



Roll No:

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

BTECH**(SEM V) THEORY EXAMINATION 2023-24****ELECTRICAL STANDARDS AND ENGINEERING PRACTICES****TIME: 3 HRS****M.MARKS: 100****Note: 1.** Attempt all Sections. If require any missing data; then choose suitably.**SECTION A****1. Attempt all questions in brief.****2 x 10 = 20**

Q no.	Question	Marks	CO
a.	What is IEC standard in electrical?	2	CO1
b.	What are some of the risks of not identifying and not complying with relevant electrical standards?	2	CO1
c.	What are the IS codes- Indian Standards applicable for electrical works?	2	CO2
d.	Which standards are used for cables?	2	CO2
e.	What are the standards for transformers?	2	CO3
f.	What are the standards for LV and HV switchgears?	2	CO3
g.	What is the NBC standard?	2	CO4
h.	What are derating factors?	2	CO4
i.	What is CEA Regulations in electrical equipment sizing?	2	CO5
j.	How do you calculate electrical load capacity?	2	CO5

SECTION B**2. Attempt any three of the following:****10 x 3 = 30**

a.	Which electrical standards are used in India? Explain in detail.	10	CO1
b.	Write a short note on IS-7098 (Part-1):1988 standards for crosslinked polyethylene insulated PVC sheathed cables.	10	CO2
c.	Based on IS 2026-1 (2011) standard explain the concept of Temperature-rise, Insulation levels and dielectric tests and Ability to withstand short circuit for power transformers.	10	CO3
d.	What is the National electric Code of India? Also, explain the main purpose of the NEC.	10	CO4
e.	Write the CEA regulations for load estimation, sizing and selection for cables and switchgears.	10	CO5

SECTION C**3. Attempt any one part of the following:****10 x 1 = 10**

a.	Write a short note on electrical drawings/layouts and the process of cost estimation.	10	CO1
b.	Write a short note on general engineering design practices, selection of voltage level and the role of electrical studies and design.	10	CO1

4. Attempt any one part of the following:**10 x 1 = 10**

a.	Write the scope, requirements and recommendations for interior illumination based on IS 3646-1 (1992): Code of Practice.	10	CO2
b.	Write a short note on IS 325 (1996) standards for Three-phase induction motors.	10	CO2



PAPER ID-310883

Printed Page: 2 of 2

Subject Code: KEE054

Roll No:

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

BTECH**(SEM V) THEORY EXAMINATION 2023-24****ELECTRICAL STANDARDS AND ENGINEERING PRACTICES****TIME: 3 HRS****M.MARKS: 100****5. Attempt any *one* part of the following:****10 x 1 = 10**

a.	What are the most common instrument transformers? Explain in detail.	10	CO3
b.	Explain IS-8623 standard for LV & HV switchgears.	10	CO3

6. Attempt any *one* part of the following:**10 x 1 = 10**

a.	What is the difference between earthing and lightning arrester? Explain with the help of suitable diagrams.	10	CO4
b.	Write a short note on the hazard classification of electrical equipment.	10	CO4

7. Attempt any *one* part of the following:**10 x 1 = 10**

a.	Write the CEA regulations for sizing and selection of transformers.	10	CO5
b.	What are the CEA regulations 2010? Explain in detail.	10	CO5

QP24DP1_290

/ 29-01-2024 13:45:51 | 117.55.242.132