KERALA GOVERNMENT CERTIFICATE EXAMINATION IN
ELECTRICAL ENGINEERING—JUNE, 2006

POWER AND ESTIMATION

(Time : 3 hours

(Maximum marks : 100)

PART—A

Entrepreneurship, Energy Conservation and Information Technology

(Answer in one or two sentences)

I
1. Who is an entrepreneur?
2. Write any two reasons that an entrepreneurship needs planning.
3. Write any two requirements for an entrepreneur.
4. List any four high level languages.
5. How the energy can broadly classify?
6. Write the two languages required to operate a computer.
7. Name any two output devices in a computer.
8. List out any four types of non-conventional energy.
9. What is an artificial intelligence?
10. Define the machine language. (10x2=20)

PART—B

(Answer five questions)

II Draw the schematic diagram of a modern steam power station and explain its operation. 16

OR

III Discuss the disadvantages of low power factor and also explain the various methods of improvement of power factor. 16

IV With a neat diagram, show the various parts of a high voltage, single core cable. 16

OR

V Explain the construction and working of an HRC fuse with 'dripping device'. 16

VI Draw the diagram of a mercury vapour lamp and explain its working. 16

OR

VII Describe the construction and working of a PMMC voltmeter with a neat figure. 16
VIII List out the quantity of materials required for carrying out a plate earthing installation as per IE rules. 

Marks 16

IX Estimate the quantity of materials required for giving an OH service connection to a residential building. The connection to be given is LT supply for a total connected load of 3 kW from an electric post 40 mts away from the building.

Marks 16

X Prepare the quantity of materials required for the installation of a 15 hp, 415 V, 3 phase, 50 Hz, squirrel cage induction motor in an Oil Mill of size $8 \times 4.5$ mts.

Marks 16

OR

XI Write short notes on:
(a) Permissible voltage variations in LT and HT supply system.
(b) Neutral Earthing.
(c) Standard sizes of switch fuse units and their ratings.
(d) ELCB.

Marks 16