



# BIOLOGY

## AAKASH INSTITUTE ENGLISH

### MOCK TEST 09 ZOOLOGY

#### Example

1. Which of the following statements is incorrect regarding circulatory system of fishes?

- A. Fishes have two chambered heart with an atrium and a ventricle
- B. Only deoxygenated blood is pumped through their heart
- C. Mixing of oxygenated and deoxygenated blood occurs in ventricle
- D. Oxygenation of blood occurs at gills

**Answer: C**



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2. Which of the following is not a part of circulatory system of human?

A. Heart

B. Blood vessels

C. Sinuses

D. Blood

**Answer: C**



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3. Which of the following is a correct match regarding valves and their respective location?

1) Tricuspid valve (Valves) - Aorta (Location)

2) Mitral valve (Valves) - Between left atrium and left ventricle (Location)

3) Bicuspid valve (Valve) - Between right atrium and right ventricle (Location)

4) Semilunar valve (Valves) - Between left and right atrium (Location)

A. Tricuspid valve (Valves) - Aorta (Location)

B. Mitral valve (Valves) - Between left atrium and left ventricle (Location)

C. Bicuspid valve (Valve) - Between right atrium and right ventricle (Location)

D. Semilunar valve (Valves) - Between left and right atrium (Location)

**Answer: B**



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4. Which of the following structures prevents atrioventricular valves from reverting into atria during ventricular contraction?

A. Chordae tendine

B. Purkinje fibers

C. Bundle of His

D. Columnae carnae

**Answer: A**



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5. Find the odd one among the following blood vessels w.r.t. the blood (deoxygenated or oxygenated ) which is carried by them?

A. Pulmonary artery

B. Pulmonary vein

C. Coronary veins

D. Vena cava

**Answer: B**



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**6.** Consider the following statements? (a)

Before birth, foramen ovale allows the blood to pass from right atrium to left atrium , thus

bypassing the pulmonary circulation , (b) Heart is protected by a double walled pericardium , (c) The muscle fibres present in heart are different from smooth muscles in being mesodermal in origin , (d) Nodal tissues like AVN, SAN are specialised neural tissues which are distributed in heart. How many among the statements mentioned above are correct?

A. Two

B. Three

C. One



D. Four

**Answer: A**



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7. Which of the following structures in the normal human heart generates action potential to initiate a cardiac cycle?

A. SA node

B. AV node

C. Purkinje fibres

D. Bundle of His

**Answer: A**



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8. During which of the following of the following events of cardiac cycle, AV valves remain closed?

A. Atrial systole

B. Ventricular systole

C. Ventricular diastole

D. Joint diastole

**Answer: B**



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9. Match the columns : (a) Atrial systole (Column I) (i) 0.7 seconds (Column II) , (b) Joint diastole (Column I) (ii) 0.3 seconds (Columnn II) (c) Ventricular systole (Column I) (iii) 0.1

second (Column II) , (d) Atrial diastole (Column I) (iv) 0.4 seconds (Column II)

A. a(iii) , b(iv), c(ii), d(i)

B. a(iv), b(iii), c(ii), d(i)

C. a(iii), b(iv), c(i), d(ii)

D. a(i), b(ii), c (iii), d(iv)

**Answer: A**



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**10.** Select the correct statement :

A. Blood flow to the ventricles increases by

70% during atrial systole

B. Decline in ventricular pressure leads to

opening of semilunar valves

C. Amount of blood pumped by ventricles

during a cardiac cycle is known as

cardiac output

D. Our body has ability to alter stroke volume as well as cardiac output

**Answer: D**



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11. Rise in ventricular pressure during ventricular systole leads to closure of atrioventricular valves which generates

- 1) Lub sound
- 2) Dub sound

3) Third heart sound

4) Heart murmurs

A. Lub sound

B. Dub sound

C. Third heart sound

D. Heart murmurs

**Answer: A**



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12. Which of the following is correct representation of flow of action potential through conduction system of heart?

A. AV node to SA node to Bundle of His to Purkinje fibres

B. SA node to AV node to Purkinje fibres to Bundle of His

C. AV node to Bundle of His to SA node to Purkinje fibres



D. SA node to AV node to Bundle of His to  
Purkinje fibres

**Answer: D**



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**13.** Which of the following segments in ECG represents the end of ventricular systole?

A. Beginning of T-wave

B. End of T-wave

C. S-T segment

D. P-Q segment

**Answer: B**



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**14.** Which of the following changes in ECG indicates that a person is having a heart attack?

A. Enlargement of P-wave

B. Depressed S-T segment

C. Elevated S-T segment

D. Flat T -wave

**Answer: C**



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**15.** Which of the following is not a component of pulmonary circulation?

A. Pulmonary vein

B. Pulmonary artery

C. Aorta

D. Heart

**Answer: C**



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**16.** The hepatic portal vein carries blood from A to B before it is delivered to systemic circulation. Choose the option which gives the correct description for A and B ?

A. Liver (A) Intestine (B)

B. Intestine (A) Liver (B)

C. Liver (A) Heart (B)

D. Intestine (A) Heart (B)

**Answer: B**



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**17.** Which of the following structures ultimately drains, deoxygenated blood from

heart musculature through coronary vein into right atrium?

- A. Superior vena cava
- B. Inferior vena cava
- C. Coronary sinus
- D. Coronary arteries

**Answer: C**



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**18.** Select the correct match regarding the effect of autonomic nervous system on stroke volume and cardiac output.

A. Parasympathetic nervous system

(Autonomic nervous system) Increase

(Stroke volume) Decrease (Cardiac output)

B. Sympathetic nervous system (Autonomic

nervous system) Increase (Stroke volume)

Decrease (Cardiac output)

C. Parasympathetic nervous system

(Autonomic neural system) Decrease

(Stroke volume) Increase (Cardiac output)

D. Sympathetic nervous system (Autonomic

neural system) Increase (Stroke volume)

Increase (Cardiac output)

**Answer: D**



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**19.** Which of the following hormones will lead to increase in number of QRS complexes in an ECG in a minute?

- A. Adrenaline
- B. Acetylcholine
- C. Nor adrenaline
- D. Both (1) & (3)

**Answer: D**



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**20.** Select the incorrect statement.

A. Renal portal system is absent in mammals

B. Medulla oblongata can modulate cardiac function through autonomic nervous system

C. Hepatic vein carries blood from intestine to liver

D. In human, heart beat is initiated by specialised nodal tissue, hence the heart is called myogenic

**Answer: C**



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21. Sympathetic nerve endings release non-adrenaline which leads to

A. Increase in rate of heart beat

B. Decrease in speed of conduction of action potential through heart musculature

C. Decrease in cardiac output and stroke volume

D. Increase in stroke volume but decrease in cardiac output

**Answer: A**



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