



COMMON PRE-BOARD EXAMINATION 2022-23

CLASS: XII



Subject: PHYSICAL EDUCATION (048)

ANSWER KEY/MARKING SCHEME

Q. No.	ANSWER		MARKS DISTRIBUTION
1	(a) Camel pose		1
2	(b) Social character		1
3	(d) Law of action reaction		1
4	(b) Transverse fracture		1
5	(a) Isometric		1
6	(b) Short term endurance		1
7	(b) Respiratory system		1
8	(c) Both (A) and (R) are true and (R) is the correct explanation of (A).		1
9	(a) Assertion		1
10	(c) Calcium		1
11	(b) Energy giving foods		1
12	(d) Pancreas		1
13	(c) Planning		1
14	(b) 15		1
15	(a) Physical benefits		1
16	(b) I-3, II-4, III-1, IV-2		1
17	(c) I-3, II-1, III-4, IV-2		1
18	(c) Amenorrhea		1
19	Description of any four from the following or similar related to question: ➤ Joint structure and capsule – The greater the stability of a joint, the less the flexible it will be ➤ Length of muscle at rest – Inactive people have shortened muscle length which reduces flexibility level. ➤ Muscle temperature – Warming of the muscle to 37°C and stretching will increase flexibility. ➤ Age – Lose flexibility with age. ➤ Gender – Females are more flexible than males. ➤ Body build – Leaner people are generally more flexible. ➤ Injury – Prior injuries reduces flexibility level. ➤ Skin and bone resistance ➤ Disease		0.5X4=2
20	INTROVERT	EXTROVERT	1+1=2
	<ul style="list-style-type: none">• Shy• Socially withdrawn himself/ herself.• Tendency to talk less.• Appear to be self-centered.• Unable to adjust easily in social situation.• Future oriented	<ul style="list-style-type: none">• Friendly.• Talkative.• Social in nature.• Prefer to make social contacts.• Generous.• Sportive.• Courageous.	

	<ul style="list-style-type: none"> • Very sensible and rigid in ideas. 	<ul style="list-style-type: none"> • Show interest in present reality than in future. • Express their feeling openly. • Take quick decision. • Not affected easily by difficulties. 	
21	INTERVAL TRAINING METHOD <ul style="list-style-type: none"> • Introduced by BIKILA, a famous athletic coach of Finland in 1920. • JETOPACK gave it named as ‘Interval Training’. • It is a training method in which there are <u>short interval in between the running phases</u>. • Total workout is split into small periods of effort and recoveries. • Based on the principle of effort, incomplete recovery and effort again. • The <u>interval in between running help trainee to overcome from the stress of running for a short period of time</u>. • It is a method through which we can make <u>more rapid improvement in Oxygen Utilization Capacity (VO2max.)</u> than by continuous running. • Develop endurance in short duration. However, effects of training may lost quickly, if training is not maintain regularly. 	2	
22	FIRST AID FOR FRACTURES: <ul style="list-style-type: none"> • Steady the injured part with some support to prevent any further harm. • Immobilize the affected part by using bandage or splint. The bandage should not be applied on the point of fracture. It should not be tight but firm enough to prevent harmful movements. • Take the injured person to the hospital immediately. • For transporting the injured person to the hospital, a sitting position is desirable but in some cases, especially in case of fracture in lower extremity bones, he/she must be transported in a lying position on a stretcher. 	2	
23	GENERAL EQUIPMENT USED FOR MEASURING SAI KHELO INDIA FITNESS TEST: <ol style="list-style-type: none"> 1. Weighing Machine, Stadiometer/Measuring Tape pasted on a wall – for BMI 2. Stop watch – for Flamingo test, Partial curl ups 3. Cushion Surface/ Gym mat – for Push ups 4. Sit and Reach box with the following dimensions: 12” x 12” (sides) 12” x 10” (front and back) 12” x 21” (top) – for Sit and Reach test 5. Stopwatch, whistle, marker cone, lime powder, measuring tape – for 600 m Run/Walk 6. Measuring tape or marked track, stopwatch, cone markers – for 50 m Dash 	2	
24	FUNCTIONS OF FATS: <u>SOURCE OF ENERGY</u> - Fats produces more energy than carbohydrates. 1gm of fats produces 9.3 calorie whereas, carbohydrates produces 4.1 calorie. Fats are the concentrated source of energy and in time of increase energy demand they produces energy. <u>INSULATION</u> - Fats are stored under the skin and act as a insulating layer which does not allow heat to escape and maintain body temperature. <u>PROTECTION</u> - Fats form a protective shock absorbing cushion around the number of body organs like eye ball, kidneys and ovaries.	0.5X4=2	

	<p><u>STRUCTURE OF CELL MEMBRANE</u> – It form a part of phospholipid molecule of cell membrane.</p> <p><u>CARRIER OF VITAMINS</u> - In the diet, fat is a carrier for the fat-soluble vitamins A, D, E and K, and supports their absorption in the intestine.</p>	
25	<p>PARALYMPICS</p> <ul style="list-style-type: none"> Paralympics is actually ‘Parallel Olympics’ because it organized in a same year of Summer Olympics at the same host city. Sir Ludwig Guttmann started the Paralympics games in 1948. It is a major multi-sports event involving athletes with different range of physical and mental disabilities. In 1948, Sir Ludwig Guttmann decided to promote the rehabilitation of the soldiers who suffered serious physical injuries in world war. He organized a multi-sports event between several hospitals and named it as “Stoke Mandeville Games”. This event received a huge appreciation and it became an annual festival for the next 12 years. In 1960, at Rome Guttmann brought 400 such athletes to compete in the parallel Olympic. This was considered as the first official Paralympics. Since then the Paralympic games have held in every Olympic year. International Paralympic Committee (IPC) is responsible for organizing Paralympic games. It is now an agreement between International Olympic Committee (IOC) and International Paralympic Committee (IPC) that every Olympic games hosting country will also organize Paralympic games. 	3
26	<p>PROTEIN</p> <ul style="list-style-type: none"> Protein are growth promoting foods. It form the basic structure of all living cells. Basic structure of protein is the chain of organic molecules called ‘amino acids’ which contain carbon, hydrogen, oxygen, nitrogen and sometime sulphur. <p>TYPES OF PROTEINS</p> <p>There are around 20 amino acids joined together in varying sequences to form different kinds of proteins. There are nine amino acids which cannot be synthesized by the body; these are called Essential Amino Acids (EAA). These have to be supplied in the diet. Others are non- essential amino acids as these can be synthesized in the body.</p> <p>SOURCES</p> <p>FIRST CLASS OR COMPLETE PROTEIN SOURCES</p> <ul style="list-style-type: none"> Sources in which all essential amino acids are present in high proportion. Example – Animal product like meat, milk, eggs, fish. Soya protein is also considered as complete protein source <p>SECOND CLASS OR INCOMPLETE PROTEIN SOURCES</p>	1+1+1=3

	<ul style="list-style-type: none">Sources in which some or other essential amino acids are deficient.Example – Plant products like walnut, almond, coconut, seed like mustard.Cereals (like corn), pulses, wheat and some vegetables <p>Apart from these source there is another source called Complementary proteins: These refer to two or more foods containing incomplete proteins that people can combine to supply complete protein. Examples include rice and beans or bread with peanut butter.</p>																
27	I-ROUND 7 – BYE 6 – 1 5 – 2 4 – 3 VI-ROUND 2 – BYE 1 – 3 7 – 4 6 – 5	II-ROUND 6 – BYE 5 – 7 4 – 1 3 – 2 VII-ROUND 1 – BYE 7 – 2 6 – 3 5 – 4	III-ROUND 5 – BYE 4 – 6 3 – 7 2 – 1	IV-ROUND 4 – BYE 3 – 5 2 – 6 1 – 7	V-ROUND 3 – BYE 2 – 4 1 – 5 7 – 6	3											
28	CAUSES OF AGGRESSION IN SPORTS <ul style="list-style-type: none">Type of sports – contact sports (Rugby, American Football)Hostile crowdProvoking act by the crowd or by the opponents.Poor performance by self or by team mates.Grudges with rivals.Importance of event - final of the tournament or knockout match lead to more excitement.Unexpected loss in any match.Unfair decision during match					0.5X6=3											
29	<table><tr><td></td><td>SPRAIN</td><td>STRAIN</td><td>ABRASION</td></tr><tr><td>INTRO</td><td>A sprain is an acute soft tissue injury of the ligaments within a joints, often caused by a sudden movement abruptly forcing the joint to exceed its functional range of motion</td><td>An injury to a muscle or a tendon</td><td>An abrasion is a type of open wound that’s caused by the skin rubbing against a rough surface. It may be called a scrape or a graze. When an abrasion is caused by the skin sliding across hard ground,</td></tr><tr><td>SYMPTOMS</td><td>Pain, swelling, Joint disability and difficulty in bearing weight</td><td>Pain or tenderness, Redness or bruising, Limited motion, Muscle spasms Swelling,</td><td><ul style="list-style-type: none">A first-degree abrasion involves only epidermal injury.A second-degree abrasion involves the epidermis as well as the dermis and may bleed slightly.A third-degree abrasion involves</td></tr></table>					SPRAIN	STRAIN	ABRASION	INTRO	A sprain is an acute soft tissue injury of the ligaments within a joints, often caused by a sudden movement abruptly forcing the joint to exceed its functional range of motion	An injury to a muscle or a tendon	An abrasion is a type of open wound that’s caused by the skin rubbing against a rough surface. It may be called a scrape or a graze. When an abrasion is caused by the skin sliding across hard ground,	SYMPTOMS	Pain, swelling, Joint disability and difficulty in bearing weight	Pain or tenderness, Redness or bruising, Limited motion, Muscle spasms Swelling,	<ul style="list-style-type: none">A first-degree abrasion involves only epidermal injury.A second-degree abrasion involves the epidermis as well as the dermis and may bleed slightly.A third-degree abrasion involves	1+1=1=3
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			Muscle weakness	damage to the subcutaneous layer and the skin and is often called an avulsion	
30	OSTEOPOROSIS - Osteoporosis is a bone disease that causes a loss of bone density, which increases your risk of fractures. SYMPTOMS - receding gums, weakened grip strength, weak and brittle nails, Hunched or stooped posture (Kyphosis), Back pain specially at lower back and tenderness or softness of bones may feel, Frequent fractures CAUSES – Low Calcium diet, Lack of physical activities, Family history, Gender (Female are simply more likely to develop osteoporosis), Ethnicity (White and Asian people are more likely to be affected by osteoporosis) TREATMENT – Take a healthy diet containing more calcium and sources of Vitamin D, do regular exercise.				0.5+1+1+0.5=3
31	A) 4 matches in first round Or Total 6 rounds B) 4 matches will be played in 4 th round C) 14 bye in lower half Or Zero bye D) Upper half – 18 and lower half - 17				1X4=4
32	A) 45® B) Less C) More Or horizontal D) More				1X4=4
33	A) Any two from the following or similar related to question: Physical development, improvement in confidence, social development, skill learning, reduces depression, improve mental health and behaviour B) Environment for the activities must be clean, silent C) Equipment must be as per the need of the children with special needs D) Lifelong habits				1X4=4
34	ASANAS FOR PREVENTION OF DIABETES: Tadasana, Katichakrasana, Pavanmuktasana, Matsayasana, Halasana, Pachimottansana, Ardha – Matsyendrasana, Dhanurasana, Ushtrasana (Explanation of the procedure of administration any one of the above mentioned asanas along with two contraindications)				2+2+1=5
35	PURPOSE OF RIKLI & JONES SENIOR CITIZEN FITNESS TEST 1. Chair Stand Test - To determine lower body strength. 2. Arm Curl Test - To determine upper body strength. 3. Chair Sit and Reach Test - To determine lower body flexibility. 4. Back Scratch Test - To determine upper body flexibility 5. Eight Foot Up and Go Test - To determine physical mobility (power, speed, agility and balance). 6. Six Minute Walk Test - To determine aerobic endurance (Explanation of procedure of any one test from the above)				(0.5X6)+2=5
36	COMPONENTS OF SPEED (Any two from the following): <u>Reaction Ability:</u> Ability to react effectively and quickly to any signal or action. This ability is of two types – a. <i>Simple:</i> Ability to react on known signal. b. <i>Complex:</i> Ability to react on unexpected signal. <u>Acceleration Ability:</u> It is the ability to achieve maximum speed from stationary position or from low speed state.				1+2+2=5

	<p>For example – achieving maximum possible speed from start of sprint or achieving maximum possible speed from jogging.</p> <p><u>Movement speed:</u> It is the ability of a muscle or a group of muscles to contract at maximal speed in a single course of movement.</p> <p><u>Locomotor ability:</u> It is an ability to maintain maximum speed for maximum time of distance or it is an ability to sustain maximal speed by repeating a same pattern of physical movement of faster rate.</p> <p><u>Speed Endurance:</u> Ability to perform movement with high speed under the condition of fatigue.</p> <p>ACCELERATION RUN METHOD</p> <ul style="list-style-type: none"> • Two parallel lines are drawn at the distance of 30-40 mts. • An athlete start from one line from stationary position and tries to achieve maximum speed at the earliest and finishes the specified distance at that maximum speed. • Such runs are repeated number of times with suitable short interval in between the runs. <ul style="list-style-type: none"> • <u>POINTS TO REMEMBER</u> • Distance of running should be set in such a way that trainee should attain his maximum speed and maintain it for some time. • Must have sufficient rest periods in between two runs for required recovery. • Correct running action should be practiced after proper warming up to avoid injury. <p>PACE RUNS</p> <ul style="list-style-type: none"> • Proper warming up through stretching or through jogging. • Set a distance or duration of running which is based on athlete's ability and by keeping in view of the distance of competition to be participate in. • Program of running should be decided by qualified coach. • Speed throughout the running must be constant and should be around 60 to 80% of the maximum ability of the trainee. • Speed should be maintained in such a way that it can be same till finishing. • This process is repeated 3-4 times with a suitable interval in between running. The rest period should be enough to give a proper recovery to the trainee. • For the purpose of pace running, electronic treadmill can be used. • A proper supervision is also desirable. 	
37	<p>FRICITION - Friction is a force that opposes the motion between two surfaces that are in touch.</p> <p>TYPES OF FRICTION</p> <p>STATIC FRICTION – It occurs when the force applied to an object does not cause the thing to move.</p> <p>KINETIC FRICTION - It occurs when force is applied to an object and the object moves. It includes three different types of friction:</p> <p>(a) Sliding friction: Pushing an object across a surface. This is when two bodies are in contact and one body moves on the surface of the other body by sliding on it or rubbing over the surface. Example – skating on ice, planting a pole in the pole vault event and skiing or sliding weight</p> <p>(b) Rolling friction: It occurs between wheels and a surface. When two bodies are in contact and one body rolls over the other, it is referred to as rolling friction. eg., when a hockey or cricket ball is hit it begins to move ahead and roll on the ground.</p>	1+2+2=5

After sometimes it stops rolling due to the friction force, this type of friction is often seen in sports. eg., Roller skates and skateboards

(c) **Fluid friction** - It opposes the motion of objects traveling through the fluid (gas, air, and water).

ADVANTAGES IN SPORTS

a) In Athletics, the shoes (spikes) are designed to increase friction so that better speed can be generated.

b) For grip – holding bat, racket, catching the ball

c) For maintaining balance

d) for reducing the speed in cycling

DISADVANTAGES

a) Generate heat

b) Friction make movement difficult

c) Excess friction means extra energy