

Vocational Practical Question Bank

First & Second Year

Electronics Engineering Technician

Course Code : 312



State Institute of Vocational Education

O/o the Commissioner of Intermediate Education

Andhra Pradesh, Hyderabad

&

Board of Intermediate Education,

Andhra Pradesh, Hyderabad

First Year

ELECTRONICS ENGINEERING TECHNICIAN**First Year (P.C. 312/21)**

Subject : Electronic Devices and Circuits Lab

Paper - I

Time : 3 Hours**Max. Marks : 50****Section - I****1 x 40 = 40 Marks**

1. Determine the value of the given resistance by E / I method and compare its value with the colour coded value.
2. Find the total resistance when three three resistors are connected in series and parallel.
3. Measure the of co-efficient of coupling of an iron core transformer given.
4. Determine the resonant frequency and band width of the series RLC circuit from the Frequency versus Gain response curve.
5. Determine the resonant frequency and band width of the parallel RLC circuit from the Frequency versus Gain response curve.
6. Study the PN junction diode forward and reverse bias V-I Characteristics.
7. Study the Zener diode forward and reverse bias V-I Characteristics.
8. Study the transistor V-I Characteristics in CB configuration.

OR

Study the transistor V-I Characteristics in CE configuration.

9. Study the FET V-I Characteristics.
10. Study the SCR V-I Characteristics.
11. Study the Zener Voltage regulator and measure its % voltage regulation.
12. Study the two stage RC Coupled amplifier and draw the frequency versus Gain curve. Determine the bandwidth.

13. Study the Class-B Push-Pull amplifier. Measure Voltages at input and output points. Calculate efficiency.
14. Study the HW,FW centre tap and Bridge rectifiers. Measure input and output Voltages.
15. Study the Collpitts and Hartley oscillators. Calculate frequency.
16. Study the Tuned Collector and Crystal oscillators. Calculate frequency.
17. Study the IC packages. Write pins counting procedure.
18. Study the different types of primary, secondary batteries.
19. Study the photo diode V-I Characteristics.
20. Study the different types of LED's and their cut in Voltages.

Section - II

Record	5 Marks
Viva	5 Marks

ELECTRONICS ENGINEERING TECHNICIAN**First Year**

MODEL QUESTION PAPER

Subject : Electronic Devices and Circuits Lab**Paper - I**

Time : 3 hours

Max. Marks : 50

Section - I**1 x 40 = 40 Marks**

16. Study the Tuned Collector and Crystal oscillators. Calculate the frequency.

Section - II

Record

5 Marks

Viva

5 Marks

Note : The serial numbers of the questions mentioned in are the serial numbers in question bank. In practical examination only the serial number of the questions will given, the examiner shall decode it with question bank and give the questions.

ELECTRONIC S ENGINEERING TECHNICIAN**First Year****PRACTICAL SCHEME OF VALUATION****Subject : Electronic Devices and Circuits Lab****Paper - I****Time : 3 hours****Max. Marks : 50****Section - I**

Instruments and equipment required	:	5 Marks
Circuit diagram	:	10 Marks
Brief theory	:	5 Marks
Procedure	:	10 Marks
Tabular column	:	5 Marks
Graph/Calculations	:	5 Marks

Section - II

Record	:	5 Marks
Viva	:	5 Marks

ELECTRONICS ENGINEERING TECHNICIAN**First Year (P.C. 312/22)**

Subject : Digital Electronics and Computer Fundamentals Lab

Paper - II

Time : 3 Hours**Max. Marks : 50****Section - I****1 x 40 = 40 Marks**

1. Study the Logic gates OR, AND, NOT (using IC's) with truth tables.
2. Study the Logic gates NOR, NAND, and EX-OR (using IC's) with truth tables.
3. Study the Half adder/Sub-tractor using ICs.
4. Study the Full adder/Sub-tractor using ICs.
5. Study the truth tables of RS, RST, D and T flip-flops.
6. Study the Counter IC's using 7490 (equivalents).
7. Study the Shift Register IC's using 7495 (equivalents).
8. Study the Seven Segment Display Decoder using IC's 7490 (equivalents).
9. Study the A/D and D/A converters using ICs.
10. Study the Counter IC's using 7490 (equivalents).
11. Study the various Peripherals used on Mother board .
12. Create a word document containing your class of ten students information --> sno, name, Son of, Date of birth, class, address, date of joining in the class, and save in a folder.
13. Write the steps involved in preparation of word document. Identify usage of the components on the screen.
14. Create a table in MS-Word document of 10 student details.
S.No, Group, No.of students, No. of girls, No. of boys,
15. Using spell check option in MS-Word, check the spell check in paragraphs and save the document.

16. Create MS-Excel sheet, identify the components on the screen and explain the usage of each component.
17. Create a sheet Excel sheet containing ten students details.
S.No, Group, No.of students, No. of girls, No. of boys,
18. Sorting and Filtering of data in a MS-EXCEL worksheet group wise, gender wise..
19. Demonstrate the simple Power Point Presentation for a Job.
20. Demonstrate a power point presentation with atleast 5 custom animation commands.

Section - II

Record

5 Marks

Viva

5 Marks

ELECTRONICS ENGINEERING TECHNICIAN**First Year**

MODEL QUESTION PAPER

Subject : Digital Electronics and Computer Fundamentals Lab**Paper - II**

Time : 3 hours**Max. Marks : 50**

Section - I**1 x 40 = 40 Marks**

17. Create a sheet Excel sheet containing ten students details.

S.No, Group, No.of students, No. of girls, No. of boys,

Section - II

Record

5 Marks

Viva

5 Marks

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ELECTRONICS ENGINEERING TECHNICIAN**First Year****PRACTICAL SCHEME OF VALUATION KEY****Subject : Digital Electronics and Computer Fundamentals Lab****Paper - II****Time : 3 hours****Max. Marks : 50****Section - I****1 x 40 = 40 Marks**

Demonstration / Procedure : 30 Marks

Result : 10 Marks

Section - II

Record : 5 Marks

Viva : 5 Marks

ELECTRONICS ENGINEERING TECHNICIAN**First Year (P.C. 312/23)****Subject : Engineering Drawing****Paper - III****Time : 3 Hours****Max. Marks : 50****Section - I****5 x 8 = 40 Marks**

1. Print the following in upright capital letters 8 mm.
STATE INSTITUTE OF VOCATIONAL EDUCATION
2. Redraw dimensions neatly the given cylinder of height 80mm radius 25mm.-
3. Draw an ellipse of major axis 80mm and minor axis 50 mm using oblong method.
4. Draw the projections of Pentagon of side 25mm basing on HP.
5. Draw the orthographic projections of a cone inclined 30 degrees in the VP an its base 30 mm radius with axis 80mm.
6. Draw the sectional view of Hexagonal Block of radius 30mm.
7. Draw the total development of the Square Prism having dimensions of height 60mm and side20mm.

Section - II

Record

5 Marks

Viva Voce

5 Marks

ELECTRONICS ENGINEERING TECHNICIAN**First Year****MODEL QUESTION PAPER****Subject : Engineering Drawing****Paper - III****Time : 3 hours****Max. Marks : 50****Section - I****5 x 8 = 40 Marks**

1. Print the following in upright capital letters 8 mm.

STATE INSTITUTE OF VOCATIONAL EDUCATION

2. Redraw dimensions neatly the given cylinder of height 80mm radius 25mm.-
3. Draw an ellipse of major axis 80mm and minor axis 50 mm using oblong method.
4. Draw the projections of Pentagon of side 25mm basing on HP.
5. Draw the orthographic projections of a cone inclined 30 degrees in the VP an its base 30 mm radius with axis 80mm.

Section - II

Record

5 Marks

Viva

5 Marks

Note : The serial numbers of the questions mentioned in are the serial numbers in question bank. In practical examination only the serial number of the questions will given, the examiner shall decode it with question bank and give the questions.

ELETRONIC S NGINEERING TECHNICIAN**First Year**

PRACTICAL SCHEME OF VALUATION

Subject : Engineering Drawing**Paper - III**

Time : 3 hours**Max. Marks : 50**

Section I**(1 x 8 = 8 Marks)**

Free hand lettering and numbering	:	1 Mark
Dimensioning Practice	:	1 Mark
Geometrical Constructions	:	1 Mark
Projection of Points, Lines, Planes and Solids	:	1 Mark
Orthographic projections-Plan, Elevation and Side views	:	2 Marks
Sectional views	:	1 Marks
Development of Surfaces	:	1 Marks

Section - II

Record		5 Marks
Viva		5 Marks