

(6 pages)

Reg. No. :

Code No. : 20453 E Sub. Code : CSPH 41

B.Sc. (CBCS) DEGREE EXAMINATION,
NOVEMBER 2023.

Fourth Semester

Physics

Skill Based Subject — MAINTENANCE OF
ELECTRONIC APPLIANCES

(For those who joined in July 2021 – 2022)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. If the last band in a resistor is gold, the tolerance is
(a) 20% (b) 15%
(c) 10% (d) 5%
2. In resistor, the number colour code for black is
(a) 5 (b) 8
(c) 0 (d) 1

3. The device which is used to measure current and voltage is _____

- (a) Voltmeter (b) Ammeter
(c) Meter (d) Flux meter

4. A CRO can be used to measure _____

- (a) A.C. voltage (b) D.C. voltage
(c) Frequency (d) All the above

5. Thermistor is a _____ transducer

- (a) Resistive (b) Inductive
(c) Capacitive (d) All the above

6. Active transducers work on the principle of _____

- (a) Energy conversion
(b) Mass conversion
(c) Energy alteration
(d) Volume conversion

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7. The antenna is a conductor that radiates or intercepts _____ wave energy

- (a) Electro chemical
(b) Electrical
(c) Mechanical
(d) Electro magnetic

8. The heart of mobile communication system is

- (a) Base terminal station
(b) Base station controller
(c) Mobile switching center
(d) None of the above

9. The aperture of a camera lens controls the

- (a) image sharpness
(b) depth of field of an image
(c) amount of light reaching the sensor
(d) all the above

10. Before images are transferred to the memory card, they are stored in the

- (a) Sensor
(b) Buffer
(c) Secondary memory card
(d) None of the above

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PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) Explain colour coding of resistors.

Or

(b) Describe the method of achieving good soldering.

12. (a) Describe how to defect a faulty capacitor.

Or

(b) Describe the XY mode Lissajous figures.

13. (a) Give the basic requirements of a transducer.

Or

(b) Explain the working of a light transducer.

14. (a) Explain the basic concepts of radio transmitter.

Or

(b) Describe the mobile communication system.

15. (a) Write the parts of camera and accessories.

Or

(b) Write about digital data transfer from a digital camera to computer.

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PART C --- (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Describe various types of resistors and give their characteristics.
Or
(b) Describe how printed circuit board is prepared and used.
17. (a) Describe, with neat sketch, a Cathode Ray Tube (CRT).
Or
(b) Describe digital storage oscilloscope, give its block diagram.
18. (a) Explain active and passive transducers, giving one example for each.
Or
(b) Explain the action of a piezoelectric transducer.
19. (a) Outline the basic concepts of radio receiver.
Or
(b) What is ISDN? Explain the network arrangements in ISDN.

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20. (a) Explain the various elements of flash photography.

Or

- (b) Explain (i) ISO speed and (ii) Resolution in the context of digital photography.

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