

CBSE | DEPARTMENT OF SKILL EDUCATION

ELECTRONICS TECHNOLOGY (SUBJECT CODE 820)

CLASS XII (SESSION 2021-2022)

BLUE-PRINT FOR SAMPLE QUESTION PAPER FOR TERM -1

Max. Time Allowed: 90 Minutes (1½ Hrs.)

Max. Marks: 30

PART A - EMPLOYABILITY SKILLS (05 MARKS):

UNIT NO.	NAME OF THE UNIT	NO. OF QUESTIONS (1 MARK EACH)
1	Communication Skills-IV	2
2	Self-Management Skills-IV	2
3	Information and Communication Technology Skills-IV	2
TOTAL QUESTIONS		6 Questions
NO. OF QUESTIONS TO BE ANSWERED		Any 5 Questions
TOTAL MARKS		1 x 5 = 5 marks

PART B - SUBJECT SPECIFIC SKILLS (25 MARKS):

UNIT NO.	NAME OF THE UNIT	NO. OF QUESTIONS (1 MARK EACH)
1.	Basic Occupational Safety and Precautions	17
2.	Microphones and loudspeakers	7
3.	Recorders	8
TOTAL QUESTIONS		32 Questions
NO. OF QUESTIONS TO BE ANSWERED		25 Questions
TOTAL MARKS		1 x 25 = 25 MARKS

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Max. Time Allowed: 90 Minutes (1½ Hrs.)

Max. Marks: 30

General Instructions:

1. Please read the instructions carefully
2. This Question Paper is divided into 03 sections, viz., Section A, Section B and Section C.
3. Section A is of 05 marks and has 06 questions on Employability Skills.
4. Section B is of 20 marks and has 25 questions on Subject specific Skills.
5. Section C is of 05 marks and has 07 competency-based questions.
6. Do as per the instructions given in the respective sections.
7. Marks allotted are mentioned against each section/question.
8. All questions must be attempted in the correct order

SECTION A

Answer any 5 questions out of the given 6 questions on Employability Skills

(1 x 5 = 5 marks)

1.	Which of the following options are NOT correct with respect to Listening? A. Listening is active B. Listening is involuntary C. Listening is focused D. Listening is Intentional	1
2.	Most of our day-to-day reading is done _____ ? A. Silently B. Extensively C. Intensively D. Loudly	1
3.	In this condition people have a sense of their own importance a deep need for excessive attention and admiration and lack of empathy for others. Identify the personality disorder explained in the above lines A. Avoidant B. Paranoid C. Narcissistic D. Antisocial	1
4.	Which of the following are psychological needs and physiological needs? A. Friendship, family & Security needs B. External needs & Internal needs C. Achievement, affiliation & Hunger, and thirst D. Friendship & Security needs	1

5.	What is the function of the button of Excel window marked X called? A. It opens the previous worksheet B. It opens the first worksheet C. It opens the last worksheet D. It opens the next worksheet	1
6.	Which component of MS-Excel is an intersection of row and column? A. Column header B. Row header C. Formula bar D. Cell	1

SECTION B

Answer any 20 questions out of the given 25 questions

(1 x 20 = 20 marks)

7.	Arrange the following steps of occupational hygiene in the correct sequence: recognition, anticipation evaluation and control of workplace hazards. A. Anticipation, recognition, evaluation, and control of workplace hazards. B. Anticipation, evaluation, recognition, and control of workplace hazards. C. Recognition, anticipation, evaluation, and control of workplace hazards. D. Recognition, anticipation, control of workplace hazards and evaluation.	1
8.	Which among the following is not an occupational hazard? A. Related to the noise B. Related to lead poisoning C. Related to the electricity D. Related to the fire	1
9.	How does a person experience an electric shock? A. When any part of the human body comes indirectly into contact with an object through which electric current is flowing. B. When any part of the human body comes in direct contact with an object through which electric current is flowing. C. When any part of the human body comes indirectly into contact with an object through which electric charge is stationary. D. Both A and B	1
10.	Which of them is not a factor to decide the lethality of an electric shock? A. The quantity of current flowing through the body. B. The current path through the body from entry to exit. C. The period of time the body is in the circuit. D. Wearing loose clothes or tying while working on electrical devices.	1
11.	A safety shorting probe is used for _____? A. ensuring safety from electrical shock by using a non-conductive layer. B. discharging the capacitor of the devices before working. C. protecting your eye from high intensity light. D. protecting ears from high decibel sounds.	1
12.	Which of them is a safety concern in a manufacturing industry? A. Poor maintenance. B. Lifting heavy loads by human beings. C. Proper lighting arrangement inside the industry. D. Wearing a respiratory mask.	1

13.	<p>C.P.R. stands for _____ ?</p> <p>A. Cardiopulmonary resuscitation. B. Cardiopulmonary rhythm. C. Cardiopulmonary rejuvenation. D. Cardiopulmonary recovery.</p>	1
14.	<p>What is the full form of LASER?</p> <p>A. Light amplification by stipulated emission of radiation. B. Light amplification by stimulated emission of radiation. C. Light amplification by stimulated emissive radiation. D. Light amplification by stimulated emulsification of radiation.</p>	1
15.	<div style="text-align: center;">  </div> <p style="text-align: center;">Identify the symbol from choices given below?</p> <p>A. High radiation zone. B. High voltage zone. C. Nuclear radiation zone. D. Low Noise zone.</p>	1
16.	<div style="text-align: center;">  </div> <p style="text-align: center;">Identify the symbol from choices given below?</p> <p>A. Chemical hazard B. Electrical hazard C. Laser hazard D. Nuclear hazard</p>	1
17.	<p>Choose among the following the most dangerous current paths which may cause severe damage to the heart?</p> <p>A. Hand-to-hand. B. Head-to-foot. C. Ear-to-ear. D. Foot-to-foot.</p>	1
18.	<p>Mention the name of the first practical microphone that came into existence?</p> <p>A. Dynamic Microphone B. Condenser Microphone C. Carbon Microphone D. Ribbon Microphone</p>	1
19.	<p>Which of the given microphones have a high impedance value?</p> <p>A. Condenser Microphone B. Moving coil Microphone C. Carbon Microphone D. Both B and C</p>	1
20.	<p>_____ is the principle of a crystal microphone?</p> <p>A. Crystal effect B. Induction principle C. Piezo-electric effect D. Conduction principle.</p>	1

21.	Which of them is a unit of sound intensity? A. Dol B. Decibel C. Candela D. Kelvin	1
22.	How are Impedance (Z) and current(I) in a circuit related? A. $I \geq Z$ B. I is directly proportional to Z C. I is inversely proportional to Z D. $I \leq Z$	1
23.	Describe the function of a tweeter? A. Reproduction of low frequencies. B. Reproduction of highest frequencies. C. Reproduction of the mid-frequencies. D. Reproduction of the resonant frequencies.	1
24.	The desired frequency range moderated by a squawker is _____? A. 2kHz-20kHz. B. 500Hz-5kHz. C. 20Hz-600Hz. D. Both B and C.	1
25.	_____ is used for analog sound recording? A. Compact Disc. B. Blu-ray Disc. C. Magnetic Tape. D. Solid State Drives.	1
26.	The magnetic field fed to the magnetic tape varies in accordance with ____? A. Audio frequency signal. B. Radio frequency signal. C. Micro frequency signal. D. Carrier wave signal.	1
27.	Arrange the steps for the proper recording process in the correct order? A. Erase the tape, Record the new signal, and reproduce the signal B. Erase the tape, Reproduce the signal, and record the new signal C. Reproduce the signal, Erase the tape, and record the new signal D. Record the signal, Erase the tape, and reproduce the new signal	1
28.	Which of the given options is not the reasons for a general recording failure? A. Wrong choice of components. B. Excessive heat because of lack of cooling. C. Excessive continuous use. D. High frequency signal.	1
29.	What is the full form of D.V.D.? A. Digital Video Disc. B. Digital Versatile Disc. C. Digital Volatile Disc. D. Digital Versatile Drive.	1
30.	Choose the correct full form for A.D.C.? A. Apparent dispersion control. B. Analog to digital compressors. C. Analog to digital converter. D. Apparent digital console.	1
31.	Choose from the given options a disadvantage of digital recording? A. Can be used to copy files from the directories. B. Write protection is available. C. Free space on the disc can be utilized with the help of software. D. Software is required for the write operation of the disc.	1

SECTION C
(COMPETENCY BASED QUESTIONS)

Answer any 5 questions out of the given 7 questions

(1 x 5 = 5 marks)

Case Study I	<p>Iron is the world's most commonly used metal and can usually be found with other elements in the form of steel. In this era of machines, it is the inevitable part in production of various materials like eyeglass frames, jet aircraft, the space shuttle, automobiles, and surgical instruments. The total production of steel in the world in 2012 was 121,293 thousand tons and that of India was estimated to be 6,600 thousand tons.</p> <p>The iron and steel industries have foundries consisting of ovens and furnaces, which involve heat, noise, vibration, and dusty environments. Therefore, iron and steel workers are especially prone to occupational health problems and experience more sickness absenteeism. The work-related morbidity and mortality not only result in suffering and hardship for the worker and his or her family, but it also adds to the overall cost to society through lost productivity and increased use of medical and welfare services.</p> <p>Occupational factors make an important contribution to the global burden of disease, but reliable data on occupational disease are much more difficult to obtain.</p> <p>According to the data of 2009 for the National Program for Control and Treatment of Occupational Diseases there are 100 million occupational injuries in India causing 0.1 million deaths. It is also estimated that in India, 17 million occupational nonfatal injuries (17% of the world) and 45,000 fatal injuries (45% of the total deaths due to occupational injuries in the world) occur each year. Out of 10 million cases of occupational diseases in the world, 1.2 million (12%) are contributed by India; and out of 0.7 million deaths in the world, 0.3 million (2.33%) is contributed by India. In 1986, the workforce in our country was 7 million, which now is 64 million due to the tremendous mushrooming of industries.</p> <p>The most common morbidities in occupational health reported by WHO are back pains, hearing loss, chronic obstructive lung disease, asthma, injuries, lung cancer, and leukemia. Thus, industrial workers show a high level of morbidities. In order to improve the quality of life of the industrial workers, it is essential that the burden of diseases among them be reduced. Depending upon the pattern and the magnitude of the morbidity, one could focus primary healthcare services to suit the local conditions</p>	
32.	<p>Which is the world's most commonly used metal?</p> <p>A. Tin B. Copper C. Aluminium D. Iron</p>	1
33.	<p>Iron is an essential raw material for which of the below given sectors?</p> <p>A. Aerospace industry B. Leather Industry C. Automobile Industry D. Both A and C</p>	1
34.	<p>How can you minimize the morbidities in an iron and steel industry?</p> <p>A. By using protective equipment. B. By reduction in working hours. C. Both A and B. D. By increasing the work force.</p>	1
35.	<p>Among the following which are not the common morbidities reported by W.H.O.?</p> <p>A. Back pain B. Hearing loss C. Asthma D. Diarrhoea</p>	1

<p>Case Study II</p>	<p>Occupational hazards cause more severe loss of life and injuries in the workplace each year, disrupting lives and impacting the productivity including mental well-being of working personnel.</p> <p>While occupational hazards are not the leading cause of on-the-job injuries, accidents, and fatalities, they are disproportionately fatal and costly. These injuries are not isolated to one industry or field of work, and most could be easily avoided. Awareness of these hazards is critical to avoiding and preventing accidents. Whether you are an employer, safety director or maintenance professional—safety is of prime importance for anyone who works on or around any potentially hazardous equipment. The standard safety ruling recognizes electricity as a long-time serious workplace hazard. These include but are not limited to dangers such as electric shock, electrocution, fires and explosions. Whether employed at a large manufacturing plant or in a small installation, there are certain guidelines that should serve as a helpful reminder of basic electrical safety practices.</p> <p>It is important to ensure an employee is pre-trained and qualified for a job. Not understanding the</p> <p>The nature of the job can lead to minor to fatal accidents and injuries. Even well-qualified workers are vulnerable to accidents. This is why it is important to make safety and ensure it as an integral part of the planning process for every job.</p>	
<p>36.</p>	<p>Which of the options is not an integral part of the planning process of every job?</p> <p>A. Training B. Safety C. Workplace environment D. Manufacturing</p>	<p>1</p>
<p>37.</p>	<p>Why is a pre-trained employee preferred over a fresher in the manufacturing industries?</p> <p>A. Pre trained employees are familiar with the do's and don'ts. B. Pre trained employees are more vulnerable to morbidities than a fresher. C. Both A and D D. Pre trained employees are less vulnerable to morbidities than a fresher.</p>	<p>1</p>
<p>38.</p>	<p>_____ hazards cause more severe loss of life and injuries in the workplace each year?</p> <p>A. Agricultural B. Household C. Health sector D. Occupational</p>	<p>1</p>