**Senior Secondary Physical Education Elective**

**Part 5 Physiological Basis for Exercise and Sport Training**

**Worksheet 4**

A soccer coach has prepared the following year training plan for the ABC university soccer team. The inter-university competition was scheduled at February to April next year.

| **July to October** | **November to January** | **February to April** | **May to June** |
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| **Program A** –  Distance running exercise  3 sessions weekly  70-85% of HRmax  30-40mins | **Program B** – Interval training  100m sprinting  3 sessions weekly  95%  Rest time – 40s  12 reps | Drills training + competition | **Program C** |

Question 1:

State the target energy system in Program B going for?

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| Anaerobic glycolysis system or lactate system |
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Question 2:

Another basketball coach would use the same year training plan for the ABC university basketball team. What suggested changes should be made on Program B according to the specificity principle of training? Why?

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| Distance of sprinting could reduce and the rest time could also reduce accordingly. The size of basketball court is smaller than soccer and so the sprinting distance for basketball player should be shorter. |
| No of reps can increase. Basketball player will have high number of repeated sprinting in the real basketball game when compared with soccer. |
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Question 3:

Please prepare the exercise prescription of Program C with continuous training mode using FITT principle.

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| F: 2 sessions weekly |
| I: 40-60% HRmax (or low intensity) |
| T: minimum 30mins |
| T: running, swimming, rowing, cycling, etc. |

References:

McArdle, W.D., Katch, F.I., & Katch, V.L. (2000). Essentials of exercise physiology (2nd ed.). Philadelphia: Lippincott Williams & Wilkins.

Åstrand, P.O., et al. (2003). Textbook of work physiology: Physiological bases of exercise. Champaign, IL: Human Kinetics

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