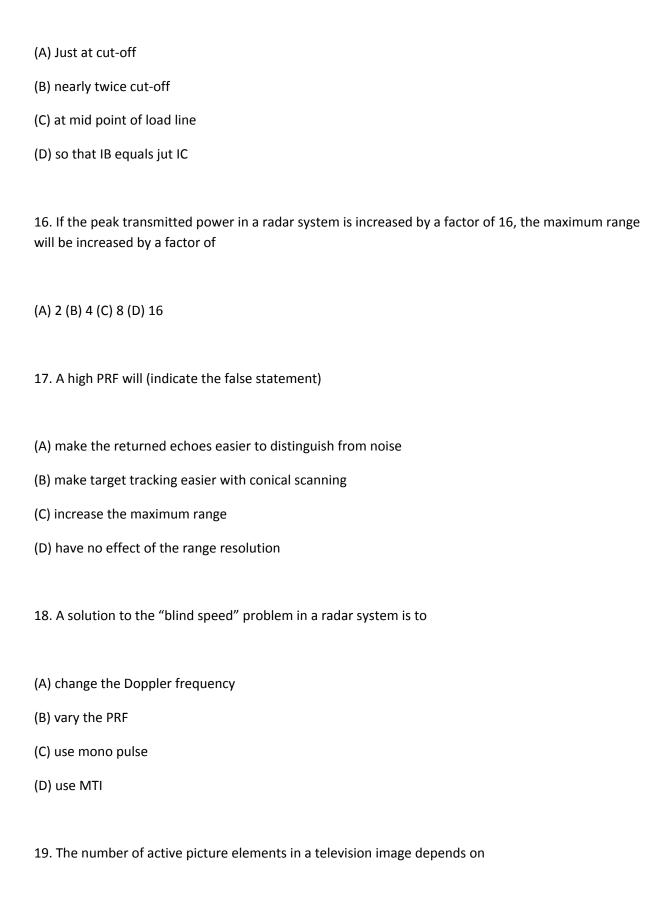
## **ELECTRONICS AND COMMUNICATIONS**

1. In a communication system, noise is most likely to get into the system
(A) at the transmitter
(B) in the channel
(C) in the information source
(D) at the destination
2. When modulation frequency is doubled, the modulation index is halved, and the modulating voltage remains constant, the modulation system is
(A) amplitude modulation
(B) phase modulation
(C) frequency modulation
(D) angle modulation
3. Impedance inversion may be obtained with
(A) a short – circuited stub
(B) an open – circuited stub
(C) a quarter – wave line
(D) a half – wave line
4. HIGH frequency waves are

(A) observed by the F2 layer
(B) reflected by D layer
(C) capable of use for long-distance communication on the moon
(D) affected by the solar cycle
5. Which one of the following terms does not apply to the Yagi-uda array
(A) Good band width
(B) Parasitic elements
(C) Folded diploe
(D) High gain
6. A duplexer is used
(A) to couple two different antennae to a transmitter without mutual interference
(B) to allow one antenna to be used for reception or transmission without mutual interference
(C) to prevent interference between two antennae when they are connected to receiver
(D) to increase the speed of the pulses in pulsed radar
7. Indicate which of the following system is digital
(A) Pulse – Position modulation
(B) Pulse – Code modulation
(C) Pulse – Width modulation
(D) Pulse – Frequency modulation

8. A forward error correcting code corrects errors only
(A) requiring partial retransmission of the signal
(B) requiring retransmission of entire signal
(C) using parity to correct to errors in all cases
(D) requiring no part of the signal to be transmitted
9. A typical signal strength received from a geosynchronous communication satellite is of the order of
(A) a few milli watts
(B) kilo watts (C) watts
(D) few pico watts
10. Telephone traffic is measured
(A) with echo cancellers
(B) by the relative congestion
(C) in terms of the grade of service
(D) in erlangs
11. Positive logic in a logic circuit is one in which
(A) logic 0 and 1 are represented by 0 and positive voltage respectively
(B) logic 0 and 1 are represented by negative and positive voltages respectively

(C) logic 0 voltage level in higher than logic 1 voltage level
(D) logic 0 voltage level is lower than logic 1 voltage level
12. A half-adder can be made from
(A) two NAND gates
(B) a NOT gate and an OR gate
(C) an AND gate and an OR gate
(D) an AND gate and an X-OR gate
13. Which of the following devices has its characteristics very close to that of an ideal current source.
(A) Field effect transistor
(B) Transistor in common bas mode
(C) Zener diode
(D) MOSFET
14. The main use of a common base transistor amplifier is
(A) as voltage amplifier
(B) current amplifier
(C) for matching a high source impedance to a low load impedance
(D) for rectification of a.c. signal
15. A class-B amplifier is biased



(B) CRT screen size
(C) received band width
(D) FB ratio of receiver antenna
20. In a colour TV, the three primary colours are
(A) red, orange and blue
(B) red, blue and green
(C) red, green and yellow
(D) red, orange and green

(A) fly back time