



**2021/TDC/CBCS/ODD/
PHSSEC-301T/154**

**TDC (CBCS) Odd Semester Exam., 2021
held in March, 2022**

PHYSICS

(3rd Semester)

Course No. : PHSSEC-301T

(Workshop Skill)

Full Marks : 50

Pass Marks : 20

Time : 3 hours

*The figures in the margin indicate full marks
for the questions*

SECTION—A

Answer any *fifteen* from the following : $1 \times 15 = 15$

1. What is least count?
2. What is meant by instrumental error?
3. What is sextant?



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4. What is backlash error?
 5. What is workshop?
 6. What is meant by machining?
 7. What is forming?
 8. Name two processes which are used in joining of metals.
 9. What is tapping?
 10. Name two important cutting tools.
 11. What is filling?
 12. What is meant by fitting?
 13. What is meant by integrated circuit?
 14. What is relay?
 15. What is multimeter?
 16. What is soldering?
 17. Define mechanical advantage of a lever system.

18. What is moment of force?
19. What is gear?
20. What is pulley?

SECTION—B

Answer any five from the following : $2 \times 5 = 10$

21. Discuss how we can measure the thickness of a sheet by using screw gauge.
22. What are positive and negative errors of vernier calliper?
23. What are the defects of casting?
24. What is foundry? What are the different hand tools used in foundry?
25. Write a short note on bench vice.
26. What is milling machine?
27. Draw a neat block diagram of a regulated power supply.
28. Explain active and passive components of IC with examples.



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29. Explain first kind of lever system. Give an example. 1+4=5
30. Briefly discuss the working of disc brake. 3+2=5

SECTION—C

Answer any five from the following : 5×5=25

31. Describe the principle of vernier scale. How can the length of a body be measured by using vernier scale? 3+2=5
32. How can the height of a building be measured with the help of sextant? 1+2+2=5
33. What is welding? Explain it. Discuss the advantages and disadvantages of welding joint. 3+2=5
34. What is timber? How can they be classified? Define exogenous and endogenous trees. 1+2+2=5
35. What is drilling machine? Discuss the working principle of drilling machine. What are the basic drilling operations? 1+2+2=5

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36. What is lathe? Discuss the different lathe operations. 1+4=5
37. Discuss the working of a transistor as a switch. 2+2+1=5
38. Draw a neat diagram of CRO. Discuss the different components of the CRO and mention its uses. 3+2=5
39. What is hydraulic brake system? State its advantages and disadvantages. 1+4=5
40. What is power generating system? How can they be classified? 1+4=5

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