statement is correct?

- (A) Radiant energy expressed in Joules, is the energy associated with electromagnetic radiation
- (B) The rate of transfer of radiant energy is called flux and is expressed in watts
- (C) The radiant energy which falls upon a surface is termed as irradiance
- (D) All of these

Answer: Option D

#### **Question No. 33**

### Which one of the following parameters is accurate for DGPS?

- (A) Positional accuracies ~ 1 2 m if rover is less than 1-2 km from the reference station
- (B) Positional accuracies ~ 2 5m if rover is less than 2-5 fm from the reference station
- (C) Positional accuracies ~ 5 10 m if rover is less than 5-10 km from reference station
- (D) Positional accuracies ~ 5 10 m if rover is less than 25 km

Answer: Option A

### **Question No. 34**

### Pick up the correct statement from the following:

- (A) The surface defined by the locus of points having same phase, is called a wave front
- (B) The wave whose surface of constant phase are parallel planes, is known as a plane wave
- (C) The relative phase difference between the waves is important and not the absolute phase of a point on the wave
- (D) All of these

Answer: Option D

#### **Question No. 35**

#### Which one of the following statements is correct?

- (A)  $\pi$  radians equal to 180°
- (B) The cone subtended by an area on the sphere at the centre, is called the solid angle
- (C) The solid angle is equal to the ratio of the area on the sphere and the square of the radius of the sphere
- (D) All of these

Answer: Option D

# **Question No. 36**

# Crop Acreage and Production Estimation (CAPE) was funded and taken up in 1983 by:

- (A) USA
- (B) European Union
- (C) Russia
- (D) India

Answer: Option D

# **Question No. 37**

'A time varying electric field produces a magnetic field.' This phenomenon is called:

(A) Hertz's law

- (B) Ampere Maxwell's law
- (C) Faraday's law
- (D) Kirchoff's law

#### **Question No. 38**

The changes in the reflectivity/emissivity with time, is called:

- (A) Spectral variation
- (B) Spatial variation
- (C) Temporal variation
- (D) None of these

Answer: Option C

# **Question No. 39**

Which one of the following statements is correct?

- (A) Snow albedo falls at all wave length with the increase of grain size
- (B) The effect of grain size on reflection is maximum in the near-IR region
- (C) The effect of grain size on reflection is low in the visible region of the spectrum
- (D) All of these

Answer: Option D

#### Question No. 40

Due to perturbation of the orbit, satellite orbit parameters are frequently updated on measurements carried out by its

- (A) Six ground stations
- (B) Five ground stations
- (C) Four ground stations
- (D) Three ground stations

Answer: Option B

### **Question No. 41**

Which one of the following helps to identify the objects on the earth surface?

- (A) Atmospheric window
- (B) Signature
- (C) Radiometric error
- (D) None of these

Answer: Option B

# **Question No. 42**

Pick up the correct statement from the following:

- (A) Phase of a wave is expressed as a fraction of a period with respect to a reference
- (B) Phase is usually specified by angular measure with one period being 360°
- (C) The reference for finding the phase of a wave is taken from the previous passage through zero from the negative to the positive direction
- (D) All of these

#### Question No. 43

The reflection of solar energy is characterised by the water content in the leaf, in the reflective optical infrared:

(A) Visible (0.4 - 0.7 μm) region

(B) Near-IR (0.7 - 1.3 μm) region

(C) Short wave-IR (1.3 - 2.7 μm) region

(D) None of these

Answer: Option C

# **Question No. 44**

The interaction of the electromagnetic radiation produced with a specific wave length to illuminate a target on the terrain for studying its scattered radiance, is called:

(A) Passive remote sensing

(B) Active remote sensing

(C) Neutral remote sensing

(D) None of these

Answer: Option B

### **Question No. 45**

For interpolation of satellite data used for monitoring dynamic changes that occurs on the earth surface, the most suitable orbit for the satellite is:

(A) Circular orbit

(B) Sun-synchronous orbit

(C) Near polar orbit

(D) None of these

Answer: Option B

# **Question No. 46**

# **Electromagnetic spectrum contains:**

- (A) Gamma rays (wave length  $< 10^{-10}$  m)
- (B) Ultraviolet rays (wave length < 10<sup>-6</sup> m)
- (C) Infrared rays (wave length  $< 10^{-4}$  m)
- (D) All of these

Answer: Option D

# **Question No. 47**

Which one of the following quantities forms the basis of radiometry?

- (A) Radiant energy (Q)
- (B) Radiant flux  $(\varphi)$
- (C) Radiant intensity (I)
- (D) All of these

According to the Snell's law if an electromagnetic wave is incident in a medium (refractive index  $n_1$ ) on another medium (refractive index  $m_2$ );

(A) The angle of incidence is equal to the angle of refraction

(B) The angle of refraction ( $\theta r$ ) is given by  $\sin \theta_2 = (n_1/n_2) \sin \theta_i$ 

(C) Both (a) and (b)

(D) Neither (a) nor (b)

Answer: Option B

# **Question No. 49**

The refractive index of the ocean water:

(A) Increases with salinity

(B) Increases with temperature

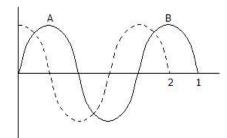
(C) Decreases with salinity

(D) Decreases with temperature

Answer: Option A

### Question No. 50

The phase difference of the waves 1 and 2 at A in the given figure is:



- (A)  $\pi/4$
- (B)  $\pi/2$
- (C) π
- (D)  $3\pi/2$

Answer: Option B

#### Question No. 51

Pick up the correct definition from the following with response to GIS.

- (A) Common boundary between two areas of a locality is known as adjacency
- (B) The area features which are wholly contained within another area feature, is known so containment
- (C) The geometric property which describes the linkage between line features is defined as connectivity
- (D) All of these

Answer: Option D

### **Question No. 52**

The various stages occuring in GPS system are described below:

1. Generation of an output to the user

- 2. Detection of the GPS signals
- 3. Processing the data in the built-in-computer
- 4. Decoding the GPS signal.

### The correct sequence of the stages is:

- (A) 1, 2, 3, 4
- (B) 2, 3, 4, 1
- (C) 2, 4, 3, 1
- (D) 3, 1, 2, 4

Answer: Option C

# **Question No. 53**

#### The normal altitude of GPS satellite is about

- (A) 16,200 km
- (B) 20,200 km
- (C) 24,400 km
- (D) 36,100 km

Answer: Option B

### Question No. 54

#### Geodimeter is based on:

- (A) Propagation of modulated light waves
- (B) Propagation of infrared radiation
- (C) The visible light as carrier with frequency of the order of 5  $\times$  10<sup>14</sup> Hz
- (D) High frequency radio waves

Answer: Option A

#### **Question No. 55**

### The code based GPS receivers are generally used for:

- (A) Vehicle tracking
- (B) Land navigation
- (C) Trans movement
- (D) All of these

Answer: Option D

# Question No. 56

# Pick up the correct statement from the following:

- (A) The refractive index of a medium varies according to the wavelength of the radiation,
- (B) The variation of the refractive index with wave length, is called dispersion,
- (C) The splitting of colours of white light by passing through a prism is caused due to dispersion
- (D) All of these

Answer: Option D

#### Question No. 57

# While propagating through homogeneous, isotropic media,

(A) Directions of both the fields are orthogonal

- (B) Both the fields are at right angles to the direction of propagation
- (C) Both (a) and (b)
- (D) Neither (a) nor (b)

#### **Question No. 58**

The arrangement of terrain features which provides attributes: the shape, size and texture of objects, is called:

- (A) Spectral variation
- (B) Spatial variation
- (C) Temporal variation
- (D) None of these

Answer: Option B

# **Question No. 59**

Which one of the following errors is produced by platform characteristics of the sensor?

- (A) Altitude variation
- (B) Altitude
- (C) Orbit drift
- (D) All of these

Answer: Option D

# **Question No. 60**

Pick up the correct statement from the following:

- (A) When the electric field oscillates in the direction of the electric vector, a plane polarised wave is formed
- (B) When the electric vector is in the plane of incidence, vertical polarisation is formed
- (C) When the electric vector is at right angles to the plane of incidence, horizontal polarization wave is formed
- (D) All of these

Answer: Option D

### **Question No. 61**

# Leaf reflectance depends primarily on:

- (A) The pigments
- (B) Internal cell structure
- (C) Equivalent water content
- (D) All of these

Answer: Option D

# **Question No. 62**

If flying height of a spacecraft is H, the length of air base is B and the parallax difference between two points is dp, then the difference in height

- (A) h = dp/(B/H)
- (B) h = (B/H) dp

- (C) h = dp/(H/B)
- (D) h = (H/B) dp

### **Question No. 63**

#### Critical angle of electromagnetic radiation takes place if

- (A) Angle of incidence is equal to angle of refraction
- (B) Angle of incidence is greater than the angle of refraction
- (C) Angle of incidence is equal to 90°
- (D) Angle of refraction is equal to 90°

Answer: Option D

# **Question No. 64**

# Earth observations from a satellite platform provide:

- (A) Synoptic view of a large area
- (B) Constant solar zenith angles and similar illumination conditions
- (C) Repetitive observations of the same area with intervals of a few minutes to a few weeks
- (D) All of these

Answer: Option D

### **Question No. 65**

DGPS is based on the concept that bias errors in the position of locations in a given local area, are same if their distances are within

- (A) 25 km
- (B) 50 km
- (C) 75 km
- (D) 100 km

Answer: Option D

# **Question No. 66**

# **Electromagnetic radiation:**

- (A) Produces a time varying magnetic field and vice versa
- (B) Once generated, remains self-propagating
- (C) Is capable to travel across space
- (D) All of these

Answer: Option D

#### Question No. 67

# Which one of the following residual biases involves the GPS accuracy?

- (A) Satellite dependent biases due to uncertainty in the orbital parameters of the satellite
- (B) Receiver-dependent biases due to clock stability with line
- (C) Signal propagation biases due to the sphere and troposphere propagation
- (D) All the above

'A' and 'B' are two towers of equal height diametrically opposite on either side of the nadir point, at 3 km and 5 km distances. Which one of the following statements is correct?

- (A) Height displacement of A will be less than that of B
- (B) Height displacement of B will be less than that of A
- (C) Height displacement of A and B is equal
- (D) Height displacement of A and B will be towards each other

Answer: Option A

#### Question No. 69

The entire range of the electromagnetic spectrum spans a large spectrum of wave lengths varying from:

- (A)  $10^{-10}$  to  $10^6$  m
- (B)  $10^{-8}$  to  $10^{6}$  m
- (C)  $10^{-10}$  to  $10^{10}$  m
- (D)  $10^{-8}$  to  $10^{8}$  m

Answer: Option A

### **Question No. 70**

Consider the following statements regarding the satellite imaging:

- 1. The satellite orbit is fixed in the inertial space
- 2. During successive across-track imaging, the earth rotates beneath the sensor
- 3. The satellite images a skewed area

Which one of the following statements is/are correct?

- (A) 1, 2, 3
- (B) 1, 3
- (C) 2, 3
- (D) 1, 2

Answer: Option A

# Question No. 71

The GPS space segment consists of Navigation Satellite Timing and Ranging whose number is:

- (A) 8
- (B) 12
- (C) 16
- (D) 24

Answer: Option D

# **Question No. 72**

Pick up the important characteristic of a target which facilitates its identification from the following:

- (A) Spectral variation
- (B) Spatial variation
- (C) Temporal variation
- (D) All of these

#### Question No. 73

Rayleigh's criterion for a rough surface is: (where letters carry their usual meanings).

- (A)  $h > \lambda/\Delta \cos \theta$
- (B)  $h = \lambda/8 \cos \theta$
- (C)  $h > \lambda/8 \cos \theta$
- (D)  $h < \lambda/8 \cos \theta$

Answer: Option C

# **Question No. 74**

The value of energy quantum for radiation of any frequency is proportional to:

- (A) The frequency
- (B) The reciprocal of the energy
- (C) The square of the frequency
- (D) The square root of the frequency

Answer: Option A

# **Question No. 75**

Which one of the following statements is correct?

- (A) The function of an information system is to improve one's ability to make decisions
- (B) The information system is the chain of operations
- (C) A map is a collection of stored, analysed data, its stored information is suitability used in making decisions
- (D) All the above

Answer: Option D

### **Question No. 76**

The infrared portion of EMR lies between

- (A) 0.4 0.7 μm
- (B) 0.5 mm to 1 μm
- (C) 0.7 1.3 μm
- (D) 0.7 to 14 μm

Answer: Option D

### **Question No. 77**

Which one of the following geometric errors of satellite sensors is random?

- (A) Scan skew
- (B) Panoramic distortion
- (C) Earth rotation
- (D) Altitude variation

Answer: Option D

### **Question No. 78**

Pick up the correct statement from the following:

- (A) The first man-made satellite, Sputnik-I' was launched on 4th October, 1957
- (B) The United State's Explorer 6 transmitted the first picture of the earth in August 1959
- (C) Television Infrared Observation Satellite (TIROS) designed for meteorological observations, started systematic earth observations from space from 1, April, 1960
- (D) All of these Answer: Option D

Which one of the following frequency regions is a part of sun's radiation?

- (A) Ultraviolet frequency region
- (B) Infrared frequency region
- (C) Radio frequency region
- (D) All of these Answer: Option D

# **Question No. 80**

The spectral region of the electromagnetic radiation which passes through the atmosphere without much attenuation is known as:

- (A) Ozone hole
- (B) Atmospheric window
- (C) Ozone window
- (D) Black hole

Answer: Option B

# Question No. 81

Which one of the following relationship between the wave length ( $\lambda$ ), and frequency and the speed (C) of the electromagnetic wave is correct?

- (A)  $C = v + \lambda$
- (B)  $C = \lambda/\nu$
- (C)  $C = v\lambda$
- (D)  $C = 1/\lambda v$

Answer: Option C

# **Question No. 82**

In GPS, receivers used are;

- (A) Electronic clocks
- (B) Atomic clocks
- (C) Quartz clocks
- (D) Mechanical clocks

Answer: Option C

# **Question No. 83**

For C band Synthetic Aperture Radar (SAR) with Doppler band width of 1300 Hz, the coherence length loch is:

(A) 130 km

- (B) 230 km
- (C) 250 km
- (D) 500 km

# **Question No. 84**

Which one of the following attributes is not associated with digital maps

- (A) Colour
- (B) Symbology
- (C) Legends
- (D) South arrow

Answer: Option D

# **Question No. 85**

The instruments which provide electromagnetic radiation of specified wave length or a band of wave lengths to illuminate the earth surface are called:

- (A) Sensors
- (B) Passive sensors
- (C) Active sensors
- (D) None of these

Answer: Option C

# **Question No. 86**

The most widely used antenna in GPS is

- (A) Parabolic antenna
- (B) Microstrip antenna
- (C) Horn antenna
- (D) Slotted antenna

Answer: Option B

# **Question No. 87**

Orbital radius of GPS satellites is approximately:

- (A) 15,200 km
- (B) 26,600 km
- (C) 18,400 km
- (D) 36,000 km

Answer: Option B

# **Question No. 88**

If electric permittivity and magnetic permeability of the medium are respectively ' $\epsilon$ ' and ' $\mu$ ', then the velocity ( $C_m$ ) of the electromagnetic wave in the medium is given by:

- (A)  $C_m = 1/\varepsilon\mu$
- (B)  $C_m = 1/\sqrt{8} \mu$
- (C)  $C_m = 5/\sqrt{\varepsilon \mu}$
- (D) None of these

#### **Question No. 89**

The part radiation due to scattered/diffused radiation entering the field of view of a remote sensor other than that from the required target,

- (A) Reduces the contrast of the image and also its sharpness
- (B) Increases the contrast of the image but reduces the sharpness
- (C) Increases both the contrast and sharpness
- (D) Reduces the contrast but increases the sharpness

Answer: Option A

# **Question No. 90**

### Pick up the correct statement from the following

- (A) The ratio of the up flux and down flux just above the snow surface, is called albedo
- (B) Spectral albedo of snow is calculated for the semi-infinite snow thickness
- (C) Water equivalent height of snow is the height of water column obtained by melting snow
- (D) All of these Answer: Option D

# Question No. 91

Spatial variation in horizontal and vertical directions is caused due to:

- (A) Physical weathering of rocks
- (B) Chemical weathering of rocks
- (C) Biological weathering of rocks
- (D) All of these

Answer: Option D

### **Question No. 92**

The basic requirement of any sensor system is:

- (A) Radiometric resolution
- (B) Spatial resolution
- (C) Spectral resolution
- (D) All of these

Answer: Option D

# **Question No. 93**

The remote sensing techniques applied for the earth's surface features, is generally confined to the following wave lengths:

- (A) 0.4 to 1.3, 1.5 to 1.8, 2.2 to 2.6  $\mu m$
- (B) 2.2 to 2.6, 3.0 to 3.6, 4.2 to 5.0  $\mu$ m
- (C) 4.2 to 5.0, 7.0 to 15.0  $\mu$ m and 1 cm to 30 cm
- (D) All of these

#### Pick up the correct statement from the following:

- (A) Permeability is a measure of conducting the magnetic lines of force in the material
- (B) Permeability is a measure of the extent to which magnetic lines of force can penetrate a medium
- (C) Permeability is expressed as the ratio of the magnetic flux density (B) to the field strength of the magnetizing field
- (D) All of these Answer: Option D

# **Question No. 95**

"An Electromagnetic wave falls on to a boundary between two losses less homogeneous media with different refractive indices, a part of the wave is reflected back to the incident medium and the rest is transmitted on to the second media". This phenomenon is known as:

- (A) Fresnel reflection
- (B) Fresnel refraction
- (C) Snell's law
- (D) None of these

Answer: Option A

### **Question No. 96**

# A passive sensor uses:

- (A) Sun as the source of energy
- (B) Flash light as a source of energy
- (C) Its own source of energy
- (D) None of these

Answer: Option A

#### **Question No. 97**

Who coined the term, 'Remote sensing'.

- (A) Evelyn L. Pruitt, a geographer
- (B) Gaspard Felix Tournachon, a French scientist
- (C) Wilbur Wright, an Italian scientist
- (D) None of these

Answer: Option A

#### **Question No. 98**

# The maximum sun's radiation occurs around:

- (A) 0.4 µm wave length
- (B) 0.55 μ wave length
- (C) 0.7 μ wave length
- (D) None of these