

CBSE | DEPARTMENT OF SKILL EDUCATION

ELECTRONICS & HARDWARE (SUBJECT CODE - 420)

Blue-print for Sample Question Paper for Class X (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 - II	1	1	2
2	Self-Management Skills - II	1	1	2
3	ICT Skills – II	1	1	2
4	Entrepreneurial Skills - II	1	1	2
5	Green Skills - II	2	1	3
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	Electrical Components and Motor.	6	1	1	7
2	Repair and Maintenance of Mixer/Juicer/Grinder.	6	2	1	9
3	Repair and Maintenance of Microwave oven.	6	1	2	9
4	Workplace Health and Safety measures.	6	2	1	10
TOTAL QUESTIONS		24	6	5	35
NO. OF QUESTIONS TO BE ANSWERED		Any 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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Sample Question Paper for Class X (Session 2023-2024)

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.	Which of the following sources of energy is from a renewable source? a) Solar Energy b) Wood c) Coals d) Petrol	1
ii.	Entrepreneurs can create jobs in the market. a) True b) False	1
iii.	How can an anti-virus protect your device? a) It can protect it from overheating. b) It can increase its performance. c) It can prevent data from getting corrupted. d) It can back up data.	1
iv.	In SMART goals, what does 'T' stand for?	1
v.	Which of these is NOT a common communication barrier? a) Linguistic barrier. b) Interpersonal barrier. c) Financial barrier. d) Organizational barrier.	1
vi.	How many Sustainable development goals are given by the United Nations? a) 18 b) 17 c) 15 d) 20	1
Q.2	Answer any 5 out of the given 6 questions (1 x 5 = 5 marks)	
i.	Which of the following is not the part of MCB? a) Bimetallic Strip. b) Trip. c) Solenoid. d) Arc-chutes holder.	1
ii.	OLP stands for: a) Auto Switch b) Automatic Protector c) Overload Switch d) Auto Overload Protector.	1
iii.	Which of the following devices is used for overcurrent protection? a) Diode b) High Voltage Capacitor c) High Voltage Transformer d) Fuse	1
iv.	Rubber is a good conductor of Electricity. a) True b) False	1
v.	Which of the following is to control the speed of mixer. a) Overload Switch b) Rotary switch c) Power switch d) Control Switch	1

vi.	Which of the following motor is used in a mixer? a) Stepper motor b) Universal motor c) Servomotor d) Induction motor.	1
Q.3	Answer any 5 out of the given 6 questions (1 x 5 = 5 marks)	
i.	Which of the following steps are required to perform CPR? a) Chest compression b) Open airway c) Rescue breathing d) All of the above	1
ii.	Which of the following tools is used to discharge high voltage capacitor? a) Side cutter plier b) Electrician knife c) Nose plier d) Plier	1
iii.	Motor convert the electrical energy into.....energy.	1
iv.	RPM stands for 'Rotation Per Minute' a) True b) False	1
v.	Which of the following parts use a permanent magnet? a) High voltage transformer b) Magnetron c) High voltage capacitor d) Relay	1
vi.	Steps to use a fire extinguisher involve: a) Squeeze the handle b) Pull the pin c) Aim the nozzle d) All of the above	1
Q.4	Answer any 5 out of the given 6 questions (1 x 5 = 5 marks)	
i.	Which of the following parts produces microwave in microwave oven? a) Magnetron b) Transformer c) High voltage capacitor d) Diode	1
ii.	The rotary switch regulates the speed of the mixer motor. a) True b) False	1
iii.	In a circuit, rise in temperature can occur due to short circuit. a) True b) False	1
iv.	Electrical tools have two parts: conductors and	1
v.	Which of the following parts respond when there is increase in heat? a) Pre-filter b) Thermostat c) High voltage capacitor d) High voltage transformer	1
vi	Electric wires have different colour code. a) True b) False	1
Q.5	Answer any 5 out of the given 6 questions (1 x 5 = 5 marks)	
i.	Motor works on the principle of	1

ii.	Which of the following is not the type of mixer a) Planetary mixer b) Stand mixer c) Spiral mixer d) Pipe mixer	1
iii.	Which of the following components are used in microwave oven a) Magnetron b) Transformer c) Relay d) All of the above.	1
iv.	Copper is a good conductor of electricity. a) True b) False	1
v.	Rotating part of motor is.....	1
vi.	Which of the following are the types of juicer? a) Centrifugal juicer b) Masticating juicer c) Citrus juicer or Reamer d) All of the above.	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 the Advantages of Verbal Communication.	2
Q.7	What is Goal Setting?	2
Q.8	What measures we can take to protect our data from theft and viruses?	2
Q.9	Define the meaning of a career.	2
Q.10	What are the three ways to Create Sustainable Cities?	2

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

Q.11	What is Relay?	2
Q.12	Name the parts of mixer?	2
Q.13	What is OLP?	2
Q.14	List out the needs of microwave in our daily life?	2
Q.15	What is FIRE EXTINGUISHER?	2
Q.16	What is PPE?	2

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

Q.17	Define AC Motor and Write down the types of DC Motor Write down two uses of Special Motor?	2+2
Q.18	Write down the different steps of Cleaning the juicer?	4
Q.19	Write down the Major internal parts of microwave oven? Write down the parts of microwave oven operates on high voltage and current?	2+2
Q.20	Write the Composition of a Microwave Oven?	4
Q.21	What first aid measure must be taken in case of electrical shock?	4