

## General Sc. & Ability 2014

### PART –II

Attempt only five questions: All questions carry equal marks

Q.2. Discuss the contributions of the Muslim Scientists in the development of Astronomy, Algebra and Trigonometry. (3, 3 ½, 3 ½ each)(10)

Q.3. Give brief answers to the following: (2 each) (10)

- away?
- (a) Why do we bring our hands close our mouth while shouting across to someone far away?
  - (b) Why do we lean forward while climbing a hill?
  - (c) Why does a swimming pool appear less deep than it actually is?
  - (d) Why cannot petrol fire be extinguished by water?
  - (e) Why do Australian celebrate their christmas during summer?

Q.4. Differentiate between: (2 each) (10)

- (a) Hypoglycemia and hyperglycemia
- (b) Renewable and non renewable energy resources
- (c) Lava and Magma (d) Mist and Fog (e) Lunar eclipse and solar eclipse

Q.5. Briefly Explain the working principle of the following (5 each) (10)

- (a) Radar (b) Microwave oven

Q.6. Give brief explanations for the following phenomena (2 each) (10)

- (a) While watching a cricket match we see the ball struck a moment before we hear the sound of the bat hitting the ball.
- (b) A ship though made largely of the steel, which is heavier than water, floats in water.
- (c) The color of the same cloth when seen in electric light appears different from the color when seen in day light.
- (d) Glass when heated cracks while metal does not.
- (e) Although each eye perceives a separate image, we do not see everything double.

Q.7. Write short NOTES on the following: (5 each) (10)

- (a) Environmental effects of the fertilizer use (b) Global warming

Q.8. Differentiate between: (2 each) (10)

- (a) Smog and smoke (b) Radiotherapy and chemotherapy
- (c) Diastolic and systolic blood pressure (d) Infection and Allergy
- (e) Conductors and insulators

Q.9. Briefly explain the function of the following in human body: (2 ½ each) (10)

- (a) Kidneys (b) Lymphatic system
- (c) Thyroid Gland (d) Pituitary gland

