

Elements of Remote Sensing

Question No. 1 The infrared portion of EMR lies between

- (A) 0.4 –
- (B) 0.5 mm to 1
- (C) 0.7 –
- (D)

Answer: Option D

Question No. 2 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. 3 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

Question No. 4 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. 5 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. 6 Which on speed

(C) of the electromagnetic wave is correct?

- (A) $C = v$
- (B) $C = \lambda v$

(C) $C = v$

(D) $C = 1/$

Answer: Option C

Question No. 7 In GPS, receivers used are;

(A) Electronic clocks

(B) Atomic clocks

(C) Quartz clocks

(D) Mechanical clocks

Answer: Option C

Question No. 8 For C band Synthetic Aperture Radar (SAR) with Doppler band width of 1300 Hz, the coherence length is:

(A) 130 km

(B) 230 km

(C) 250 km

(D) 500 km

Answer: Option B

Question No. 9 Which one of the following attributes is not associated with digital maps

(A) Colour

(B) Symbolology

(C) Legends

(D) South arrow

Answer: Option D

Question No. 10 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. 11 The most widely used antenna in GPS is

(A) Parabolic antenna

(B) Microstrip antenna

(C) Horn antenna

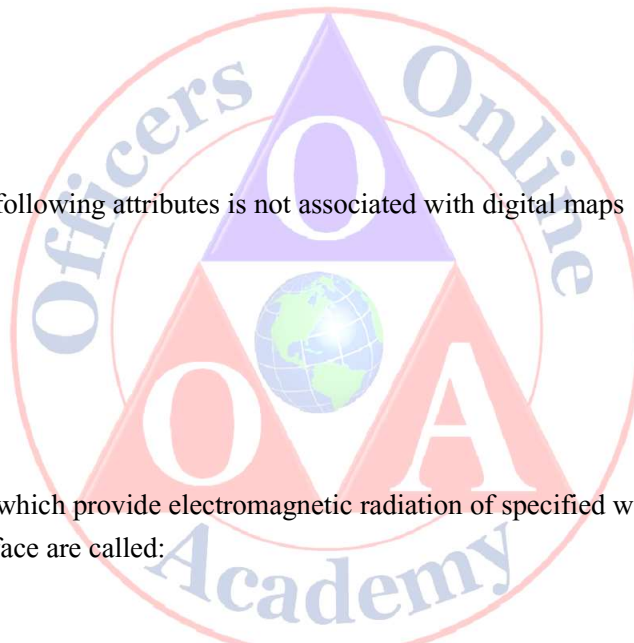
(D) Slotted antenna

Answer: Option B

Question No. 12 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. 13 If electric permittivity and magnetic permeability of the medium are respectively ϵ and μ , then the velocity (C_m) of the electromagnetic wave in the medium is given by:

(A) $C_m = 1/\sqrt{\epsilon\mu}$

(B) $C_m = \sqrt{\epsilon\mu}$

(C) $C_m = \epsilon\mu$

(D) None of these

Answer: Option B

Question No. 14 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. 15 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. 16 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. 17 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. 18 The remote sensing techniques applied for the earth's surface features, is generally confined to the following wave lengths:

(A) Visible light

- (B)
- (C)
- (D) All of these

Answer: Option D

Question No. 19 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. 20 "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. 21 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. 22 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. 23 The maximum sun's radiation occurs around:

- (A)
- (B)
- (C)
- (D) None of these

Answer: Option B

