

**BHARTIYA SKILL DEVELOPMENT UNIVERSITY****School of Health Care and Paramedics Skills****Session: 2019-20 Summer****B. Voc. Program, 1st Semester****2nd In-Sem. Examination****Course Code: SHP1103****Time: 1 Hour****Course Name: Body mechanics and Positioning****Max. Marks: 20****Instructions:**

1. **SECTION-A:** 05 objective type questions, each question carries 01 mark
2. **SECTION-B:** 03 short answer type questions, each question carries 02 marks
3. **SECTION-C:** 03 essay type questions, each question carries 03 marks.

SECTION-A**[5x1=Marks]**

1. **Mobility is known as.**
 - a. Unable to freely movement
 - b. Restricted the movement
 - c. Able to freely movement
 - d. Both b and c
2. **Kinaesthetic is known as...**
 - a. Study fracture
 - b. Emotional support
 - c. Reflection of light
 - d. Study of perception movement
3. **Rheumatoid arthritis is known as...**
 - a. Inflammation of the bone
 - b. Inflammation of joint
 - c. Both a and b
 - d. Inflammation of the limb
4. **What do you mean by ergonomics?**
 - a. Science of fitting the job to the worker
 - b. Science of hard worker
 - c. Science of employee training
 - d. Science of movement
5. **Where do the majority of older people fall?**
 - a. Walking on the street
 - b. Walking around the house
 - c. In hospital and nursing home
 - d. All of above

SECTION-B**[3x2=6 Marks]**

- 1) Define Kinaesthetic.
- 2) What do you mean movement? Write down the three aims of ergonomics.
- 3) Write down the prevention of gout.

SECTION-C**[3x3= 9 Marks]**

- 1) How to organization ergonomics in the workplace?
- 2) Describe the influencing factors of movement.
- 3) Define rheumatoid arthritis. Write down the four causes and symptom of rheumatoid arthritis.

K. Koeni

Sat - ①

**BHARTIYA SKILL DEVELOPMENT UNIVERSITY****School of Health Care and Paramedics Skills****Session: 2019-20 Summer****B. Voc. Program, 1st Semester****2nd In-Sem. Examination****Course Code: SHP1103****Time: 1 Hour****Course Name: Body mechanics and Positioning****Max. Marks: 20****Instructions:**

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SECTION-A**[5x1=Marks]**

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SECTION-B**[3x2=6 Marks]****1) Define Kinaesthetic.**

Kinaesthetics refers to the study of the perception of movement. It is concerned with contact and perception. Kinaesthetics favors natural, original and harmonious sequences of movements and promotes health and independence.

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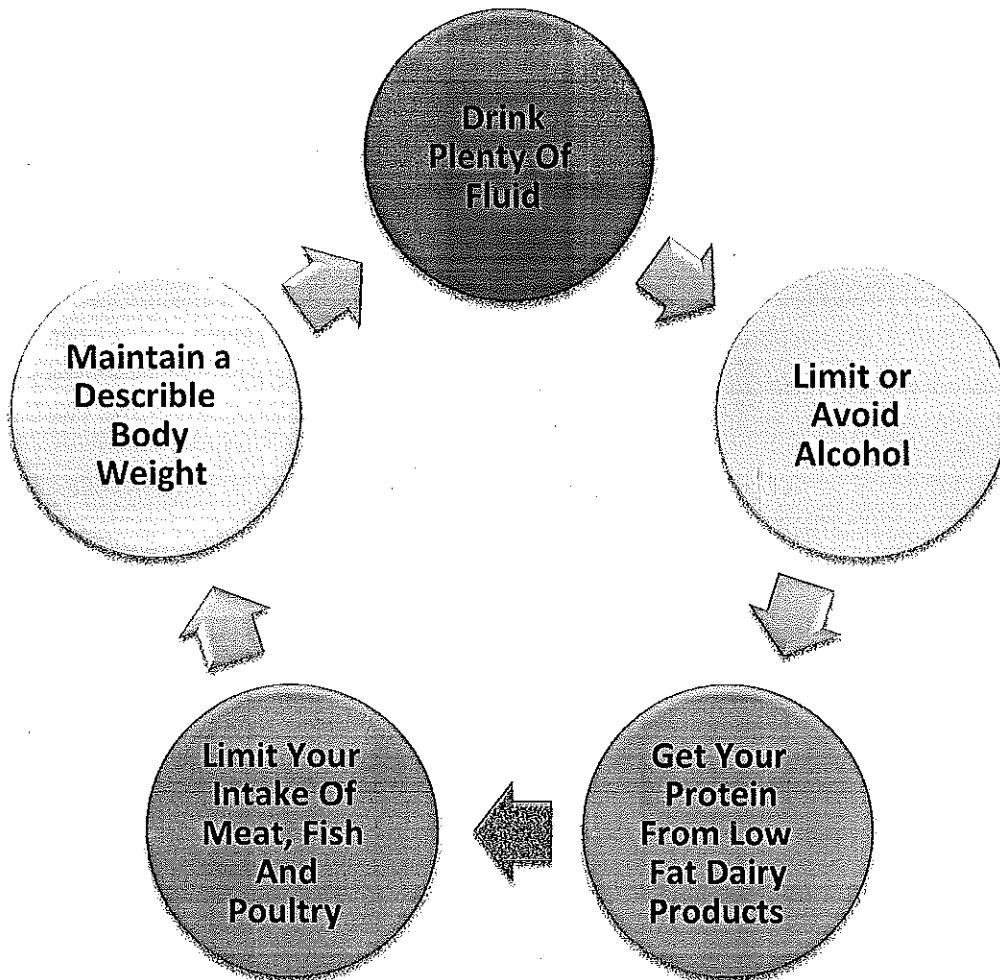
2) What do you mean movement? Write down the three aims of ergonomics.

Movement is important to everything we do: we need to be able to move to care for ourselves, eat, keep ourselves busy, breathe and take responsibility for our own safety. It is impossible to communicate without movement as we require a degree of mobility for the purposes of both verbal and nonverbal communication. Perception also becomes impossible without movement.

Aims of ergonomics

- Avoid direct or long-term damage caused by work□
- Ensure work can be done in a way that reflects an individual 's circumstances□
- Ensure working conditions do not have a negative impact on people 's mental health or well-being.

3) Write down the prevention of gout.



**BHARTIYA SKILL DEVELOPMENT UNIVERSITY****SECTION-C****[3x3= 9 Marks]**

1) How to organization ergonomics in the workplace?

Ergonomics in the workplace – organizational possibilities

Topic	Example / Remark
Work Place As regards organizing the workplace, consideration is given to body mass, posture, body strength and freedom of movement	If you use the Computer in the ward office to document nursing routines, you should be able to adopt a correct sitting position. The tabletop should be level with your elbows. Forearms should lie as flat as possible on the desk. Shoulders should not be hunched up. Make sure your eyes are a suitable distance (50—80 Cm) from the screen.
Work equipment The way we use aids, tools, desks, office chairs and the like is important.	A good Chair needs to be height-adjustable with a backrest. It should be possible to vary the angle of the seat.
Working environment Checks are performed for noise emissions, mechanical vibrations, climate, lighting and color scheme.	Room lighting must be bright enough for you to read without straining and see what is on the keyboard. The screen must be set up to avoid any annoying reflections from the lighting.
Working hours In terms of working hours, it is a case of Checking the rules regarding breaks and any flexible hours or shift arrangements.	Regular short breaks and a longer break for lunch provide opportunities to relax. Standing up, going to the Cafeteria and engaging with other people are good ways to revive both body and mind.
Work organization In terms of work organization, it is a question of defining the content of work, divide group work and ensuring people take ownership.	The work expected from a person should be clearly defined. Failure to do so will lead to disagreements, overlap and dissatisfaction.
Back-friendly working practices A large proportion of employees in nursing and care suffer from back pain. The risk of developing a disc problem (eg. herniated disc) — mainly in the lower back — is significantly higher in this profession than in others.	In nursing, moving not only means encouraging and supporting clients with their movements but also moving ergonomically, or physiologically, as a nurse. It is important to make sure that you stay healthy. Nurses backs are subjected to a range of stresses. It is therefore important to be aware of your own responsibility to keep your back healthy.

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<p>Correct lifting</p> <p>Avoid lifting where possible. If you do need to lift a bad, however, use the power in your legs to perform the lift and help relieve your back. Bend your knees and hips. Position yourself close as possible to the bad you want to lift. To lift the bad, push up from a squatting position using your legs and keep your back straight. Avoid making jerky or swinging movements when lifting.</p>	<p>Increase your stability by standing with your feet shoulder-width apart if possible. Make sure that you do not twist your spine sideways when lifting.</p>
<p>Correct carrying</p> <p>Carry the bad close to your body. The bad's center of gravity should be vertically above the feet if possible. Distribute the bad symmetrically, i.e. evenly between the left and right side.</p>	<p>Use a trolley to transport loads if possible rather than carrying them.</p>
<p>Adjusting the working height</p>	<p>When working low down, It is advisable to sit if at all possible (eg. to measure blood pressure).</p>
<p>Ensure that you set each work surface to the right working height (eg. bed level with hips). If the working height cannot be modified, it is important not to work with a hunched back</p>	

2) Describe the influencing factors of movement.

Influencing Factors

<p>Biological factors</p>	<p>The age or stage of development of a person will influence their mobility. As children practice their motor skills, they become familiar with their environment, which is an important prerequisite site for developing their mental faculties. In addition, the body's ability to move depends on a person's general condition, muscle strength and state of health. The sick or those suffering with pain or disability, as a result, for example, of malnutrition, impaired cardiovascular performance or immobility, will be restricted in their mobility.</p>
<p>Psychological factors</p>	<p>A person's mood and emotions may be reflected in their posture and movement. For example, happiness and self-confidence may be expressed in an upright gait. Depressive feelings, stress or anxiety influence the normal pattern of movement and can be detected in people's expressions. Some people are naturally more active, while other's appetite for movement may be less pronounced.</p>
<p>Sociocultural factors</p>	<p>An individual's family and social life can influence their decision to undertake specific movement-related activities, with, for example, children of sporty parents being encouraged to prefer sporting activities. A person's occupation is another important factor. Those who sit down at work will have limited opportunities for movement, while those working in the great outdoors will find themselves moving quite a lot. Today's multicultural age provides us with a chance to experience the peculiarities of individual cultures via the media, from our neighbors or on our holidays. Different forms of movement are expressed in things like dance.</p>

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Environmental factors	A person 's environment and living conditions will influence their behavior in terms of movement. Children living in cramped conditions with no real opportunity to spend time outside will not have much opportunity to indulge their natural appetite for movement. Those with restricted mobility are dependent on aids like a lift in an apartment block in order to leave their home. Climate and weather can also play a major role in people 's movement.
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3) Define rheumatoid arthritis. Write down the four causes and symptom of rheumatoid arthritis.

Rheumatoid arthritis is a chronic inflammatory disease of the connective, supporting and muscle tissue. It tends to follow an episodic course and symptoms mainly affect the joints.

Causes

- Bacteria & Virus
- Age
- Family history
- Obesity
- Environmental exposure

Symptoms

- Stiff joints for more than 15 minutes in the morning .
- Inflammation affecting 3 or more joints (arthritis), often following a symmetrical pattern with both sides involved at the same time .
- Swelling of joints
- Overheating of joints
- Joint pains at night and in the morning .
- Tiredness
- Exhaustion Long-term
- Atrophy of the associated muscles due to lack of joint activity .
- Visible changes and misalignment of joints



**BHARTIYA SKILL DEVELOPMENT UNIVERSITY****School of Health Care and Paramedics Skills****Session: 2019-20 Summer****B. Voc. Program, 1st Semester****2nd In-Sem. Examination****Course Code: SHP1104****Time: 1 Hour****Course Name: Nutrition & Elimination I****Max. Marks: 20****Instructions:**

1. **SECTION-A:**05 objective type questions, each question carries 01 mark
2. **SECTION-B:**03 short answer type questions, each question carries 02 marks
3. **SECTION-C:**03 essay type questions, each question carries 03 marks.

SECTION-A**[5x1=5 Marks]**

1. **Haematuria is known as...**
 - a. Urine with blood
 - b. Urine with pus
 - c. Yellow colour urine
 - d. All of above
2. **When should a tube feeding be recommended?**
 - a. When a person has an inadequate oral nutrient intake for 2 - 4 days
 - b. When a person has severe diarrhoea.
 - c. When GI tract works, but patient cannot meet nutrient needs orally.
 - d. When a person has severe dysphagia.
3. **Which of these foods is a good choice when you have diarrhoea?**
 - a. Bananas
 - b. Rice
 - c. Plain toast
 - d. All of above
4. **How much required of water per day in new-born babies?**
 - a. 20-50 ml
 - b. 100-150 ml
 - c. 50-100 ml
 - d. 40-70 ml
5. **Which of these fluids is best to drink to prevent dehydration when you have diarrhoea?**
 - a. Water
 - b. Broth
 - c. Juice
 - d. Both A and B

SECTION-B**[3x2=6 Marks]**

- 1) Draw the diagram of food pyramid.
- 2) What do you mean bland diet?
- 3) Define dysphagia. Write the four nursing measure of dysphagia.

SECTION-C**[3x3= 9 Marks]**

- 1) Weight of a man is 45 kg and height is 148 cm. Calculate his BMI using the formula and indicate the condition
- 2) Define Cystitis. Write down the four causes, symptom and nursing measure of cystitis.
- 3) Define Excretion. Explain the principle for using excretion aids

K. Yoceri



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School of Health Care and Paramedics Skills

Session: 2019-20 Summer

B. Voc. Program, 1st Semester2nd In-Sem. Examination

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SECTION-A**[5x1=Marks]**

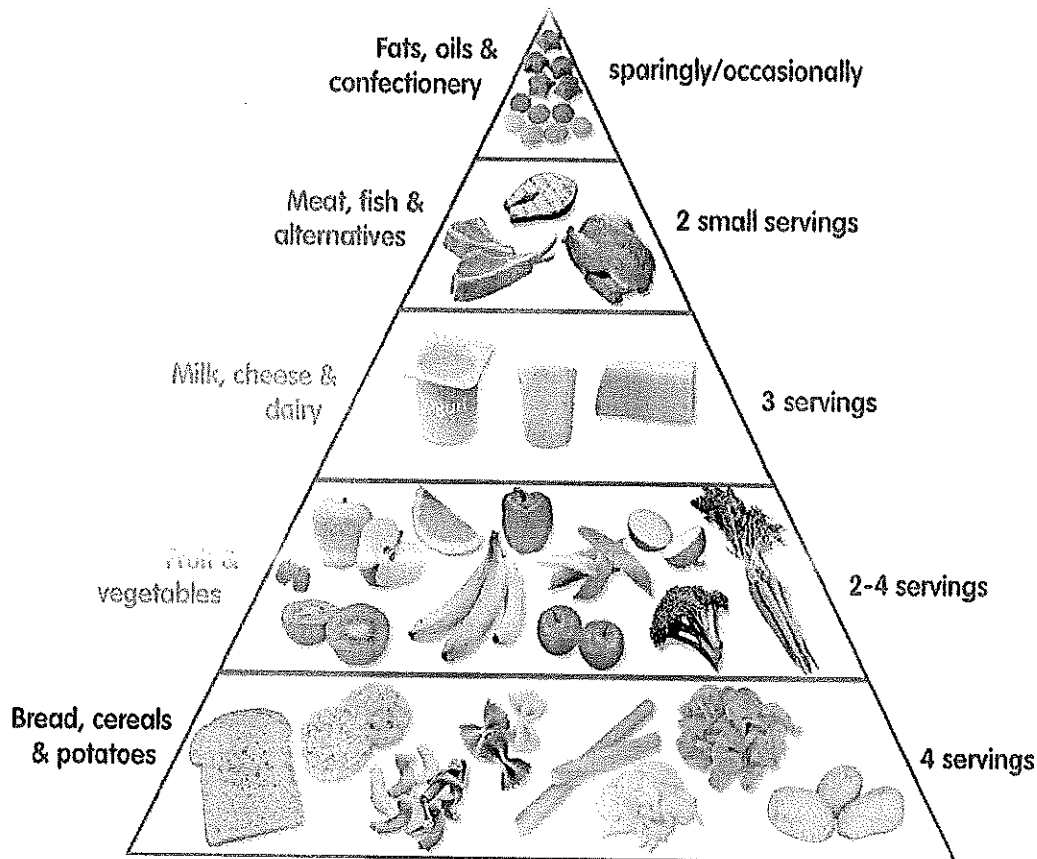
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SECTION-B

[3x2=6 Marks]

1) Draw the diagram of food pyramid.



2) What do you mean bland diet?

A light balanced diet is designed to help take the strain off individual digestive organs or the entire metabolism. The difference between a light balanced diet and a standard balanced diet lies in the selection and preparation of foods. The light balanced diet must contain sufficient quantities of all nutrients. In order to relieve strain on the digestive organs and the metabolism.

3) Define dysphagia. Write the four nursing measure of dysphagia.

Dysphagia is difficulty in swallowing when eating.

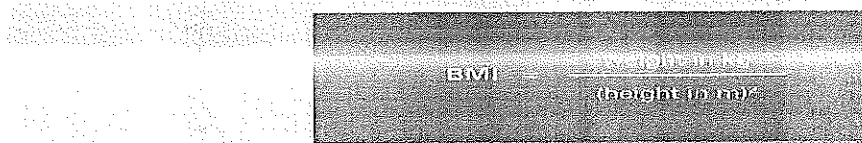
- Foods are offered which are soft but still encourage chewing.
- Small, frequent meals offered, people with swallowing difficulties tire easily when eating.
- Drinks are always offered at mealtimes too, should not be given until the end of the meal.
- The dishes should not be overly browned or spiced, foods of this kind irritate the mucous membranes and can lead to coughing and choking.
- No unsuitable dishes are offered, such as
 - dry, crumbly foods, e.g. biscuits, rusks
 - glutinous foods, e.g. fresh bread
 - foods with stringy fibres, e.g. green beans, rhubarb, celery
 - foods which involve different consistencies, e.g. soup with croutons

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SECTION-C

[3x3= 9 Marks]

- 1) Weight of a man is 45 kg and height is 148 cm. Calculate his BMI using the formula and indicate the condition.



$$\text{BMI} = 45 / 2.96 = 15.20$$

The condition is malnutrition

- 2) Define Cystitis. Write down the four causes, symptom and nursing measure of cystitis.

Cystitis is an infectious inflammation of the urinary bladder.

Causes

It is estimated that 1 woman in 3 will suffer with cystitis at least once in her life. The reasons are as follows:

- The fact women have a short urethra means germs are better able to reach the urinary bladder.□
- In women, the opening of the urethra is closer to the anal area, which means intestinal germs may enter the urethra via a smear infection. This is why it is important always to work from the front backwards when cleaning the anal area following a bowel movement.
- Sexual intercourse is one of the more common causes of cystitis (honeymoon cystitis). Bacteria may also reach the bladder when someone inserts a tampon.
- Pregnancy and childbirth facilitate access for germs.□
- Estrogen deficiency during and after the menopause favors the proliferation of germs.

Both genders may experience cystitis as a result of urinary obstructions caused by urinary stones or narrowing of the urethra

Symptoms

The mucosa in the bladder responds by becoming red, swollen and hypersensitive. The extension that occurs during filling is experienced as a stimulus and emptying is duly triggered. Common symptoms are pain during urination, pollakiuria and nocturia. Heavily inflamed and slightly bloody mucosa will lead to hematuria. It is not unusual to experience pain in the lower abdomen too (above the symphysis). Fever does not occur with uncomplicated urinary tract infections. Episodic bouts of fever should raise suspicions of pyelonephritis or urosepsis.

Nursing Measures

For cystitis, the following points should be observed:

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Sufficient liquid	The bacteria are rinsed with the increased urine by a high amount of drinking (at least 3-4 litres per day). In the case of patients with heart problems, it is absolutely necessary to discuss with the doctor beforehand how much the amount of drinking should be, since a high amount of drinking may aggravate heart disease.
Local warmth, e.g. by a heat bottle can relieve discomfort.	If possible, the client should always go to the toilet when she feels urination, so that the bacteria can be washed out. Otherwise there is a risk of an ascending infection. For elder or not mobile patients, a toilet chair can be helpful. The pool is unfavourable as it is more difficult to empty the bladder on the pool.

3) Define Excretion. Explain the principle for using excretion aids.

The process of eliminating or expelling of waste material from body.

Principles for using aids

Accompanying people to the toilet. When accompanying patients to the toilet, please bear in mind the following:

- Ensure the toilet is clean and unoccupied. □ There must be enough toilet paper/water □
- The floor must be dry given the risk of falls. □
- Move any obstacles out of the way (furniture, cables, laundry trolleys etc.). □
- Depending on their mobility and resources help the patient get out of bed and stand up and assist them as they make their way to the toilet.
- Make sure footwear is safe. □
- Make sure the patient is dressed (shirt, dressing gown etc.). □
- Help the patient with undressing and sitting down on the toilet as required. □
- Provide assistance with intimate care or dressing as required.

11.6.1 Toilet attachment

A toilet attachment effectively raises the toilet bowl. This may be necessary or helpful for those who have undergone certain Operations (e.g. hip operation, spinal column operation) or older people whose hips are less mobile than before. The idea is to make it easier to sit down or stand up.

Commode (night commode)

A commode can be used for patients who are not very mobile because they are not able or allowed to walk very far. Some older patients may also find it easier to get up from a commode than a toilet (which is lower). In order to protect the person 's intimate sphere, a commode can be placed on a normal toilet or in the corner of the room where washing is performed. There are different versions of commodes. Some models have footrests. With this type, the client should be told not to stand up on their own or the commode may tip over and cause them to fall. As far using a commode is concerned, the same principles apply as when accompanying a patient to the toilet. Apart from respecting the individual 's intimate sphere and any hygiene provisions, the following points must also be considered:

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- The bowl must be slid in before using the commode (risk of injury, particularly for men, if this is slid in later or the bowl is removed).□
- Apply the brakes before any transfer.□
- Help the patient during the transfer depending on their mobility, resources and general condition.

Bedpan

Bedpans are sometimes also referred to as pots. Patients who are confined to bed use a bedpan for urinary and stool excretion. Please consider the following points when using a bedpan:

- Observe the principles of respecting the individual 's intimate sphere and any hygiene provisions.□
- Metal bedpans are cold, which may be unpleasant for the patient. To avoid this problem, you can rinse out the bedpan with warm water before use and leave it to dry.
- Given that bedpans can make beds dirty, it is a good idea to use some kind of covering as protection.
- When sliding a bedpan underneath a man, give him a urine bottle at the same time.□
- The odours and noises associated with excretion in the presence of other patients or nurses may lead to feelings of shame. Ask visitors and, where possible, other patients to leave the room. Make sure the bell is in easy reach and tell the patient they can call you back in. You may then leave the room out of respect for any feelings of shame.

Urine bottle

Urine bottles are used for men. Urine bottles have a closable cover and a scale showing how much urine they contain. Please consider the following points when using a urine bottle:

- Observe any hygiene provisions and the principles of respecting the individual 's intimate sphere.□
- Be sure not to leave the urine bottle wedged in place for too long to avoid pressure damage to the penis and testicles
- If a urine bottle is left wedged in place for too long, the kind of moist heat that favours infections may develop.
- Give the patient the opportunity to wash their hands.□
- Then bring the patient a clean, disinfected urine bottle, leaving it somewhere discreet but within easy reach of the patient.

Supporting measures for problems with excretion

Different measures will need to be implemented, depending on the problem concerned.

Support for difficulties with urinary excretion in bed

Patients prescribed bed rest must perform any excretion activities while in bed. This can have a negative impact on excretion because passing water in bed is unpleasant. It may be generally



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assumed that passing water is easier when sitting or standing compared with lying down. The following measures may promote micturition:

- sending other patients out of the room where possible□
- turning on the tap and leaving the water running□
- dipping hands into a washbasin containing warm or cool water□
- gently tapping the abdominal wall above the bladder with one's fingers
- leaving the patient alone where possible.
- If patients become increasingly restless, this may be a sign of urinary retention, which would also need to be clarified and treated by a specialist.

**BHARTIYA SKILL DEVELOPMENT UNIVERSITY****School of Health Care and Paramedics Skills****Session: 2019-20 Summer****B. Voc. Program, 1st Semester****2nd In-Sem. Examination****Course Code: SHP1106****Time: 1 Hour****Course Name: First Aid & CPR, Palliative Care****Max. Marks: 20****Instructions:**

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SECTION-A**[5x1=Marks]**

1. **How long should you check for breathing with performing CPR?**
 - a. Do not check for breathing, continue chest compression
 - b. 2 second
 - c. 5 second
 - d. No longer than 10 second
2. **You come upon a person who has lost a significant amount of blood, has a very pale skin colour, and is confused. What do you suspect the cause to be?**
 - a. Seizure
 - b. Stroke
 - c. Low blood sugar
 - d. Shock
3. **When you try to give an unresponsive adult a rescue breath and the chest does not appear to rise, what would you do next?**
 - a. Being CPR
 - b. Abdominal thrusts
 - c. Repeat the head tilt/chine lift maneuver and attempt the breath again
 - d. Call 108
4. **You're having lunch with a friend and he begins to choke on some food. He can't speak, breathe or cough it up. How can you help?**
 - a. Put your fingers down his throat to try to dislodge the obstruction
 - b. Do the Heimlich manoeuvre on him
 - c. Give up to five back blows between his shoulder blades
 - d. Call 108
5. **Your colleague is complaining of breathlessness and a tight pain in the chest. You suspect a heart attack. What should you do?**
 - a. Get him to lay down flat
 - b. Encourage him to stand up and move around slowly
 - c. Sit him a comfortable position
 - d. None of above

SECTION-B**[3x2=6 Marks]**

- 1) Draw the first aid overview flow chart.
- 2) Define dyspnoea. Explain the grades of dyspnoea.
- 3) What do you mean transport technique? Write down the name of transport technique method.

K. Koen



Registration No.:

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SECTION-C

[3x3= 9 Marks]

- 1) Define dressing. Explain the types of dressing
- 2) How to deal with an emergency?
- 3) Define burn. How to provide the first aid electrical burn victim?

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K. Koni

**BHARTIYA SKILL DEVELOPMENT UNIVERSITY****School of Health Care and Paramedics Skills****Session: 2019-20 Summer****B. Voc. Program, 1st Semester****2nd In-Sem. Examination****Course Code: SHP1106****Time: 1 Hour****Course Name: First Aid & CPR, Palliative Care****Max. Marks: 20****Instructions:**

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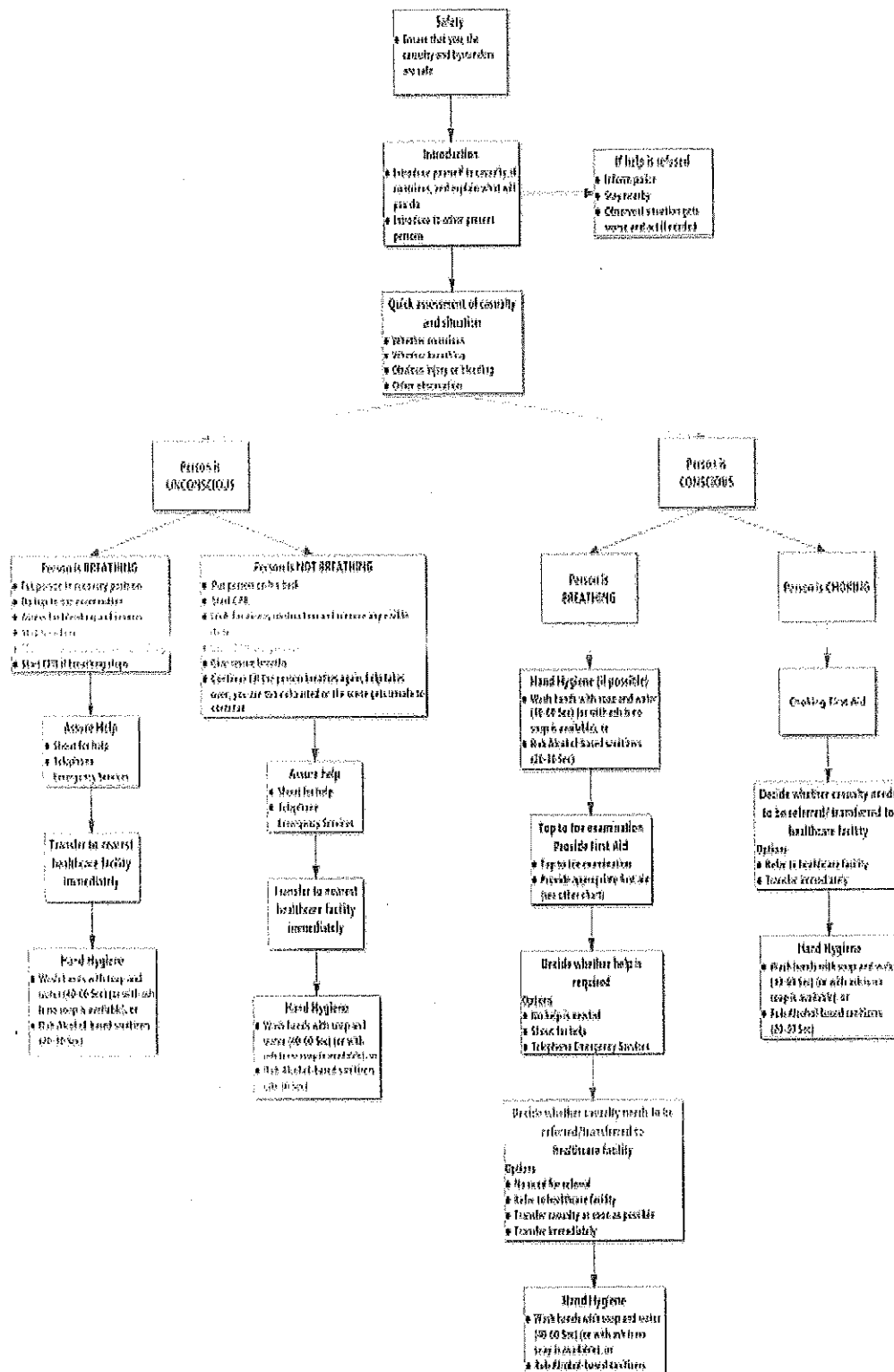
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 - d. None of above

SECTION-B**[3x2=6 Marks]**

- 1) Draw the first aid overview flow chart.

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2) Define dyspnoea. Explain the grades of dyspnoea.

Dyspnoea

Difficulty in breathing; shortness of breath

Grade of Dyspnea

Dyspnoea is divided into four different severity levels:

Grade 1: The shortness of breath arises with a greater physical exertion, e.g. when climbing the stairs.



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Grade II: The shortness of breath arises already with moderate physical strain, e.g. go straight.

Grade III: This is where the breathing is already at the smallest physical load, e.g. during trouser pulling and pulling out.

Grade IV: Dyspnoea at rest: dyspnoea also in rest, without physical activity

3) What do you mean transport technique? Write down the name of transport technique method.

After appropriate first aid has been given, the patient may need to be transported

SINGLE HELPER TRANSPORT.

- CRADLE TECHNIQUE
- HUMAN CRUTCH TECHNIQUE
- PICK-A-BACK TECHNIQUE
- FIREMAN'S LIFT AND CARRY TECHNIQUE

MULTIPLE HELPER TRANSPORT

HUMAN CRUTCH TECHNIQUE

HAND SEAT TECHNIQUES

THE TWO-HANDED SEAT TECHNIQUE

THE FORE AND AFT METHOD TECHNIQUE

THE KITCHEN-CHAIR CARRY TECHNIQUE

BLANKET LIFT TECHNIQUE

THREE PERSON CARRY AND STRETCHER LIFT

SECTION-C

[3x3= 9 Marks]

1) Define dressing. Explain the types of dressing

A dressing is a protective covering applied to a wound to:

TYPES OF DRESSINGS

ADHESIVE DRESSINGS (BAND AID) These sterile dressings consist of a pad of absorbent gauze of cellulose held in place by a layer of adhesive material. Sterile adhesive dressings are supplied in paper or plastic covers. The surrounding skin must be dry before application and all the edges of the dressing pressed firmly down.

NON ADHESIVE DRESSING

READY-MADE STERILE DRESSING The dressing consists of layers of gauze covered by a pad of cotton wool and with an attached roller bandage to hold it in position. The dressing is enclosed and sealed in protective covering (which is only broken while applying) and is supplied in various sizes.



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GAUZE DRESSING Gauze in layers is commonly used as a dressing for large wounds, as it is very absorbent, soft and pliable. It is liable to adhere to the wound; however, it may assist the clotting of blood. The dressing should be covered by one or more layers of cotton wool

IMPROVISED DRESSING These can be formed from any clean soft absorbent material such as a clean handkerchief, a piece of linen, a clean paper, or cellulose tissue. They should be covered and retained in position.

2) How to deal with an emergency?

Emergency situations vary greatly but there are four main steps that always apply:

1. Make the area safe.
2. Evaluate the injured person's condition.
3. Seek help.
4. Give first aid.

STEP 1: MAKE THE AREA SAFE

Your own safety should always come first. As a first aider, you should: try to find out what has just happened; check for any danger: is there a threat from traffic, fire, electricity cables, etc.; never approach the scene of an accident if you are putting yourself in danger; do your best to protect both the injured person(s) and other people on the scene; be aware that the property of the injured person is at risk. Theft can occur. So mind your safety, and seek police or emergency help if an accident scene is unsafe and you cannot offer help without putting yourself in danger.

In case of road accidents, as a first aider, you should:

always follow the traffic rules; ask other people to warn traffic about the event; if possible, place a warning sign at a good distance, at least 30 meters to either side of the accident, to warn traffic. Do not forget to remove the warning signs afterwards; seek help from the police or emergency services; not allow anybody to smoke near an accident site; switch off the engine of every car involved in the accident; and try to apply the handbrake of vehicles involved in the accident to prevent them from moving. You can also put something against the tyres to prevent rolling.

STEP 2: EVALUATE THE CONDITION OF THE SICK OR INJURED PERSON



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If it is safe, you can evaluate the sick or injured person's condition. Always check that he is conscious and breathing normally. Situations in which consciousness or breathing are impaired are often life threatening. Bleeding can also happen inside the body and can be life-threatening although the loss of blood is not seen. Techniques of resuscitation (CPR), the recovery position, etc. are explained in this manual.

STEP 3: SEEK HELP

Once you have evaluated the sick or injured person's condition you can decide if help is needed urgently. If help is needed, ask a bystander to call for help. Ask him to come back and confirm that help is underway. If you call for help, be prepared to have the following information available:

the location where the help is required (address, street, specific reference points, location; if in a building: floor, room); the telephone or mobile number you are calling from; the nature of the problem; what happened (car accident, fall, sudden illness, explosion, ...); how many injured; nature of the injuries (if you know); what type of help is needed: ambulance, police, fire brigade, or other services; and any other information that might help. You might be asked to give your name. Always stay calm and answer their questions calmly. The call takers are professionals and will give you further guidance. If an ambulance can be obtained in a short time, it is best to call for one and use it to transport the injured or sick person to the healthcare facility. An ambulance is the best way to transport ill or injured persons, but they are not always and everywhere quickly available. You can always ask the police for help. If no help is available, you will have to arrange transport yourself (in a van, a truck, a car, an auto-rickshaw, a motorbike, a scooter, a bike-rickshaw, a bike...). Always move the sick or injured person with great care.

STEP 4: PROVIDE FIRST AID

Give first aid in accordance with the instructions given in the following chapters in this manual. When providing first aid, try to protect an ill or injured person from cold and heat.

Do not give anything to eat or drink to a person who is:

severely injured, feeling nausea, becoming sleepy, or falling unconscious.

To support him through the ordeal, follow these simple tips: tell the sick or injured person your name, explain how you are going to help him and reassure him. This will help to relax him; listen to the person and show concern and kindness; make him as comfortable as possible; if he is worried, tell him that it is normal to be afraid; if it is safe to do so, encourage family and loved ones to stay with him; and explain to the sick or injured person what has happened and what is going to happen.



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WHEN CAN I STOP PROVIDING FIRST AID?

The question arises when your first aid 'duty' comes to an end? Within first aid, CPR is a lifesaving activity. But when can you stop giving CPR? There are four reasons allowing you to stop CPR: you see a sign of life, such as breathing; someone trained in first aid or a medical professional takes over; you are too exhausted to continue; or the scene becomes unsafe for you to continue.

3) Define burn. How to provide the first aid electrical burn victim?

ELECTRICAL BURNS AND ELECTROCUTION BY ELECTRICITY OR LIGHTNING

Electrical burns are caused when electricity passes through the body. The electricity source may be e.g. lightning or contact with household current, high voltage cables or transformers, or low voltage - high ampere electricity from a car, truck or tractor battery. Do not touch the casualty till the power switch has been turned off. The electricity enters the body at the point of contact, goes through the body and exits at the point where the body touches the ground or at earth point. Often burn wounds may be observed at these entry and exit points. But inside the body the electricity can cause damage on its track that remains hidden. Exposure to electricity can also cause cardiac arrest.

WHAT DO I SEE AND ENQUIRE?

Based on the situation you may be able to detect there has been an electrocution accident (e.g. you notice an electrical appliance connected to the electrical net next to the casualty, a high voltage wire might be next to the casualty, thunderstorm, ...).

The casualty may:

be unconscious,

have difficulty in breathing or have stopped breathing,

be in cardiac arrest (no beating heart) or have an irregular pulse, have burn wounds, or have muscle spasms

WHAT DO I DO?

SAFETY FIRST AND CALL FOR HELP

Never touch a casualty that still is connected to an electrical source! 2. Turn off the source of electricity. a. In case of high voltage currents, never try to move the wire or source of electricity away from the victim. High voltage current (+ 1000 Volt) can jump and kill up to 18 metres. Wait till the high voltage source has been turned off prior approaching the victim. b. In case of electrocution by home electricity (220V) and if you cannot switch off the electric source, you may try move the source away from both you and the injured person using a dry, non-conducting object made of cardboard, plastic or wood. c. In case of strike of lightning, make sure you and the victim stay safe. If



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you are at risk from ongoing lightning, wait until danger has passed. If possible stay inside a house or in a car. 3. Shout or call for help if you are alone but do not leave the person unattended. Ask a bystander to seek help or to arrange urgent transport to the nearest healthcare facility or hospital. Tell him to come back to you to confirm if help has been secured.

PROVIDE FIRST AID

Try not to move the casualty, except if he is in immediate danger.

6. Cool down the burn wounds. Use clean water. If there is no clean water available, use the available water. Only do this, if there is no danger of further electrocution: make sure the current has been switched off. a. Pour water on the burn for 10-15 minutes or until the burn stops hurting. b. Do not use very cold water for cooling the burns. Burn victims can easily become hypothermic. 6. Protect the burn victim by wrapping him in a clean sheet of cloth or blankets. 7. If possible, wash your hands before taking care of the patient. Use soap and water to wash your hands. If no soap is available, you can use ash to wash your hands. Alcohol-based sanitizers can also be used, if available. 8. Put on gloves if available. You can also use a clean plastic bag. Try not to touch the person's wounds. 9. Cover burn wounds with a clean cotton cloth. 10. Do not open blisters – leave them intact. 11. Remove any clothing or jewellery that is not stuck to the burned skin. Do not remove parts of clothing or jewellery that are attached to the burn wounds. 12. If possible, remove the person's belt, shoes or boots as the limb might swell. 13. Keep the casualty warm, but do not overheat him. 14. If possible, keep burned hands, legs or feet in an elevated position. 15. Do not leave the casualty alone, and keep observing him. 16. Transport the casualty as quickly as possible to the nearby healthcare facility or hospital.

WHAT DO I DO IF THE PERSON IS UNCONSCIOUS, BUT IS STILL BREATHING? a. Put the person in the recovery position. b. Continue to observe the victim and check his breathing

WHAT DO I DO WHEN THE PERSON STOPPED BREATHING? Perform CPR. Do not interrupt the resuscitation until: the person starts to wake up, moves, opens his eyes and breathes normally; help (trained in CPR) arrives and takes over; you become too exhausted to continue; or the scene becomes unsafe for you to continue.



**BHARTIYA SKILL DEVELOPMENT UNIVERSITY****School of Health Care and Paramedics Skills****Session: 2019-20 Summer****B. Voc. Program, 1st Semester****2nd In-Sem. Examination****Course Code: SHP1107****Time: 1 Hour****Course Name: Vital Signs & Assisting in Drug Administration****Max. Marks: 20****Instructions:**

1. **SECTION-A:** 05 objective type questions, each question carries 01 mark
2. **SECTION-B:** 03 short answer type questions, each question carries 02 marks
3. **SECTION-C:** 03 essay type questions, each question carries 03 marks.

SECTION-A**[5x1=Marks]**

1. **What is the normal pulse rate of infant?**
 - a. 140 beats/minute
 - b. 110 beats/minute
 - c. 130 beats/minute
 - d. 100 beats/minute
2. **Which part of temperature regulate?**
 - a. Hypothalamus
 - b. Skin
 - c. Pons
 - d. Medulla oblongata
3. **Core body temperature issurface body temperature.**
 - a. Less than
 - b. Higher than
 - c. Equal to
 - d. None of above
4. **Bradypnea means...**
 - a. Increase the pulse rate
 - b. Increase the respiration rate
 - c. Decrease the respiration rate
 - d. Normal respiration rate
5. **Subcutaneous injection injected in...**
 - a. In the muscle
 - b. Inhalation
 - c. In a vein
 - d. Underneath the skin

SECTION-B**[3x2=6 Marks]**

- 1) Define pulse. Write down the six influencing factor of increase cardiac output.
- 2) Write down the two difference between the tachycardia and bradycardia.
- 3) Explain the four abnormal breathing sound.

SECTION-C**[3x3= 9 Marks]**

- 1) Explain the 6R rules of drugs administration.
- 2) Define hypertension Write down the four causes, symptom and therapy of hypertension.
- 3) Describe the korotkoff sounds.

K. Koen

Set ①

**BHARTIYA SKILL DEVELOPMENT UNIVERSITY****School of Health Care and Paramedics Skills****Session: 2019-20 Summer****B. Voc. Program, 1st Semester****2nd In-Sem. Examination****Course Code: SHP1107****Time: 1 Hour****Course Name: Vital Signs & Assisting in Drug Administration****Max. Marks: 20****Instructions:**

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SECTION-A**[5x1=Marks]**

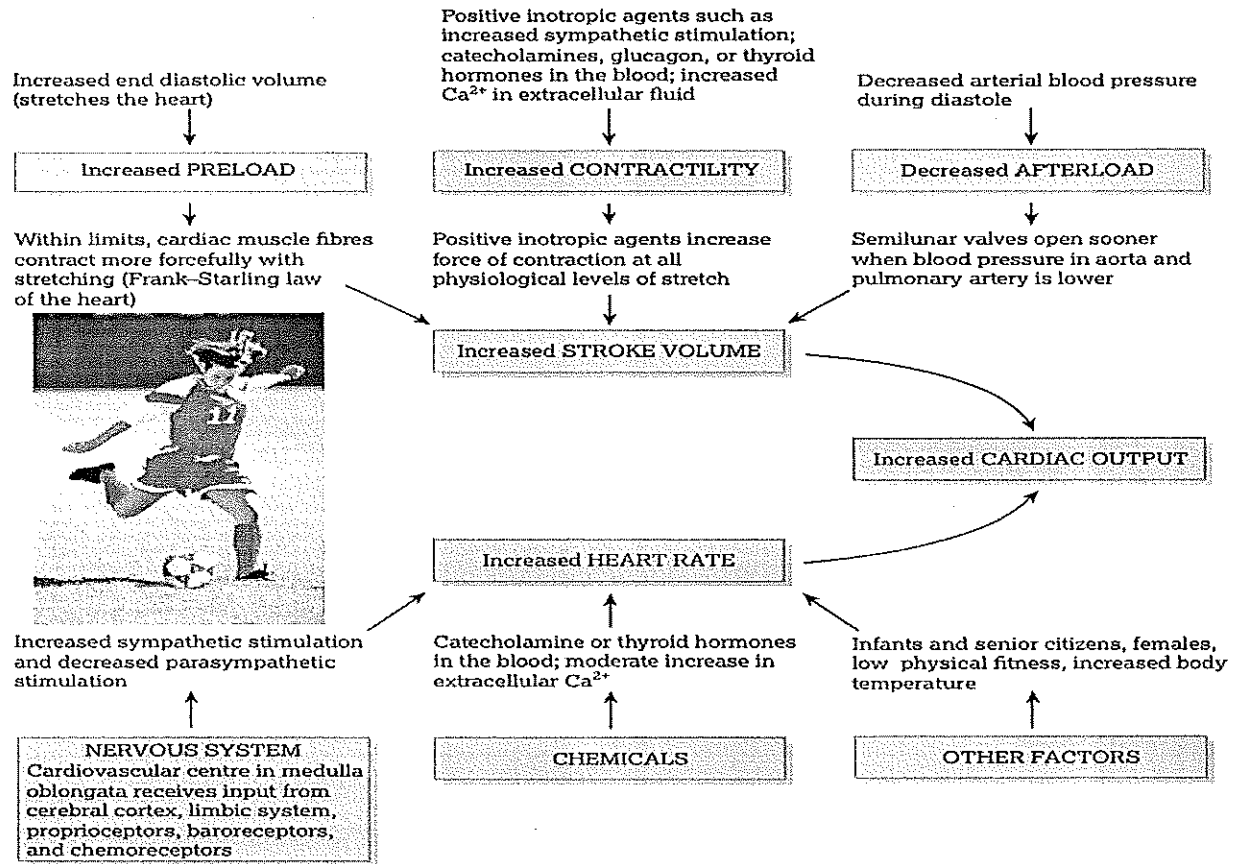
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SECTION-B**[3x2=6 Marks]**

- 1) **Define pulse. Write down the six influencing factor of increase cardiac output.**

Pulse rate is the number of times the heart beats per minute (bpm). During the cardiac cycle, the pulse is the wave of blood that courses through the body when the left ventricle contracts. After contraction, the heart rests as the cardiac muscle relaxes and the ventricle is filling with blood again.

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2) Write down the two difference between the tachycardia and bradycardia.

Definition	Physiologically	Pathologically
Tachycardia Significantly exceeded the old pulse rate	Physical exertion or excitement	Fever, high fluid loss, pain
Bradycardia Understanding the age-related pulse rate	During relaxation and sleep, for athletes	Drug overdoses

3) Explain the four abnormal breathing sound.

Breath Sounds

Normal respirations do not usually have any noticeable sounds. However, certain diseases and illnesses can cause irregular respiration sounds. Terms for describing these abnormal breath sounds include the following:

Stridor	A shrill, harsh sound, heard more clearly during inspiration but that can occur during expiration. This sound may occur when there is airway blockage, such as in children with croup and patients with laryngeal obstruction.
Stertor (stertorous breathing)	Noisy sounds during inspiration, sounds like those heard in snoring.
Crackles (also called rales)	Crackling sounds resembling crushing tissue paper, caused by fluid accumulation in the airways. Crackles can be further defined as coarse or fine. Crackles can be heard with pulmonary edema, asthma, early congestive heart failure, and some

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	types of pneumonia.
Rhonchi	Rattling, whistling, low-pitched sounds made in the throat. Rhonchi can be heard in patients with pneumonia, chronic bronchitis, cystic fibrosis, or COPD (chronic obstructive pulmonary disease).
Wheezes	Sounds like rhonchi but more high-pitched, made when airways become obstructed or severely narrowed, as in asthma or COPD.
Cheyne-Stokes breathing	Irregular breathing that may be slow and shallow at first, then faster and deeper, and that may stop for a few seconds before beginning the pattern again. This type of breathing may be seen in certain patients with traumatic brain injury, strokes, and brain tumors.

SECTION-C

[3x3= 9 Marks]

1) Explain the 6R rules of drugs administration.

The six rights of safe medication administration

1. Right patient	<ul style="list-style-type: none">• Ask the patient their first and last name• Does the order match the patient?
2. Right medication	<ul style="list-style-type: none">• Does the medication label match the order?• Be vigilant with look-alike and sound-alike medications
3. Right dose	<ul style="list-style-type: none">• Does the strength and dosage match the order?• Is it half, whole or multiple tablets?
4. Right time	<ul style="list-style-type: none">• Does the administration time match the order?
5. Right route	<ul style="list-style-type: none">• Does the route match the order?• Can this be crushed or mixed in other substances?• Have any transdermal patches been removed?
6. Right documentation	<ul style="list-style-type: none">• Document immediately after the medication is administered

2) Define hypertension Write down the four causes, symptom and therapy of hypertension.

Hypertension, or high blood pressure, is a very common and serious condition that can lead to or complicate many health problems. The risk of cardiovascular morbidity and mortality is directly correlated with blood pressure. Risks of stroke, angina, heart failure, kidney failure or early death from a cardiovascular cause are directly correlated with BP. Hypertension is often called "the silent killer" because it generally has no symptoms until serious complications develop.

Therapy

Non-drug treatment is also important. The lifestyle should be adjusted:

- weight reduction
- consumption of alcohol

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- regular exercise
- reduction of cooking salt consumption.

3) Describe the korotkoff sounds.

Korotkoff sounds, named after the Russian neurologist, Nicolai Korotkoff, are the rhythmic, tapping sounds heard while taking blood pressure as the arterial wall distends under the compression of the cuff. These sounds appear and disappear as the blood pressure cuff is inflated and deflated. With the blood pressure cuff placed and inflated on the brachial artery, no sound can be heard through the stethoscope because the brachial artery is fully compressed and no blood is flowing through it. As the cuff deflates and air is slowly removed from the cuff, the Korotkoff sounds become audible.

Phase I	This is the first faint sound heard as the cuff is deflated. The number that appears on the blood pressure gauge at that moment is recorded as the systolic pressure reading. The cuff must first be inflated to a level high enough to hear this first sound during relaxation. If the cuff is not inflated high enough and a pulse is heard immediately after deflation, stop the procedure, remove the cuff, wait a couple of minutes, and then start the procedure again, inflating the cuff at least 20 mmHg above the first attempt.
Phase II	The second phase occurs as the cuff continues to be deflated and more blood flows through the artery. This sound has a swishing quality. The cuff has to be slowly deflated to hear this soft sound. An auscultatory gap is said to have occurred if there is a total loss of sound that then reoccurs later. An auscultatory gap can occur in certain cases of heart disease and hypertension and should be reported to the physician.
Phase III	During this phase, the sound will become less muffled and develop a crisp tapping sound as the blood flow moves easily through the artery. If the BP cuff was not inflated enough to hear the Phase I sound, then the Phase III sound may be heard and incorrectly stated as the systolic reading.
Phase IV	This phase is characterized by the sound beginning to fade and become muffled. The American Heart Association, which believes Phase IV is the best indicator of the diastolic pressure, recommends the reading at this phase be recorded as the diastolic pressure for a child.
Phase V	Sound will disappear during this phase. Some physicians may require both Phase IV and Phase V recorded for the diastolic pressure reading.