



UNIVERSITY OF THE PUNJAB

M.A./M.Sc. Part – II Supply – 2020 & Annual – 2021

Roll No.

Subject: Sport Sciences & Physical Education

Paper: I (Method of Research in Sports)

Time: 2 Hrs. 30 Min. Marks: 52

ATTEMPT THIS (SUBJECTIVE) ON THE SEPARATE ANSWER SHEET PROVIDED

Note: Attempt any FOUR Question.

2. Define research; give its significance for physical education.
3. Describe probability sampling methods.
4. Discuss the Characteristics of good researcher.
5. What is meant by a research tool, identify two research tools?
6. Discuss different types of variables.
7. Give the steps of developing a research proposal.
8. Describe the need and important of a hypothesis is doing give its types.



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M.A./M.Sc. Part – II Supply – 2020 & Annual – 2021

Subject: Sport Sciences & Physical Education

Time: 30 Min. Marks: 18

Paper: I (Method of Research in Sports)

Roll No. in Fig.

Roll No. in Words.

Signature of Supdt.:

Attempt this Paper on this Question Sheet only.

Division of marks is given in front of each question.

This Paper will be collected back after expiry of time limit mentioned above.

Q.1. Encircle the right answer cutting and overwriting is not allowed. (18x1=18)

1. The main purpose of research in physical education is to _____
(a) Increase social status of an individual (b) Synopsis of Research
(c) Research paradigm (d) Research design
2. What is the name of the conceptual framework in which the research is carried out
(a) Research hypothesis (b) Synopsis of Research
(c) Research paradigm (d) Research design
3. _____ is referred to as “the father of research on teaching” ?
(a) N.L Gage (b) David Berliner
(c) Egon Brunswik (d) Donald T. Campbell
4. What is the main role of research in education?
(a) To upsurge one's social status. (b) To increase one's job prospects.
(c) To augment one's personal growth (d) To help an applicant in becoming a renowned educationalist.
5. The data of research is _____
(a) Qualitative only (b) Quantitative only
(c) Both A & B (d) Neither A nor B
6. How is random sampling helpful?
(a) Reasonably accurate (b) An economical method of data collection
(c) Free from personal biases (d) All of the above
7. Tippit table refers to as _____
(a) Table of random digits (b) The table used in sampling methods
(c) The table used in statistical investigations (d) All of the above
8. How to judge the depth of any research?
(a) By research title (b) By research duration
(c) By research objectives (d) By total expenditure on research
9. Which of the following is not the method of Research?
(a) Survey (b) Historical
(c) Observation (d) Philosophical
10. Authenticity of a research finding is its
(a) Validity (b) Objectivity
(c) Originality (d) All of the above
11. Which one is called non-probability sampling?
(a) Quota sampling (b) Cluster sampling
(c) Systematic sampling (d) Stratified random sampling
12. Research problem is selected from the standpoint of
(a) Social relevance (b) Financial support
(c) Researcher's interest (d) Availability of relevant literature
13. Books and records are the primary source of data in _____
(a) Clinical Research (b) Historical Research
(c) Laboratory Research (d) Participatory Research
14. How can we enhance the research objective?
(a) By making it more valid (b) By making it more reliable
(c) By making it more impartial (d) All of the above
15. Action-research can be understood as _____
(a) A longitudinal research (b) An applied research
(c) A kind of research being carried out to solve a specific problem
(d) All of the above
16. Which of the following is not an essential element of report writing?
(a) Research Methodology (b) Reference
(c) Conclusion (d) None of these
17. Testing hypothesis is a _____
(a) Inferential statistics (b) Descriptive statistics
(c) Data preparation (d) Data analysis
18. Survey research studies _____
(a) Events (b) Processes
(c) Population (d) Circumstances



UNIVERSITY OF THE PUNJAB

M.A./M.Sc. Part – II Supply 2020 & Annual – 2021

Roll No.

Subject: Sport Sciences & Physical Education
Paper: II (Measurement and Evaluation in Sports)

Time: 2 Hrs. 30 Min. Marks: 52

ATTEMPT THIS (SUBJECTIVE) ON THE SEPARATE ANSWER SHEET PROVIDED

Note: Attempt any FOUR Question.

- Q. No. 2. Define measurement also describe the need and importance of measurement in the field of sports. (13)
- Q. No. 3. Define General Motor Ability also explain different component of motor ability. (13)
- Q. No. 4. What is rating? Write a detailed note on the rules for the use of rating scales. (13)
- Q. No. 5. Find out the Co-efficient of correlation from the given data: (13)

X	25	29	30	30	31	29	32	34
Y	20	28	24	29	23	26	29	31

- Q. No. 6. Describe different Methods of Grading Scale and also write down the purpose and criteria of grading. (13)
- Q. No. 7. Define statistics also discuss the scope of Statistics in Sports. (13)
- Q. No. 8. Enlist different skill tests of Hockey also explain Goal Scoring Test in Hockey with examples. (13)



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M.A./M.Sc. Part – II Supply 2020 & Annual – 2021

Subject: Sport Sciences & Physical Education

Time: 30 Min. Marks: 18

Paper: II (Measurement and Evaluation in Sports)

Roll No. in Fig.

Roll No. in Words.

Attempt this Paper on this Question Sheet only.

Division of marks is given in front of each question.

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Signature of Supdt.:

Q.1. Encircle the right answer cutting and overwriting is not allowed. (9x2=18)

- (i) Which type of evaluation is used to monitor the learning process:
A) Summative evaluation B) Diagnostic evaluation
C) Formative evaluation D) Placement evaluation
- (ii) The main purpose of the evaluation is to make judgments about educational:
A) Age B) Time period
C) Quality D) Quantity
- (iii) From the following the right sequence is:
A) Test, measurement, assessment, Evaluation
B) Evaluation, Test, Measurement, Assessment
C) Test, assessment, Evaluation, Measurement
D) Assessment, Measurement, Evaluation, Test
- (iv) Name the test to determine the cardio-vasccax efficiency
A) Harvard test B) Coopers test
C) Margaria step test D) Bench test.
- (v) A treadmill is used for measuring
A) Speed B) Power
C) Work done in running D) Force.
- (vi) In which case we should not use test?
A) When the number is small B) When variance is large
C) When distribution is normal D) None of the above.
- (vii) The evaluation which is undertaken during the course of training is called
A) Summative evaluation B) Creative evaluation
C) Formative evaluation D) Normative evaluation
- (viii) Which of the following tests is not used to measure muscular endurance?
A) Sit up B) Flexed arm hang
C) Squat thrust D) Distance walk.
- (ix) Assessments of flexibility is done with the help of
A) Dynamometer B) Tens meter
C) Goniometry D) Cyber.



UNIVERSITY OF THE PUNJAB

M.A./M.Sc. Part – II Supply 2020 & Annual – 2021

Roll No.

Subject: Space Science (New Course)

Paper: II (Electrodynamics and Space Plasma)

Time: 3 Hrs. Marks: 100

NOTE: Attempt only FIVE questions in all by selecting at least TWO questions from each section. All questions carry equal marks.

SECTION -I

- Q-1 State and explain Maxwells equations and physical significance of each equation. 20
- Q-2 Calculate the expression for electromagnetic field tensor. 20
- Q-3 Discuss the solution of electromagnetic wave equation in conducting media. 20
- Q-4 Find the solution of electromagnetic wave equation by using the concept of scaler and Vectors. 20

SECTION-II

- Q-5 Calculate the expression for plasma frequency. 20
- Q-6 What happen when Plasma particles are under uniform electric and magnetic field. 20
- Q-7 Discuss motion of charge particle in gravitational field. 20
- Q-8 What is concept of upper hybrid frequency. 20
- Q-9 State and explain fluid equation of motion. 20



UNIVERSITY OF THE PUNJAB
M.A./M.Sc. Part – II Supply – 2020 & Annual – 2021

Roll No.

Subject: Sport Sciences & Physical Education
Paper: III (Exercise Physiology)

Time: 2 Hrs. 30 Min. Marks: 52

ATTEMPT THIS (SUBJECTIVE) ON THE SEPARATE ANSWER SHEET PROVIDED

SUBJECTIVE TYPE

Note: Attempt any FOUR Question.

- Q.No.2 Write importance of Exercise Physiology in Sports era?
- Q.No.3 Define Blood pressure? Explain it in detail?
- Q.No.4 Explain hemoglobin dissociation curve? Also write down its importance in sports?
- Q.No.5 Write a comprehensive note on doping?
- Q.No.6 Describe in detail how air pollution effected sports performance?
- Q.No.7 write a detailed note on stoke and temperature regulation?



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M.A./M.Sc. Part – II Supply – 2020 & Annual – 2021

Subject: Sport Sciences & Physical Education
Paper: III (Exercise Physiology)

Time: 30 Min. Marks: 18

Roll No. in Fig.

Roll No. in Words.

Attempt this Paper on this Question Sheet only.

Division of marks is given in front of each question.

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Q.1. Encircle the right answer cutting and overwriting is not allowed. (9x2=18)

(i) The word stretching is defined as:

(a) Range of motion (b) elasticity (c) Flexibility (d) All of them

(ii) The Primary function of Heart is to _____

(a) Check partial pressure (b) Bring blood inside (c) Pump blood (d) none of them

(iii) The total time taken (approximately) of survival for athlete in 15 to 21 degree temp is _____

(a) 1-3 hours (b) 2-4 hours (c) 1-6 hours (d) none of the above

(iv) The product of heart beat and stroke volume is called _____

(a) Heart braker (b) Heart examiner (c) Cardic output (d) Cardic stoke (e) all of them

(v) The outer most layer of the heart is called?

(a) peri cardium (b) endo Cardium (c) Mayo cardium (d) None of them

(vi) The following are the functions of connective tissues

(a) Storing energy (b) Providing a framework for the body (c) a and b (d) All of them

(vii) Which nervous system controls skeletal muscle

(a) Sympathetic (b) Parasympathetic (c) Afferent (d) Somatic

(viii) Blood returning to the heart from the pulmonary circuit first enters the:

(a) Left ventricle (b) Left Atrium (c) Right atrium (d) Right Ventricle

(ix) The function of the ventricles in the heart is to _____

(a) Pump blood (b) Push blood (c) transfer blood (d) Right Ventricle



UNIVERSITY OF THE PUNJAB
M.A./M.Sc. Part – II Supply – 2020 & Annual – 2021

Roll No.

Subject: Sport Sciences & Physical Education
Paper: IV (Fitness & Wellness)

Time: 2 Hrs. 30 Min. Marks: 52

ATTEMPT THIS (SUBJECTIVE) ON THE SEPARATE ANSWER SHEET PROVIDED

SUBJECTIVE TYPE

Note: Attempt any FOUR Question.

- Q.2. Write the short answers of the following: (13)**
- What is meant by Health and Fitness?
 - List down the 6 dimensions of wellness as described by Hettler?
 - What do you mean by FITT formula?
 - Differentiate between Warm up and Cool down?
 - Define Physical Activity Pyramid?
 - Differentiate between General Exercise Guidelines and Specific Exercise Guidelines?
- Q.3. What are the Health Risk Factors? Describe in detail with suitable examples? (13)**
- Q.4. What is Warm-up? Explain the types of Warm-up? What are its benefits and what are the consequences of not doing Warm-up? (13)**
- Q.5. What is Body Mass Index (BMI)? Briefly define the test to measure the BMI? (13)**
- Q.6. "How exercise leads our life towards better & healthier life"? Describe in detail? (13)**
- Q.7. Write a Lifestyle Modification Plan? Also discuss the 5 "W" Plan in detail? (13)**
- Q.8. Define Physical Activity? Also describe the Progressive Overload in detail? (13)**



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M.A./M.Sc. Part – II Supply – 2020 & Annual – 2021

Subject: Sport Sciences & Physical Education

Time: 30 Min. Marks: 18

Paper: IV (Fitness & Wellness)

Roll No. in Fig.

Roll No. in Words.

Attempt this Paper on this Question Sheet only.

Division of marks is given in front of each question.

This Paper will be collected back after expiry of time limit mentioned above.

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Q#1. Circle the right answer from the given option.

(18 x 1 = 18)

- i. The capability of the individual to meet the varied physical and psychological demands made by a sporting activity.
a. Physical Fitness b. Optimal Health c. Fitness d. None of the above.
- ii. The health risk factor are _____
a. High Blood Pressure b. Smoking c. Diabetes d. All of the above.
- iii. A person should exercise for _____ minutes.
a. 10 to 15 minutes b. 30 to 45 minutes c. 60 to 90 minutes d. 1 hour
- iv. _____ can be also called as the house of all diseases.
a. Extra Workout b. Less Activity c. Illness d. Obesity
- v. The 15 min Exercise Plan for Cardiovascular Endurance is _____
a. Running on the Spot b. Side Jumping c. Lower Body Sit-ups d. Both (a) & (b)
- vi. A person should drink water _____ minutes after every meal.
a. 10 minutes b. 20 minutes c. 30 minutes d. 40 minutes
- vii. Obesity are of _____ types.
a. 5 b. 3 c. 4 d. 2
- viii. The treatment of Obesity includes _____
a. Diet Treatment b. Medication c. Surgery d. All of the Above
- ix. Stress can be handled in following ways _____
a. Find the cause of the solution b. Accept the worse that can happen c. Laughter Therapy
d. Both (a) & (b)
- x. A person do warm up in order to _____
a. Prepares the body for exercise b. Reduce the risk of injury c. Stretches the muscles d. Both (a) & (b)
- xi. The _____ is an activity that prepares the muscles for work.
a. Warm up b. Cool down c. Work out d. None of the above.
- xii. _____ Principle placing increasing amounts of stress on the body causes adaptations that improve fitness.
a. Specificity-Adapting to type of Training b. Progressive Overload-Adapting to Amount of Training
c. Reversibility-Adapting to a Reduction in Training d. None of the above.
- xiii. Body Composition can be measured in _____ ways.
a. 6 b. 4 c. 3 d. 1
- xiv. _____ is the proportion of bone, muscle and fat in an athlete.
a. Flexibility b. Strength c. Cardiovascular Fitness d. Body Composition
- xv. The Equipment used for measuring the Body Mass Index (BMI) is _____
a. Height Scale or Tape Measure b. Weight Scale c. Skin Fold d. Both (a) & (b)
- xvi. _____ is the ability to change the position of your body quickly and to control body's movements.
a. Anaerobic Power b. Speed c. Agility d. None of the above.
- xvii. The common examples of Acute Injury are _____
a. Strains b. Sprains c. Fractures d. All of the above.
- xviii. Dieters limit _____ to varying degrees and eat more protein.
a. Carbohydrates b. Vitamins c. Minerals d. None of the above.



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M.A./M.Sc. Part – II Supply – 2020 & Annual – 2021

Roll No.

Subject: Sport Sciences & Physical Education
Paper: VI (e) / V-N (Science of Track & Field) (Common)

Time: 2 Hrs. 30 Min. Marks: 52

ATTEMPT THIS (SUBJECTIVE) ON THE SEPARATE ANSWER SHEET PROVIDED

SUBJECTIVE TYPE

Note: Attempt any FOUR Question.

Q No 2. How would you draw out the measurements from the process of one straight length of 84 m to mark a standard athletic track? (13)

Q No 3. a) Define the Ancient Olympic Games.

b) Write down the advantages of the modern Olympic Games as compared to Ancient Olympic Games. (3+10)

Q No 4. a) Define the middle distance.

b) Write down the techniques which help to increase the performance of the middle distance runners. (3+10)

Q No 5. How would you make a complete program of athletic competition at university level of two days with three sessions? (13)

Q No 6. Write down the duties of the following officials in the Athletic competition

- I. Referee
 - II. Chief judge of position holder
 - III. Chief time keeper
- (5+4+4)

Q No 7. a) Write down the rules of throwing the shot put.

b) Explain marking the circle along with sector of throwing the shot put. (6+7)

Q No 8. Explain in detail the role of Barren-D-Coubertin in the P.T.O reconstruction of modern Olympics. (13)



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Time: 30 Min. Marks: 18

Paper: VI (e) / V-N (Science of Track & Field) (Common)

Roll No. in Fig.

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Q.1. Encircle the right answer cutting and overwriting is not allowed. (6+6+6=18)

Part – A

1. Weight of javelin (men)
 - a) 600 gr
 - b) 800 gr
 - c) 700 gr
2. Weight of javelin (women)
 - a) 500 gr
 - b) 600 gr
 - c) 400 gr
3. Length of javelin (men)
 - a) 2.8-2.9
 - b) 2.6-2.7
 - c) 2.7-2.8
4. Length of javelin (women)
 - a) 2.4-2.5
 - b) 2.2-2.3
 - c) 2.3-2.4
5. Weight of shot put (women)
 - a) 5000 kg
 - b) 4000 kg
 - c) 3000 kg
6. Weight of shot put (men)
 - a) 8000 kg
 - b) 7.260 kg
 - c) 7000 kg

Part – B

7. Weight of discuss (men)
 - a) 2500 kg
 - b) 2000 kg
 - c) 3000 kg
8. Weight of discuss (women)
 - a) 1500 kg
 - b) 1000 kg
 - c) 2000 kg
9. How many sprint events in athletics
 - a) 5
 - b) 3
 - c) 4
10. How many middle distance events
 - a) 3
 - b) 2
 - c) 4
11. How many long distance events
 - d) 4
 - e) 7
 - f) 5
12. How many Pentathlon
 - a) 6
 - b) 5
 - c) 7

Part – C

13. How many events in Decathlon
 - a) 10
 - b) 8
 - c) 9
14. How many lines in standard athletic track
 - a) 8
 - b) 9
 - c) 10
15. The shape of athletic track
 - a) round
 - b) oval
 - c) spherical
16. Width of a lane
 - a) 1.23 m
 - b) 1.22 m
 - c) 1.24 m
17. Width of a line of track
 - a) 6 cm
 - b) 5 cm
 - c) 7 cm
18. Color of the line of the track
 - a) yellow
 - b) white
 - c) green