2016M.sc.4th Semester ExaminationBIOLOGICAL ANTHROPOLOGYPAPER-ANT-402(B)
Full Marks: 50
Time : 2 HoursThe figures in the right-hand margin indicate full marks.Candidates are required to give their answers in theirown words as far as practicable.
Ilustrate the ansivers wherever necessary.
Answer Q. No. 1 and three questions from the rest.

1. Answer any five questions from the following : ..... $5 \times 2$
(a) What is adolescent and growth spurt ?
(b) What is a crost sectional growth study?
(c) What is FM
(d) Differentiate between growth and development.
(e) What is age of menaricle?
(f) What is meant by stunting?
(g) What is aging ?
(h) What is MUAC ?
2. Describe in details the environmental factors affecting growth.
3. The mean weight ( kg ), height $(\mathrm{cm})$ and body mass index $\left(\mathrm{kg} / \mathrm{m}^{2}\right)$ of $7-11$ year old children are given below :

| Age | Weight (kg) |  | Height (cm) |  | BMI (kg/m ${ }^{2}$ ) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (years) | Boys | Girls | Boys | Girls | Boys | Girls |
| 7 | 17.6 | 17.8 | 109.1 | 109.9 | 13.2 | 13.7 |
| 8 | 19.5 | 18.6 | 119.6 | 117.6 | 13.3 | 14.1 |
| 9 | 20.2 | 21.8 | 123.4 | 119.9 | 13.9 | 14.9 |
| 10 | 24.8 | 24.6 | 128.6 | 126.4 | 14.6 | 15.6 |
| 11 | 25.2 | 25.2 | 129.1 | 132.9 | 14.8 | 15.1 |

(a) Draw a suitable graph based on these data. $2 \times 3$
(b) At which ages were the maximum increase in height, weight and BMI observed? (Each sex separately).

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(c) At which ages in the maximum sex differences in these three variables observed?
4. A girl has a height of 124.3 cm . She weights 49.6 kg . The mean (sd) of height and weight of the reference population are $133.2(1.9) \mathrm{cm}$ and $52.1(1.2) \mathrm{kg}$, respectively.
Evaluate her nutrition status based on :
(a) height
(b) weight.
5. Define growth. Discuss velocity curve and acceleration curve of growth.
$2+4+4$
6. What is meant by secular trend ? Discuss secular trend in menarche with special reference to India. 4+6
(Internal Assessment - 10 Marks)

