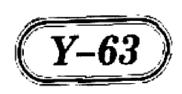
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Total No. of Questions: 23]

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ELECTRONICS AND HARDWARE

(Vocational)

Time: 2½ Hours] [Maximum Marks: 50

Section-I

(Very Short Answer Type Questions)

1 each

- How can you prioritize task effectively ?
 - (A) By working on tasks in the order they were received
 - (B) By working on tasks based on their complexity
 - (C) By working on tasks based on their urgency and importance
 - By working on the tasks that are easier to complete first

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Turn Over

2.	Per	sonal grooming is an extension of :
	(A)	Public hygiene
	(B)	Personal hygiene
	(C)	Personal development
	(D)	Professional ethics
3.	If D	.C. motor is connected across the A.C. supply, it will :
	(A)	Run at normal speed
	(B)	Not run
	(C)	Run at lower speed
	(DT)	Burns due to heat produced in the field windings by eddy currents
4.	The	resistivity of a conductor depends on :
	(A)	Area of conductor
	(B)	Length of conductor
	(e)	Type of material
	(D)	None of these
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- 5. The resistance of a conductor of diameter 'd' and length 'l' is R Ω . If the diameter is halved and length is doubled, the resistance will be :
 - (A) R Ω
 - (B) 2R Ω
 - (C) 4R Ω
 - L(8) 8R Ω
- 6. A PN junction diodes is forward biased when

P is connected to +ve terminal and N is connected to -ve terminal

- (B) Both P and N are connected to positive terminal
- (C) Both P and N are connected to negative terminal
- (D) None of these

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Turn Over

7.	. writer of the tollowing is the unit of compressor capacity?	
	(A)	Meter
	(B)	(Meter) ²
	(C)	(Meter) ³
	40	(Meter) ³ /second
8.	Full	form of BTU is :
	(A)	Bharat Transportation Unit
	(B)	Bharat Thermal Unit
	LIET	British Thermal Unit
	(D)	British Thermal Utilization
9.	******	extinguishers are ideal for places with a lot of electrical
	equi	pment such as offices or server rooms
	(A)	CI ₂
	(B)	so ₂
	uer	CO2
	(D)	N ₂ S
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- (A) Class a
- (B) Class b
- (C) Class c
- (D) Class d

Section-IJ

(Short Answer Type Questions-I)

2 each

- What is meant by the term clearance pocket ?
- 12. Briefly discuss the effect of volumetric efficiency on engine/compressor performance.
- Name any four greenhouse gases.
- Elaborate the function of a clamp meter.
- 18. What is Hazard? Write down one hazard that is related to the installation of an AC.

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Turn Over

Section-III

(Short Answer Type Questions-II)

3 each

- 16. Do you prefer working with others in a team or alone? Give two examples of your team work.
- 17. How do electric and magnetic circuits compare and contrast ?
- What are the seven basic logic gates ? Explain two of them.
- 19. Explain 'Bypass Capacity Control' in reference to a compressor.
- 20. What are the important characteristics of a refrigerant ?

Section-IV

(Long Answer Type Questions)

5 each

Explain how different values of an entrepreneur help him to achieve his goal. Also explain the importance of understanding the market before starting a new enterprise. https://www.jkboseonline.com

Or

Define the term 'Green Economy'. What are the main sectors of green economy?

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State and explain maximum power transfer theorem. Deduce mathematical expression.

Or

Explain the working of D.C. motor in detail.

23. What is a CRO ? Draw the block diagram of CRO and explain its working.

Or

Explain the working of a PN junction diode both in forward and reverse blas. Draw V-I characteristics also.

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