# C14-EE-**501**

## 4636

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# BOARD DIPLOMA EXAMINATION, (C-14) MARCH/APRIL-2019 DEEE - FIFTH SEMESTER EXAMINATION

### ELECTRICAL UTILIZATION

Tim	ne:3 Hours	Max.Marks:80
	PART-A	10x3=30M
Ins	<b>structions:</b> 1) Answer all questions. Each question carr 2) Answer should be brief and straight to th not exceed five simple sentence.	ies three marks.
1.	Define i) MHCP ii) MSCP	11/2+11/2
2.	Define luminous intensity and lumen	11/2+11/2
3.	What do you understand by local lighting and general l	ighting. 1½+1½
4.	State the requirements of good heating element.	3m
5.	List the applications of direct resistance heating.	3m
6.	Write any three advantages of welding.	3m
7.	Write about working of a refrigerator.	3m
8.	Name four basic stages of a refrigeration cycle.	3m
9.	List the disadvantages of CFLs.	3m
10.	Write a brief note on energy storage devices.	3m
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#### PART-B

- Instructions: 1) Answer any five questions and each question carries ten marks.
  2) The answer should be comprehensive and the criteria for valuation is the content but not the length of the answer.
  11 a) State and explain inverse law of illumination 5m
  - b) A lamp of 1000CP is hung 10m over the centre of floor of a hall 15m square. Find the illumination at the point immediately below the lamp and at corners by neglecting reflection from walls and ceiling

5m

12. A lamp having M.S.C.P of 800 is suspended at a height of calculate

- i) Total flux of light 10m
- ii) The illumination directly below the lamp at the working plane.
- iii) Illumination at point 2.5 m away on the horizontal plane from vertically below the lamp
- 13. Explain the construction and operation of coreless induction furnace.
- 14. a) Explain the principle of induction heating.5mb) Draw the neat sketch of a Ajax wyatt furnace and explain about it
- 15. Explain the principle of operation of welding transformer with neat sketch
- 16. a) Compare resistance welding and arc weldingb) List the advantages of electronic control of welding5m
- 17. a) What do you understand by air conditioning5m
  - b) Write brif notes on various components of an air conditioner 5m
- Draw and explain about working of illumination control using LDR.
   10m

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