

CBSE | DEPARTMENT OF SKILL EDUCATION

Electronics and Hardware (SUBJECT CODE 420)

Blue-print for Sample Question Paper for Class IX (Session - 2024-2025)

Max. Time: 2 Hours

Max. Marks: 50

PART A - EMPLOYABILITY SKILLS (10 MARKS):

UNIT NO.	NAME OF THE UNIT	OBJECTIVE TYPE QUESTIONS	SHORT ANSWER TYPE QUESTIONS	TOTAL QUESTIONS
		1 MARK EACH	2 MARKS EACH	
1	Communication Skills – I	1	1	2
2	Self-Management Skills – I	2	1	3
3	ICT Skills – I	1	1	2
4	Entrepreneurial Skills – I	1	1	2
5	Green Skills - I	1	1	2
TOTAL QUESTIONS		6	5	11
NO. OF QUESTIONS TO BE ANSWERED		Any 4	Any 3	07
TOTAL MARKS		1 x 4 = 4	2 x 3 = 6	10 MARKS

PART B - SUBJECT SPECIFIC SKILLS (40 MARKS):

UNIT NO.	NAME OF THE UNIT	OBJECTIVE TYPE QUESTIONS	SHORT ANSWER TYPE QUESTIONS	DESCRIPTIVE / LONG ANS. TYPE QUESTIONS	TOTAL QUESTIONS
		1 MARK EACH	2 MARKS EACH	4 MARKS EACH	
1	Basics of Electrical and Electronics	4	1	-	5
2	Electrical and Electronics Components	5	1	1	7
3	Tools and Equipment	5	1	-	6
4	Installing an RO Water Purifier	3	1	1	5
5	Repair and Maintenance of Water Purifier	3	1	2	6
6	Maintain Health and Safety	4	1	1	6
TOTAL QUESTIONS		24	6	5	35
NO. OF QUESTIONS TO BE ANSWERED		20	Any 4	Any 3	27
TOTAL MARKS		1 x 20 = 20	2 x 4 = 8	4 x 3 = 12	40 MARKS

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Electronics and Hardware (420)

Sample Question Paper for Class IX (Session 2024-2025)

Max. Time: 2 Hours

Max. Marks: 50

General Instructions:

1. Please read the instructions carefully.
2. This Question Paper consists of **21 questions** in two sections: Section A & Section B.
3. Section A has Objective type questions whereas Section B contains Subjective type questions.
4. **Out of the given (5 + 16 =) 21 questions, a candidate has to answer (5 + 10 =) 15 questions in the allotted (maximum) time of 2 hours.**
5. All questions of a particular section must be attempted in the correct order.
6. **SECTION A - OBJECTIVE TYPE QUESTIONS (24 MARKS):**
 - i. This section has 05 questions.
 - ii. Marks allotted are mentioned against each question/part.
 - iii. There is no negative marking.
 - iv. Do as per the instructions given.
7. **SECTION B – SUBJECTIVE TYPE QUESTIONS (26 MARKS):**
 - i. This section has 16 questions.
 - ii. A candidate has to do 10 questions.
 - iii. Do as per the instructions given.
 - iv. Marks allotted are mentioned against each question/part.

SECTION A: OBJECTIVE TYPE QUESTIONS

Q. 1	Answer any 4 out of the given 6 questions on Employability Skills (1 x 4 = 4 marks)	
i.	What does the word " <i>Communicare</i> " means? a) Listening b) Share c) Understanding d) Giving	1
ii.	Which of the following is a quality of a self-confident person? a) Patient b) Compassionate c) Committed d) Passionate	1
iii.	Which of the following is not a self-management skill? a) Problem solving b) Bargaining c) Understanding self d) Confidence building	1
iv.	What does ICT stands for?	1
v.	Business is an (an) _____ activity? a) Social. b) Economic c) Hazardous d) Selling	1
vi.	Which of the following is an example of renewable resources? a) Coal b) Solar Energy c) CNG d) Petroleum	1

Q. 2	Answer any 5 out of the given 6 questions (1 x 5 = 5 marks)	
i.	Unit of Voltage is a) Ampere b) Volt c) Watt d) Joule	1
ii.	Device which store energy in the form of electric field ----- a) Capacitor b) Inductor c) Resistors d) Diode	1

iii.	The maximum contamination level advised for TDS is _____ a) 400 mg/L b) 500 mg/L c) 600 mg/L d) 700 mg/L	1
iv.	Which of the following equipment is used to measure the Current? a) Multimeter b) Megger meter c) Ammeter d) Tachometer	1
v.	The average pressure for the purifier is _____ a) 70 – 80 psi b) 60 – 50 psi c) 50 – 70 psi d) 40 – 50 psi	1
vi.	Cardio-Pulmonary Resuscitation is a a) Natural respiration b) Artificial respiration c) Study of respiratory system d) Study of heart	1

Q. 3	Answer any 5 out of the given 6 questions (1 x 5 = 5 marks)	
i.	If $P = 50$ watt and $R = 2 \Omega$, then $I =$ _____ a) 50 A b) 5 A c) 10 A d) 2 A	1
ii.	Which of the following is a semiconductor material? a) Silicon b) Germanium c) Both a & b d) None of these	1
iii.	The device which is used to measure insulation resistance _____	1
iv.	Raw water TDS should not be less than? a) 50 PPM b) 100 PPM c) 110 PPM d) 120 PPM	1
v.	PPM stands for? a) Parts per meter	1

	b) Particle per million c) Particle per milli d) Parts per million	
vi.	Which of the following tools is used for making threads? a) Tap and dies b) Screwdriver c) Hammer d) Drill machine	1

Q. 4	Answer any 5 out of the given 6 questions (1 x 5 = 5 marks)	
i.	While working with electricity, the technician must wear..... gloves & shoes.	1
ii.	Which of the following is type of impurity? a) Minerals b) Salts c) Metals or ions d) All of the above	1
iii.	What is the pH value of water? a) More than 7 b) Less than 7 c) Equal to 7 d) 14	1
iv.	Tong meter is also known as _____	1
v.	A colour code of Brown, Brown, Red, Gold is for what ohmic value? a) 1.2k Ω 5% b) 1.1k Ω 5% c) 1.3k Ω 5% d) 1.5k Ω 5%	1
vi.	Resistance of material is affected---- a) Length b) Temperature c) Thickness d) All of the above	1

Q. 5	Answer any 5 out of the given 6 questions (1 x 5 = 5 marks)	
i.	Transformer works on _____ a) AC b) DC c) Both a & b d) None of these	1
ii.	In line tester _____ Bulb is used for indication of live wire.	1

iii.	1 KWh = _____ watt x _____ second	1
iv.	Earthing is necessary in electrical equipment. (True/False)	1
v.	Which of the following is used as a wire connector. a) Lugs b) Screwdriver c) Stripper d) Hammer	1
vi.	In NPN Transistor P-type material is equivalent to _____ of the Diode. a) Cathode b) Anode c) Ground d) Neutral	1

SECTION B: SUBJECTIVE TYPE QUESTIONS

Answer any 3 out of the given 5 questions on Employability Skills (2 x 3 = 6 marks)

Answer each question in 20 – 30 words.

Q. 6	Write down different types of non-verbal communication.	2
Q. 7	What are the factors that affect self-confidence?	2
Q. 8	List the different input and output devices of a computer.	2
Q. 9	What are the 3 types of business activities?	2
Q. 10	What are green skills?	2

Answer any 4 out of the given 6 questions in 20 – 30 words each (2 x 4 = 8 marks)

Q. 11	What is electric current?	2
Q. 12	What are the applications of transistor?	2
Q. 13	Write down two uses of a Multimeter?	2
Q. 14	Write a short note on Carbon filter?	2
Q. 15	Write down a short note on TDS?	2
Q. 16	Write down the different types of Hazards?	2

Answer any 3 out of the given 5 questions in 50– 80 words each (4 x 3 = 12 marks)

Q. 17	What is LED & Why LEDs are good choice?	4
Q. 18	List the different types of water purifier?	4
Q. 19	What are the steps for checking the TDS level of the water?	4
Q. 20	Write down the steps for the replacement of filter?	4
Q. 21	What are the precautions to be taken for preventing electric shock on the job?	4