



General Instructions

- (i) The examination will be conducted in Computer-Based Test (CBT) mode.
- (ii) Each question carries +5 marks for correct answer and -1 mark for wrong answer.
- (iii) The total number of questions are 50.
- (iv) Duration of the exam is 1 hour (60 minutes).

1. Match List - I with List - II. Choose the correct answer from the options given below:

List I

List II

- P. Ribosome (i) Replication
Q. Histone (ii) Transcription
R. DNA polymerase (iii) Translation
S. RNA polymerase (iv) Nucleosome

- (A) P (i), Q (ii), R (iii), S (iv)
(B) P (ii), Q (i), R (iii), S (iv)
(C) P (i), Q (ii), R (iv), S (iii)
(D) P (iii), Q (iv), R (i), S (ii)

2. Identify the statements true for RNA.

- (i) RNA acts as a genetic material for some viruses.
- (ii) RNA also functions as an adapter molecule.
- (iii) RNA has hexose sugar as its backbone.
- (iv) RNA also acts as catalyst in some cases.

- (A) (i), (ii) and (iii) only
 - (B) (i), (ii) and (iv) only
 - (C) (ii), (iii) and (iv) only
 - (D) (i), (iii) and (iv) only
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3. Which of the following is not a Mendelian Disorder?

- (A) Haemophilia
 - (B) Sickle-cell anaemia
 - (C) Down's Syndrome
 - (D) Phenylketonuria
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4. Arrange Griffith's experiment in correct sequence.

- (i) S strain injected → mice died
 - (ii) Heat-killed S strain → mice lived
 - (iii) R strain injected → mice lived
 - (iv) Heat-killed S + R strain → mice died
- (A) (i), (ii), (iii), (iv)
 - (B) (ii), (i), (iii), (iv)
 - (C) (ii), (iii), (iv), (i)
 - (D) (i), (iii), (ii), (iv)
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5. Match List - I with List - II (Contraception).

List I List II

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|-------------------------------|--------------------------------------|
| P. Lippes loop | (i) Barrier |
| Q. Vaults | (ii) Hormone releasing device |
| R. Periodic abstinence | (iii) Non-medicated IUDs |
| S. Progestasert | (iv) Natural method |

- (A) P-(i), Q-(iii), R-(iv), S-(ii)
- (B) P-(iii), Q-(ii), R-(iv), S-(i)

- (C) P-(iii), Q-(i), R-(iv), S-(ii)
(D) P-(iii), Q-(i), R-(ii), S-(iv)
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6. Arrange the following stages of development of a dicot embryo in the order of their occurrence:

- (i) Formation of heart shaped embryo
(ii) Formation of typical dicot embryo
(iii) Formation of zygote
(iv) Formation of globular embryo

- (A) (i), (ii), (iii), (iv)
(B) (iii), (iv), (i), (ii)
(C) (iii), (i), (ii), (iv)
(D) (iv), (i), (ii), (iii)
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7. Ribozyme is:

- (A) 23S rRNA
(B) 28S rRNA
(C) 18S rRNA
(D) 5.8S rRNA
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8. Match List - I with List - II.

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|------------------|-------------------------|
| P. Polyembryony | (i) Apple |
| Q. Parthenocarpy | (ii) Female gametophyte |
| R. False Fruit | (iii) Orange |
| S. Embryo Sac | (iv) Banana |
- (A) P-(iii), Q-(i), R-(ii), S-(iv)
(B) P-(iii), Q-(iv), R-(i), S-(ii)
(C) P-(i), Q-(iv), R-(iii), S-(ii)
(D) P-(iii), Q-(iv), R-(ii), S-(i)
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9. Select correct statements regarding menstrual cycle in human female:

- (i) First menstruation begins at puberty and is called menopause.
- (ii) Ovulation occurs around day 14 when progesterone is maximum.
- (iii) In absence of fertilisation, corpus luteum degenerates causing menstruation.
- (iv) Menstrual cycle ceases around 50 years of age.

- (A) (i) and (ii) only
 - (B) (ii) and (iv) only
 - (C) (i) and (iii) only
 - (D) (iii) and (iv) only
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10. In DNA N-glycosidic linkage is present between:

- (A) Pentose sugar and phosphate group
 - (B) Nitrogenous base and pentose sugar
 - (C) Two nitrogenous bases
 - (D) Two pentose sugars
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