Nirmala Memorial Foundation College of Commerce and Science
Kandivali-(East), Mumbai - 400101

Ist Term Assignments

Health and Physical Education

College Name:_____

Subject:_____

Students Name: _____

Std:_____ **Stream:**_____ **Roll No.:**_____

Students Individual Information:

Father's Name: _____ **Mother's Name:**_____

Date of Birth :_____

Weight: _____**kg** **Height:** _____**meter**

Chest :_____**c.m.** **Waist:** _____**c.m.**

Shoulder:_____ **c.m.**

_____

Sports Teacher's Sign

Subject: Physical Training

FYJC

Health Related Physical Fitness (HRPF)

Notes for Ist Term End Assignment

1) **Cardiovascular fitness** is the ability of the heart (cardio) and Circulatory system (vascular) to supply oxygen to muscles for an extended period of time. Cardiovascular is also called cardio respiratory (lungs) fitness.

2) **Muscular strength** refers to the maximum amount a muscle can exert against an opposing force. Fitness usually consists of a one – time maximum lift using weights (bench press, leg press etc.)

3) **Muscular endurance:** Muscular endurance is the ability of a muscle or muscle group to do repeated contractions against a less – than – maximum resistance for a given period of time. This is in contrast to muscular strength, which is the greatest amount of force that a muscle or muscle group can exert in a single effort.

4) **Flexibility:** Flexibility refers to the ability of your joints to move through a full range of motion.

5) **Body Composition:** In physical fitness, **body composition** is used to describe the percentages of fat, bone and muscle in human bodies. Because muscular tissue takes up less space in our body than fat tissue, our body composition, as well as our weight, determines leanness. Two people of equal height and body weight may look completely different from each other because they have a different body composition

There are many different ways of measuring the amount of body fat or body composition, which vary in accuracy, ease of measurement, costs and equipment requirements.

(a) **Waist to hip ratio (WHR):** Divide your waist measurement (at the narrowest point) by your hip measurement (at the widest point). In general, a healthy waist to hip ration is below 0.9 for men and below 0.8 for women.

In general, a waist size over 40" for men or over 35" for women is associated with greater health risk.

$$WHR = \frac{Waist}{Hip}$$

(b) **Body Mass Index (BMI)** is defined as the individual's body mass divided by the square of his or her height. The formulae universally used in medicine produce a unit of measure of kg/ m^2. BMI can also be determined using a BMI chart, which displays BMI as function of weight (horizontal axis) and height (vertical axis) using contour lines for different values of BMI or colors for different BMI categories.

$$BMI = \frac{mass(kg)}{(height)(m)^2} = \frac{weight}{(height)(m)^2}$$

BMI result categories are:

- Less than 18.5 : underweight
- Between 18.5 and 24.9: normal weight
- 5 to 29.9: overweight
- 30 or over: obesity

(c) **Target Heart Rate** (THR) is a desired range of heart rate reached during aerobic exercise which enables one's heart and lungs to receive the most benefit from workout. This theoretical range varies based mostly on age; however, a person's physical condition, gender, and previous training also are used in the calculation. Below are two ways to calculate one's THR. In each of these methods, there is an element called "intensity" which is expressed as a percentage. The THR can be calculated as a range of 60% - 80% intensity.

$$For\ Girls\ THR = \frac{60}{100} \times (220 - age) = ?$$

$$For\ Boys\ THR = \frac{80}{100} \times (220 - age) = ?$$

(1) Height - Weight proportion (BMI - Body Mass Index)

This is a method of determining an individual's physical condition. The BMI is determined using the following formula:

***Body Mass Index** (BMI) = $\frac{weight\ in\ kgs}{(height\ in\ meters)^2}$

Example: Suppose an individual weighs 67 kgs and his/her height is 152 cms or 1.52 meters, then the BMI of that individual is calculated as follows:

***Body Mass Index** (BMI) = $\frac{67}{(1.52)^2} = \frac{67}{2.3104}$

BMI = 28.99 which means the person is overweight.

The physical condition of an individual is determined by comparing his/her body mass index with the chart given below:

Boys (BMI)	Level	Girls (BMI)
20.7	Less Weight	19.1
20.8-26.5	Ideal Weight	19.2-25.9
26.5-27.9	Slightly overweight	25.9-27.4
27.9-31.2	Overweight	27.4-32.3
31.2-45.5	Excessively overweight	32.3-44.9
45.5	Obese state	44.9

Assignment No.1

Calculate Self Body Mass Index **(5 Marks)**

Weight: ..... Kg. Height: ..... Meter

BMI = $\frac{Weight}{(height)^2}$

..... = ... BMI= .....

Result: My BMI is_____ hence I am in the _____ level.

Assignment No.2

Calculate self Waist-Hip Ratio – WHR **(5 Marks)**

WHR= Circumference of waist
.....
Circumference of hips

Example: Say, if an individual's waist measures 93.5 cms and the hips measures 101 cm then that individual's WHR would be

$\frac{93.5}{101}$ = It means the individual is fat.

An individual having a WHR of 0.7 is considered normal. If the WHR is more, then that individual is considered fat or obese.

Assignment No. 3

Calculate self Target Heart Rate (THR) **(5 Marks)**

$$For\ Girls\ THR = \frac{60}{100} \times (220 - age) = ?$$

$$For\ Boys\ THR = \frac{80}{100} \times (220 - age) = ?$$

Nirmala Memorial Foundation College of Commerce and Science
2014-15

F.Y.J.C. COMMERCE/ SCIENCE

Ist Term Examination – Physical Education

Question Bank

Q.1 Fill in the blanks:-

1. The fastest century in one day international cricket was scored by _____.

   (Ricky Ponting, **Shahid Afridi**, Sachin Tedulkar)

2. The first batsman to score 10,000 runs in test cricket was _____.

   (Michael Clarke, Kevin Peterson, **Sunil Gavaskar**)

3. The first Indian to secure a grand master norm in chess is _____.

   (**Vishwanathan Anand**, Gopinathan Anand, Dibyendu Barua)

4. The length of a cricket pitch is _____.

   (24 yards, 23 yards, 21 yards, **22 yards**)

5. Indira Gandhi gold cup is awarded for _____

   (Men's Hockey, **Women's Hockey**, under 19 Girls Hockey)

6. The term 'Jockey' is associated with _____.

   (**Horse racing**, Bike racing, car racing)

7. The National Game of America is _____.

   (basket ball, **base ball**, foot ball)

8. Major Dhyan Chand is also known as _____.

   (Wizard of cricket, **Wizard of hockey**, wizard of basket ball)

9. "Black pearl' was the name given to _____.

   (Ronaldo**, Pele**, Ramesh Krishnan)

10. The duration of an international football match is _____.

    (46 minutes, **90 minutes**, 91 minutes, 95 minutes)

11. The term ‘free kick’ is used in _____.

    (Kabbadi, **Football**, Volley ball)

12. Milkha Singh was popularly known as the

    (Run Sikh, **Flying Sikh**, Jumping Sikh)

13. In Basket ball, each team consists of_____ players

    (Ten, **Five**, Four)

14. Andy Flower is associated with _____.

    (**Cricket**, Hockey, Chess, Football)

15. The number of players in a base ball team is _____.

    (ten, **nine** , seven, two)

16. Dhanraj Pillay is associated with _____.

    (**Hockey**, Football, Carrom)

17. Davis cup is associated with_____.

    (**Tennis**, cricket, football)

18. Prakash Padukone was a famous player of _____.

    (Chess, **Badminton**, Tennis)

19. The terms ‘Breast stroke’ is associated with _____.

    (Boxing, **Swimming**, Judo)

20. Wimbledon trophy is associated with _____.

    (table tennis, **lawn tennis**, cricket)