

Monthly test for month of February-2026

February 2026

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Question Paper

Duration: 30 Mins

Total Marks: 25

ID: ITISKILL9966RT

Student Name: _____	Roll No: _____
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1. How to overcome the problem of frequency drift in LC oscillators?

- A) Using high Q coils and good quality capacitors
 B) Apply opposite polarity of signal
 C) Increase the supply voltage
 D) Provide negative feedback

C) BC 148B

D) AC 127

2. What is the current rating of voltage regulator IC LM338K?

- A) 5A
 B) 4A
 C) 2A
 D) 3A

3. What is the range of output voltage of regulator IC LM 317?

- A) 0 to 30 V
 B) 0 to 32 V
 C) 1.2 V to 32 V
 D) 0 to 25 V

4. How many degrees is equal to one radian?

- A) $(360)/(\pi)$
 B) $(180)/(\pi)$
 C) $(\pi)/(180)$
 D) $(\pi)/(360)$

5. Which three terminal voltage regulator IC has adjustable output?

- A) LM 100
 B) LM 305
 C) LM 105
 D) LM 317

6. Which is equal to $\sin \theta$?

- A) Hypotenuse/Opposite side
 B) Opposite Side/Hypotenuse
 C) Adjacent Side/Hypotenuse
 D) Hypotenuse/Adjacent side

7. What is the difference of Colpitts oscillator compare to Hartley oscillator?

- A) Uses crystal oscillator
 B) Uses split inductor
 C) Uses split capacitor
 D) Uses SCR combination

8. Which is the transistor used to operate the Colpitts oscillator?

- A) BF 194B
 B) AC 188

9. What is the value of $\tan \theta$ if $\sin \theta = 4/5$?

- A) $(3/4)$
 B) $(4/5)$
 C) $(5/3)$
 D) $(4/3)$

10. What is equal to $\tan \theta$?

- A) Adjacent side/Opposite side
 B) Opposite Side/Adjacent Side
 C) Adjacent Side/Hypotenuse
 D) Opposite Side/Hypotenuse

11. Which method is followed to troubleshoot the problem causing section by the symptom?

- A) Step by step method
 B) Sensory test method
 C) Trial and error method
 D) Logical approach method

12. Why LC tuned circuits are not used in audio frequency oscillators?

- A) LC tank circuit operation requires high voltage
 B) LC tank circuit does not produce AF signals
 C) LC components are not available
 D) LC values required is too large

13. What is the natural shape of a quartz crystal?

- A) Cube shape with pyramid at ends
 B) Pentagonal prism with pyramid at ends
 C) Hexagonal prism with pyramid at ends
 D) Cylindrical shape with pyramid at ends

14. Which type of voltage regulator is IC 723?

- A) Multipin variable voltage regulator
 B) Three pin adjustable voltage regulator
 C) Three pin negative voltage regulator
 D) Three pin positive voltage regulator

15. What is equal to $\cos \theta$?

- A) Adjacent Side/Hypotenuse
 B) Opposite side/Hypotenuse

C) Hypotenuse/Adjacent Side

D) Hypotenuse/Opposite Side

16. What is the current rating of voltage regulator IC LM317L?

A) 0.1 A

B) 0.2 A

C) 0.3 A

D) 0.4 A

17. How much is the maximum load current of the negative voltage regulator IC 7912?

A) 1.0 A

B) 2.0 A

C) 0.55 A

D) 1.5 A

18. What type of feed back is used by the Wein-bridge oscillator to oscillate the signal?

A) Negative feedback

B) No feedback

C) Both positive and negative feedback

D) Positive feedback

19. Which is the 3 terminal, negative voltage regulator IC?

A) LM 320

B) IC 7812

C) LM 340

D) IC 7905

20. What type of arrangement is required to sustain the oscillations of the oscillator circuit?

A) Provide regenerative feedback

B) Increase the value of inductor

C) Increase the bias voltage

D) Provide negative feedback

21. How to improve the frequency stability in oscillator circuits?

A) Increase the supply voltage

B) Using L and C

C) Improve the property of circuits

D) By using quartz crystal

22. Which IC package consist of 100 to 1000 transistors?

A) Medium scale integration (MSI)

B) Very large scale integration (VLSI)

C) Small scale integration (SSI)

D) Large scale integration (LSI)

23. How many transistors are built inside the Very Large Scale Integration (VLSI) IC package?

A) 1 to 10 transistors

B) 10 to 100 transistors

C) 1000 and above

D) 100 to 1000 transistors

24. What is the percentage of charge accumulated by the capacitor at the end of 2 time constant limit?

A) 0.864

B) 0.632

C) 0.4

D) 0.5

25. How many time constants required to change a capacitor to 63.2% of its full charge voltage?

A) Three time constant

B) Two time constant

C) One time constant

D) Four time constant