Half-Yearly Examination—2013 Class XI (English Version) Subject : ICT (Theory)

Time: 3 Hours

Full Marks - 75

Section-A

(Answer any four of the following question) $4\times10=40$

- What is global village? Explain the global village with perspective of education, medical and employment.
- What is nanotechnology? Describe the fields of uses of nanotechnology.
- 3. What is ICT? Discuss the impact of ICT on society.
- Convert (১২৩.১২৫)₂₀ into binary, (602.52)₈ into hexadecimal, and (A9C.6B)₁₆ into decimal.
- What is logic gate? Describe the logic diagram of basic logic gates with truth table.
- a) Prove that B⊕C =BC+BC
 - b) Simplify: i) $\overline{X}.\overline{Y}$ (Z+ \overline{X}) ii) \overline{ABC} + \overline{ABC} + \overline{ABC} + \overline{ABC}

Section-B

(Answer any seven of the following question) $7 \times 5 = 35$

- What are advantages may have in the treatment using cryosurgery? Describe.
- What is space exploration? Describe the uses of ICT in space exploration.
- What is biometrics? Write the some Examples of behavioral biometrics and physical biometrics.
- 4. What is bioinformatics? Where and how bioinformatics are used in Bangladesh?
- Implement the EX-OR gate using basic gates.
- Write the De'Morgan Theorems for three variables and prove it.
- What is universal gate? Prove the universality of NAND gates.
- What is signed number? Subtract +8 from +12 using 2's complement.
- Describe briefly about artificial intelligence and robotics.
- 10. Write the full form: NASA, GPS, GMO, EBCDIC, ASCII

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