

PREVIEW QUESTION BANK

Module Name : SCPH28 Zoology - ENG
Exam Date : 27-Oct-2023 Batch : 14:30-17:30

Sr. No.	Client Question ID	Question Body and Alternatives	Marks	Negativ Marks
Objective Question				
1	994001	What are the options available with advance search in google scholar? A. Search based on exact word B. Search based on year of publication C. Search excluding specific word D. Search based on author's name E. Search based on publisher Choose the most appropriate answer from the options given below: 1. A, B, D and E only 2. A, B, C and D only 3. B,C,D and E only 4. A, B, C, D and E A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.00
Objective Question				
2	994002	Software 'Zotero' is a 1. Search engine 2. Reference manager 3. Citation manager 4. h-index indicator A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.00
Objective Question				
3	994003		4.0	0.00

		What are the most widely used classifications of measurement scales? A. Nominal scale B. Ordinal scale C. Technical scale D. Interval scale E. Ratio scale Choose the most appropriate answer from the options given below: 1. A, B, D and E only 2. A, B, C and D only 3. B, C, D and E only 4. A, C, D and E only A1 : 1 A2 : 2 A3 : 3 A4 : 4		
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Objective Question

4	994004	Which of the following tools are used as reference manager A. Endnote B. Mendeley C. iThenticate Choose the most appropriate answer from the options given below: 1. A and C only 2. B and C 3. A and B only 4. A, B and C A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.00
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Objective Question

5	994005	A researcher should select a Journal for publication based on which of the following criteria? A. Aim and scope of the journal B. Whether the journal is open access C. Terms and conditions of the journal D. Duration of the journal for the reviewer's comment Choose the most appropriate answer from the options given below: 1. A, B and C only 2. B, C and D only 3. A, B, C and D 4. A and B only	4.0	0.00
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		A1 : 1		
		A2 : 2		
		A3 : 3		
		A4 : 4		

Objective Question

6	994006	Advance search in Google scholar is used for 1. Reference management 2. Coding 3. Citation of publication 4. Precise search of publication A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.00
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Objective Question

7	994007	Which of the following parameters are essential for publication of a manuscript according to the editor? A. Manuscript is written in proper format B. Manuscript falls under aims and scope of the journal C. Referencing should be done only using a reference manager tool D. There should not be any plagiarism in the manuscript E. Authors contribution is clearly mentioned Choose the most appropriate answer from the options given below: 1. A, B, C and D only 2. A, B, D and E only 3. B, C, D and E only 4. A, B, C, D and E A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.00
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Objective Question

8	994008		4.0	0.00
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What are the possible sources of error while performing any measurement?

- A. Instrument
- B. Respondent
- C. Measurer
- D. Hypothesis
- E. Situation

Choose the most appropriate answer from the options given below:

- 1. A, D and C only
- 2. A, B, C and E only
- 3. A, B, C and D only
- 4. A, B, C, D and E

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

9	994009	Which of the following are the tests of proper measurement? A. Test of Validity B. Test of Reliability C. Test of Suitability D. Test of Practicality Choose the most appropriate answer from the options given below: 1. A, B and C only 2. A, B and D only 3. B, C, and D only 4. A, B, C and D A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.00
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Objective Question

10	994010		4.0	0.00
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Arrange the following in a correct sequence for four-stage process of developing measurement tools

- A. Specification of concept dimensions
- B. Selection of indicators
- C. Concept development
- D. Formation of index

Choose the correct answer from the options given below:

- 1. B, A, D, C
- 2. A, B, C, D
- 3. D, C, A, B
- 4. C, A, B, D

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

11	994011	Which of the following approaches are used for ranking scales? A. Method of ratio level B. Method of paired comparisons C. Method of rank order Choose the most appropriate answer from the options given below: 1. A and B only 2. C only 3. A, B and C 4. B and C only A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.00
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Objective Question

12	994012		4.0	0.00
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		Which of the following approaches are used for scale construction? A. Consensus scale approach B. Item analysis approach C. Factor analysis approach D. Arbitrary approach E. Cumulative scale approach Choose the most appropriate answer from the options given below: 1. A, C and E only 2. A, B, C and D only 3. A, B, C, D and E 4. A, C, D and E only A1 : 1 A2 : 2 A3 : 3 A4 : 4		
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Objective Question

13	994013	Which are the factors that a researcher should keep in mind while selecting appropriate method for data collection? A. Availability of funds B. Time factor C. Nature and scope of the enquiry D. Ease of using the method E. Precision Choose the most appropriate answer from the options given below: 1. A, B, C and D only 2. A, B, D and E only 3. A, B, C and E only 4. A, B, C, D and E A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.00
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Objective Question

14	994014	A research type that accurately portrays characteristics of particular individual, situation or a group is called as: 1. Formulative research 2. Descriptive research 3. Exploratory research 4. Diagnostic research A1 : 1	4.0	0.00
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A2 : 2

A3 : 3

A4 : 4

Objective Question

15	994015	A researcher interested to investigate the reasons for human behaviour, should conduct A. Quantitative research B. Qualitative research C. Motivation research D. Analytical research Choose the most appropriate answer from the options given below: 1. B and C only 2. A and D only 3. B only 4. B, C and D only A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.00
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Objective Question

16	994016	Study of causal relationship between variables comes under which category of research study? 1. Descriptive research study 2. Exploratory research study 3. Hypothesis-testing research study 4. Fundamental research study A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.00
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Objective Question

17	994017	Study of experimental designs has originated from 1. Social science research 2. Agricultural research 3. Statistical research 4. Chemical research A1 : 1	4.0	0.00
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		A2 : 2		
		A3 : 3		
		A4 : 4		

Objective Question

18	994018	Prof. R.A. Fisher is associated with : 1. Observational design and operation of research 2. Experimental design in social science research 3. Experimental design in agricultural research 4. Statistical design and analysis of experiment A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.00
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Objective Question

19	994019	Which of the following are the principles of experimental design? A. Replication B. Randomization C. Statistical analysis D. Local control Choose the most appropriate answer from the options given below: 1. A, B and D only 2. A, B and C only 3. A, B, C and D 4. B, C and D only A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.00
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Objective Question

20	994020		4.0	0.00
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Which of the following are the alternative hypothesis to test whether the population mean (μ) is equal to the hypothesis mean (μ_{H0})?

- A. $H_a : \mu \neq \mu_{H0}$
- B. $H_a : \mu < \mu_{H0}$
- C. $H_0 : \mu = \mu_{H0}$
- D. $H_a : \mu > \mu_{H0}$

Choose the most appropriate answer from the options given below:

- 1. A, D and C only
- 2. B and D only
- 3. C only
- 4. A, B and D only

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

21	994021	If the significance level is 5 percent in two-tailed test, the probability of the acceptance area will be: 1. 0.95 2. 0.095 3. 95 4. 9.5 A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.00
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Objective Question

22	994022	If a population does not follow normal distribution, which kind of test can be performed? A. <i>U</i> test B. Chi square test C. Wilcoxon-Mann-Whitney test D. <i>F</i> test E. Kruskal-Wallis test Choose the most appropriate answer from the options given below: 1. A, B and C only 2. C, D and E only 3. A, C and E only 4. B, C and E only A1 : 1	4.0	0.00
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		A2 : 2		
		A3 : 3		
		A4 : 4		

Objective Question

23	994023	Which of the following are parametric tests? A. z-test B. U-test C. t-test D. χ^2 -test E. F-test Choose the most appropriate answer from the options given below: 1. A, B, C and D only 2. A, C, D and E only 3. B, C, D and E only 4. A, B, C, D and E A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.00
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Objective Question

24	994024	Find out the h-index of a researcher based on the citations of the publication given below 1st publication - 10 citations 2nd publication - 8 citations 3rd publication - 7 citations 4th publication - 5 citations 5th publication - 4 citations 6th publication - 3 citations 1. 3 2. 4 3. 5 4. 7 A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.00
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Objective Question

25	994025		4.0	0.00
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		How the Impact Factor of a journal is calculated? 1. Total number of citations of a journal/ Total number of publications of that journal 2. Number of citations of a journal in last one year/ Number of publications of that journal in last one year 3. Number of citations of a journal in last two years/ Number of publications of that journal in last two years 4. Number of citations of a journal in last three years/ Number of publications of that journal in last three years A1 : 1 A2 : 2 A3 : 3 A4 : 4		
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Objective Question

26	994026	Find out the i-10 index of a researcher from the following data: 1st publication - 12 citations 2nd publication - 13 citations 3rd publication - 15 citations 4th publication - 8 citations 5th publication - 7 citations 6th publication - 10 citations 7th publication - 11 citations 1. 4 2. 5 3. 6 4. 7 A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.00
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Objective Question

27	994027		4.0	0.00
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		For bivariate populations, correlation can be studied through - Karl Pearson's coefficient of correlation - Coefficient of partial correlation - Coefficient of multiple correlation - Charles Spearman's coefficient of correlation - Cross tabulation Choose the most appropriate answer from the options given below: - A, D and E only - A, B and C only - A, B and D only - B, D and E only A1 : 1 A2 : 2 A3 : 3 A4 : 4		
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Objective Question

28	994028	Simple regression analysis defines the relationship between: - Dependent and extraneous variable - Independent and extraneous variable - Dependent and independent variable - Two different dependent variables A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.00
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Objective Question

29	994029	Which one of the following tools is used to detect plagiarism? - Turnitin - MS Word - Google scholar - Zotero A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.00
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Objective Question

30

994030

Match List I with List II

4.0

0.00

LIST I		LIST II	
A.	Descriptive research	I.	To gain familiarity with a phenomenon or to develop new insights about it
B.	Exploratory research	II.	To test a hypothesis defining (causal) relationship between variables
C.	Diagnostic research	III.	To describe the characteristics of a particular situation, group or individual
D.	Hypothesis-testing research	IV.	To determine the frequency with which something occurs or with which it is associated with something else

Choose the correct answer from the options given below:

1. A-II, B- I, C - IV, D - III

2. A-II, B- III, C - IV, D - I

3. A-III, B- II, C - IV, D - I

4. A-III, B- I, C - IV, D - II

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

31	994031	If the aim of a research project is to 'develop a flood tolerant variety of rice', then the nature of the research project can be defined as: 1. Applied research 2. Fundamental research 3. Quantitative research 4. Descriptive research A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.00
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Objective Question

32	994032		4.0	0.00
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Which of the following statements best describe the difference between 'Research Method' and Research Methodology'?

- A. 'Research Method' pertains to the technique whereas 'Research Methodology' is the over-all experimental plan.
- B. 'Research Methodology' pertains to the technique whereas 'Research Method' is the over-all experimental plan.
- C. 'Research Methods' are used for quantitative research whereas 'Research Methodology' is used for qualitative research.
- D. 'Research Methods' are used for qualitative research whereas 'Research Methodology' is used for quantitative research.

Choose the most appropriate answer from the options given below:

- 1. A and C only
- 2. B and C only
- 3. A only
- 4. B and C only

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

33	994033	Before conducting an actual experiment (any method) which of the following should be done? A. Formulating of the research problem B. Survey of the literature C. Develop a working hypothesis D. Analyze the data. Choose the most appropriate answer from the options given below: 1. A, B, C and D 2. A, B and C only 3. C and D only 4. A nd D only A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.00
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Objective Question

34	994034		4.0	0.00
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		Which of the following can be regarded as an example of a 'Qualitative' research? A. Identifying the causal pathogen for rice 'stem borer' disease in India. B. Estimating the area of land under basmati rice cultivation in the year 2023. C. Identifying the Covid 19 virus strain/s infecting people in Delhi. D. Identifying the most prevalent Covid 19 virus strain infecting people in Delhi. Choose the most appropriate answer from the options given below: 1. A and B only 2. A and C only 3. C and D only 4. B and D only A1 : 1 A2 : 2 A3 : 3 A4 : 4		
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Objective Question

35	994035	'Experimental error' can be defined as the: 1. impact of 'independent variable' on the value of dependent variable 2. impact of 'dependent variable' on the value of independent variable 3. impact of 'extraneous variable' on the value of dependent variable 4. value of 'extraneous variable' A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.00
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Objective Question

36	994036	Which of the following traits can be regarded as an example of 'continuous variable'? 1. Basic Metabolic Rate (BMR) 2. RBC count 3. Number of patients infected with Nepha virus 4. WBC count A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.00
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Objective Question

37	994037	In a research project designed to estimate the impact of rainfall on wheat production, which of the following can be considered as an 'Extraneous' variable? 1. Amount of rainfall 2. Weight of wheat grains 3. Accuracy of the weighing balance 4. Level of soil moisture in the wheat field A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.00
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Objective Question

38	994038	In order to understand the prevalence of Covid 19 virus infection in different states of India, 100 samples were collected from each of the different states of India. This type of sampling can be defined as: 1. Stratified sampling 2. Simple random sampling 3. Systematic sampling 4. Convenience sampling A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.00
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Objective Question

39	994039	'Sampling Error' can be defined as: 1. a wrong data recording 2. a wrong interpretation of the data 3. the difference between the value of 'Population mean' and the 'Sample mean' 4. an instrumental error A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.00
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Objective Question

40	994040		4.0	0.00
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		Which one of the following data collection exercises would require an 'Informed consent' ? 1. Collection of blood samples from HIV patients 2. Estimation of rice crop yield in different villages of Punjab 3. Estimating the number of passengers travelling/week in Delhi metro 4. Estimating the number of non-Delhi passengers travelling/week in Delhi metro A1 : 1 A2 : 2 A3 : 3 A4 : 4		
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Objective Question

41	994041	Which of the following CANNOT be patented? 1. A new technology for sequencing human genome 2. A naturally occurring basmati rice variety 3. A precision breeding technology 4. Plant imaging technology A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.00
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Objective Question

42	994042	Contents compiled as a research article in a scientific journal is protected by: 1. Patent rights 2. Copyright 3. 'Trademark' rights 4. 'Design' rights A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.00
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Objective Question

43	994043		4.0	0.00
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		Indian patent laws operate under: 1. 'First to modify' principle 2. 'First to discover' principle 3. 'First to invent' principle 4. 'First to file' principle A1 : 1 A2 : 2 A3 : 3 A4 : 4		
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Objective Question

44	994044	At global level, which one of the following research methodologies is being applied to both human and agricultural sciences? 1. Machine learning 2. Cancer research 3. Breeding 4. Hybrid development A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.00
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Objective Question

45	994045	The traditional knowledge of utilization of natural plant based products for human health is protected under: 1. Protection of plant variety and farmer's right 2. Indian copyright law 3. National Biodiversity Act 4. Indian trademark law A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.00
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Objective Question

46	994046		4.0	0.00
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		Use of which one of the following research methodologies is rapidly increasing in the last few years in India? 1. Genome sequencing of various crop plant varieties 2. Estimation of crop yields 3. Impact of floods on crop yield 4. Impact of drought on crop yield A1 : 1 A2 : 2 A3 : 3 A4 : 4		
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Objective Question

47	994047	Which one of the following is a primary source of genome sequence datasets? 1. UniProtKB 2. GenBank 3. SwissProt 4. Protein Data Bank A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.00
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Objective Question

48	994048	A good research design must include details: A. about how the data would be collected B. availability of funds C. availability of relevant skills D. objective Choose the most appropriate answer from the options given below: 1. A and D only 2. A, C and D only 3. B only 4. A, B, C and D A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.00
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Objective Question

49	994049	Ideally a 'research problem' should : - be financially viable - address a novel phenomenon - should be socially relevant - have been extensively worked upon by predecessors. Choose the most appropriate answer from the options given below: - A and B only - A, B and C only - A and D only - B, C and D only A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.00
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Objective Question

50	994050	Which one of the following research methods (technique) is being widely used to detect infection of Covid19 virus? - RT-Polymerase Chain Reaction - Polymerase Chain Reaction - Flow cytometry - X-ray A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.00
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Objective Question

51	994051	Which technique is known to use radioisotope during its processing - - ELISA - RIA - TIA - Western blotting A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.00
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Objective Question				
52	994052	Sanger's method of DNA sequencing is known as _____ method, while Maxam and Gilbert's method employs _____ method to determine the DNA sequence during the experiments. 1. Chemical; Enzymatic 2. Manual; Chemical 3. Enzymatic; Chemical 4. Enzymatic; Manual A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.00

Objective Question				
53	994053	_____ is regarded as Chediak-Higashi syndrome, which is a _____ immunodeficiency. 1. Failure to activate NADPH oxidase; Tertiary 2. Lack of fusion of phagosome with lysosomes; Primary 3. Minimal neutrophils condition; Secondary 4. Defect in genes coding for NADPH oxidase and involved in oxygen dependent killing within the phagosomes; Primary A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.00

Objective Question				
54	994054	In cancer biology, TNBC refers - 1. Total neural brain cancer 2. Tumor of neutrophil basophil and curation 3. Triple negative breast cancer 4. Transgenic necrosis bone-marrow cancer A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.00

Objective Question				
55	994055		4.0	0.00

		During the larval life, juvenile hormones secreted from the _____ is responsible to maintain the larval condition. 1. Corpora blata 2. Hypothalamus 3. Corpus allatum 4. Thyroid A1 : 1 A2 : 2 A3 : 3 A4 : 4		
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Objective Question

56	994056	Given below are two statements: Statement I: Radial cleavage (whether holoblastic or meroblastic) of the fertilized egg is characteristic of deuterostome phyla such as Echinodermata and Chordata. Statement II: Spiral cleavage (whether holoblastic or meroblastic) is characteristic of protostome phyla such as Annelida, Arthropoda and Mollusca. In the light of above statements, choose the <i>most appropriate</i> answer from the options given below 1. Both the Statement I and Statement II are incorrect 2. Both the Statement I and Statement II are correct 3. Statement I is correct but Statement II is incorrect 4. Statement I is incorrect but Statement II is correct A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.00
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Objective Question

57	994057	In the absence of the fertilization of egg under normal cyclic biological event - A. the corpus luteum degenerates B. the production of sex steroids falls C. the endometrium is shed D. the cycle ends and recommences E. the cessation of menstruation occurs and regarded as 'menopause' Choose the most appropriate answer from the options given below: 1. A, C and E Only 2. B, C and E Only 3. A, B, C and D Only 4. D and E Only A1 : 1	4.0	0.00
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		A2 : 2		
		A3 : 3		
		A4 : 4		

Objective Question

58	994058	In the men, the time lapse between the primary spermatocyte and sperm release is about _____ days. 24 64 44 74 A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.00
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Objective Question

59	994059	Given below are two statements: Read the following statements regarding the food interrelationships Statement I: Glycogen → Glucose (gluconeogenesis) Statement II: Lactate, Alanine, Glycerol → Glucose (glycogenolysis) In the above statements, choose the <i>correct</i> answer from the options given below - Both the Statement I and Statement II are false - Both the Statement I and Statement II are true - Statement I is true but Statement II is false - Statement I is false but Statement II is true A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.00
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Objective Question

60	994060	When blood pressures falls, _____ cells release renin. Renin acts on angiotensinogen (from the liver) to convert it into _____. - Hypothalamus; Angiotensin I - Juxtaglomerular Apparatus (JGA); Aldosterone - Juxtaglomerular Apparatus (JGA); Angiotensin I - Adrenal gland (AG); Angiotensin I A1 : 1	4.0	0.00
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		A2 : 2		
		A3 : 3		
		A4 : 4		

Objective Question

61	994061	_____ and _____ are concentrated in the sensitive areas of the skin for cutaneous sensitivity in mammalian skins (e.g. human finger tips). 1. Statocysts; Neuromast 2. Sacculus; Merkel cells 3. Meissner's corpuscles; Merkel cells 4. Meissner's corpuscles; Rhodopsin A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.00
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Objective Question

62	994062	Jacob was passionate for his explorations in the biological world. Once while on an excursion trip he has noted down the key features about an aquatic organism, as under - a. Some have teeth, others filter plankton with baleen plates on the palate; b. Lack of external hair on the body; c. Presence of mammary gland; d. Hind limb are lost; e. Fore limbs are modified. As a taxonomist you are likely to place this organism in following order. 1. Proboscidea 2. Perissodactyla 3. Cetacea 4. Lagomorpha A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.00
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Objective Question

63	994063		4.0	0.00
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Select the correct combination of modes of transmission in human -

- A. Vertical : HIV and rubella
- B. Horizontal (Direct : close contact) : Measles, common cold
- C. Horizontal (Direct : sexual) : HIV, syphilis
- D. Horizontal (Direct : water contamination) : Polio virus, cholera
- E. Horizontal (Indirect) : sleeping sickness (tse tse fly)

Choose the most appropriate answer from the options given below:

- 1. A, C, D & E Only
- 2. A, D & E Only
- 3. A, B, C & E Only
- 4. A, B, C, D & E Only

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

64	994064	Brown trout, <i>Salmo trutta</i> are used as an indicator of the quality of forest streams, because - 1. they are genetically modified for this purpose 2. they are imported from Australia for this purpose 3. they are sensitive to acidification 4. this is a mere coincidence only A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.00
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Objective Question

65	994065		4.0	0.00
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Match the List I with List II

LIST I (Survivorship expressed as a semi log plot)		LIST II (Mortality pattern, with suitable example)	
A.	Type - I	I.	Good survival of the young with high death rates only in the old age (stereotyping the kind of pattern found in large mammals)
B.	Type - II	II.	Shows a steady mortality throughout life (reflecting the pattern found in some bird species)
C.	Type - III	III.	Represents very high mortality in the young (as occurs in spawning fish and fungi)

Choose the correct answer from the options given below:

1. A-I, B-II, C-III
2. A-II, B-III, C-I
3. A-I, B-III, C-II
4. A-II, B-I, C-III

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

66	994066	Organic matter and energy generated within the community are called as - 1. Autotrophs 2. Auto competent 3. Autochthonous 4. Allochthonous	4.0	0.00
		A1 : 1		
		A2 : 2		
		A3 : 3		
		A4 : 4		

Objective Question

67	994067	Which Geological Period known to have major biological events viz., extensive shallow seas, warm climate, first terrestrial arthropods, and first jawed fish during its time. 1. Devonian 2. Permian 3. Silurian 4. Jurassic	4.0	0.00
		A1 : 1		
		A2 : 2		

		A3 : 3		
		A4 : 4		

Objective Question

68	994068	 occurs when an individual causes an increase in the fitness of another individual of the same species at cost to its own survival or offspring production. 1. Grouping 2. Cooperation 3. Altruism 4. Eusocial Society A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.00
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Objective Question

69	994069	Robert started fresh animal cell culture of Jk9gh cell line for the very first time. This cell line is particularly famous for its rapid growth and the nature of adherent type. What should be taken care of the culture during and removing the culture for shifting to new flask/vial. 1. Sufficient nutrient medium for fast growing cell line and acid treatment. 2. Sufficient nutrient medium for fast growing cell line and opsonization process. 3. Sufficient nutrient medium, size of vial/flask for fast growing cell line and trypsinization. 4. Sufficient buffer solution in culture medium and autoclaving. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.00
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Objective Question

70	994070	Modern blood glucose level detection gadget uses based technology for the efficient and effective performance. 1. Bioremediation 2. RBC 3. Biosensors 4. Blood plasma A1 : 1 A2 : 2 A3 : 3	4.0	0.00
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A4 : 4

Objective Question

71	994071	The 3-D structure of the proteins can be primarily revealed by - 1. Western blotting 2. Northern blotting 3. X-ray crystallography 4. Confocal microscopy A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.00
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Objective Question

72	994072	Number of amino acids found in the nature are approximately - 1. > 300 2. 150-300 only 3. 50-230 only 4. 25 only A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.00
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Objective Question

73

994073

Match the List I with List II -

LIST I (Oxidant-reduced product)		LIST II (Life form)	
A.	Pyruvate - Lactate	I.	Heterolactic bacteria
B.	Fructose - Mannitol	II.	Muscle, lactic bacteria
C.	Dihydroxyacetone phosphate - Glycerophosphate	III.	Yeast
D.	Acetaldehyde - Ethanol	IV.	<i>Escherichia coli</i>

Choose the correct answer from the options given below:

1. A-IV, B-II, C-I, D-III

2. A-I, B-IV, C-II, D-III

3. A-III, B-I, C-II, D-IV

4. A-II, B-I, C-IV, D-III

A1 : 1

4.0

0.00

		A2 : 2		
		A3 : 3		
		A4 : 4		

Objective Question

74	994074	The membrane sterol in the animal plasma membrane is 1. β-sitosterol and stigmasterol 2. β-sitosterol 3. Cholesterol 4. Stigmasterol A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.00
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Objective Question

75	994075	In the sperm heads, the DNA is highly condensed and histones are replaced with small basic proteins known as - 1. Histone octamers 2. Solenoid 3. Protamines 4. Linker DNA A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.00
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Objective Question

76	994076	Which is the correct for the activity of DNA polymerases of <i>E. coli</i> 1. DNA polymerase II : 5'→3' exonuclease activity 2. DNA Polymerase IV : present in <i>E. coli</i> only 3. DNA polymerase I : 3'→5' exonuclease and 5'→3' exonuclease activity 4. DNA polymerase II and DNA polymerase III : 5'→3' exonuclease activity A1 : 1 A2 : 2 A3 : 3	4.0	0.00
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		A4 : 4		
Objective Question				
77	994077	Activation of amino acid is also referred as - 1. 70S initiation complex 2. Release factor 3. Aminoacyl-tRNA synthetase 4. Polysome A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.00
Objective Question				
78	994078	Genes that would be transmitted directly from father to the son and never appears in females are called as - 1. Holandric genes 2. Dormant genes 3. X-linked genes 4. Autosomal genes A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.00
Objective Question				
79	994079	The chromosomal number in tetrasomic aneuploid can be denoted as - 1. $(2n+2)-n$ 2. $(2n+2)$ 3. $(4n-2)$ 4. $(2n+4)$ A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.00
Objective Question				
80	994080		4.0	0.00

Match the List I with List II

LIST I (Class of Amino Acid)		LIST II (Amino Acid)	
A.	Polar	I.	Glutamic Acid
B.	Non-Polar	II.	Serine
C.	Acidic	III.	Valine
D.	Basic	IV.	Lysine

Choose the correct answer from the options given below:

1. A-III, B-IV, C-I, D-II
2. A-IV, B-II, C-I, D-III
3. A-I, B-II, C-IV, D-III
4. A-II, B-III, C-I, D-IV

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

81 994081

Hypercapnia is regarded as -

1. An increase in O_2 (pO_2) above 63 mm Hg
2. A decrease in CO_2 (pCO_2) below 32 mm Hg
3. An increase in CO_2 (pCO_2) above 43 mm Hg
4. Increase in cranial capacity due to exposure to low pressure

A1 : 1

A2 : 2

A3 : 3

A4 : 4

4.0

0.00

Objective Question

82 994082

The hormones of lowest molecular weight derived from the amino acids (such as tyrosine and tryptophan) are known as -

1. Free hormone
2. Pre-prohormone
3. Biogenic amines
4. Prohormone

A1 : 1

A2 : 2

A3 : 3

A4 : 4

4.0

0.00

Objective Question

83	994083	Vitamin B6 is known to include three compounds, viz. pyridoxal, pyridoxol and pyridoxamine. Given below are the two statements: Statement I : pyridoxamine carrying amino group. Statement II : pyridoxal is having hydroxyl group In the light of above statements, choose the most appropriate answer from the options given below - Both the Statement I and Statement II are correct - Both the Statement I and Statement II are incorrect - Statement I is correct but Statement II is incorrect - Statement I is incorrect but Statement II is correct A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.00
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Objective Question

84	994084	In the new born infants and hibernating mammals, at the time of arousal, the heat production is associated with a tissue known as - - White fat - Nervous tissue - Brown adipose tissue - Pink muscular tissue A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.00
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Objective Question

85	994085	Match the List I with List II <table><tr><th colspan="2">LIST I (Glucogenic amino acid)</th><th colspan="2">LIST II (Conversion product)</th></tr><tr><td>A.</td><td>Phenylalanine and tyrosine</td><td>I.</td><td>Succinyl CoA</td></tr><tr><td>B.</td><td>Isoleucine and valine</td><td>II.</td><td>Fumarate</td></tr><tr><td>C.</td><td>Alanine and cysteine</td><td>III.</td><td>Oxaloacetate</td></tr><tr><td>D.</td><td>Asparagine and aspartate</td><td>IV.</td><td>Pyruvate</td></tr></table> Choose the correct answer from the options given below: 1. A-I, B-III, C-II, D-IV 2. A-III, B-I, C-II, D-IV 3. A-II, B-I, C-IV, D-III 4. A-IV, B-II, C-III, D-I	LIST I (Glucogenic amino acid)		LIST II (Conversion product)		A.	Phenylalanine and tyrosine	I.	Succinyl CoA	B.	Isoleucine and valine	II.	Fumarate	C.	Alanine and cysteine	III.	Oxaloacetate	D.	Asparagine and aspartate	IV.	Pyruvate	4.0	0.00
LIST I (Glucogenic amino acid)		LIST II (Conversion product)																						
A.	Phenylalanine and tyrosine	I.	Succinyl CoA																					
B.	Isoleucine and valine	II.	Fumarate																					
C.	Alanine and cysteine	III.	Oxaloacetate																					
D.	Asparagine and aspartate	IV.	Pyruvate																					

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

86	994086	In order to have the maximum magnification using light microscope, the angle between objective lens and object should theoretically be - 1. 60^0 2. 45^0 3. 190^0 4. 180^0 A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.00
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Objective Question

87

994087

Match the List I with List II

LIST I (Requirement of researcher)		LIST II (Tool to be used)	
A.	Concentration of specific protein in the solution form	I.	Scanning electron microscopy
B.	3-D high-resolution image of object	II.	Transmission electron microscopy
C.	High-resolution image through the sample	III.	UV spectroscopy
D.	Surface topography of microscopic sample	IV.	Confocal microscopy

Choose the correct answer from the options given below:

1. A-II, B-IV, C-I, D-III

2. A-I, B-II, C-IV, D-III

3. A-III, B-IV, C-II, D-I

4. A-IV, B-I, C-III, D-II

A1 : 1

A2 : 2

A3 : 3

A4 : 4

4.0

0.00

Objective Question

88	994088		4.0	0.00
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Match the List I with List II

LIST I (Reaction with substrate and product only)		LIST II (Responsible enzyme)	
A.	3-Phosphoglycerate $\rightarrow$ 2-Phosphoglycerate	I.	Phosphofructokinase
B.	1,3-biphosphoglycerate $\rightarrow$ 3-Phosphoglycerate	II.	Phosphoglycerate kinase
C.	Fructose-6-phosphaite $\rightarrow$ Fructose-1,6-biphosphate	III.	Phosphoglycerate mutase
D.	Fructose-1,6-biphosphate $\rightarrow$ Fructose-6-phosphaite	IV.	Fructose-1,6-biphosphatase

Choose the correct answer from the options given below:

1. A-I, B-III, C-IV, D-II
2. A-III, B-II, C-I, D-IV
3. A-III, B-I, C-II, D-IV
4. A-IV, B-II, C-I, D-III

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

89 994089

Match the List I with List II

4.0

0.00

LIST I (Antibody)		LIST II (Key property)	
A.	IgA	I.	Stimulate mast cells to release a range of factors
B.	IgE	II.	Found on the surface of mature B lymphocytes and in traces in the various body fluids
C.	IgG	III.	Main class of antibody in secretion
D.	IgD	IV.	Main immunoglobulin in the bloodstream late in the primary immune response and particularly during secondary immune response

Choose the correct answer from the options given below:

1. A-II, B-I, C-III, D-IV
2. A-I, B-III, C-II, D-IV
3. A-I, B-II, C-IV, D-III
4. A-III, B-I, C-IV, D-II

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

90 994090

4.0

0.00

- A. Polyacrylamide gel is used to separate smaller DNA molecules
 B. Agarose is used to separate larger DNA fragments
 C. Western blotting is used to separate proteins
 D. In the instruments for electron microscopy, the lens are made up of very high grade fine Belgium glass (Ruska®)
 E. Phase contrast microscopy is based on the principle of staining the sample with heavy metal stains only

Choose the most appropriate answer from the options given below:

1. A, B, C, D and E Only
2. B, C, D and E Only
3. A, B, and C Only
4. A, B, C and D Only

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

91

994091

Match the List I with List II

LIST I (Organ secreting)		LIST II (Hormone)	
A.	Corpus luteum	I.	Atrial natriuretic peptide
B.	Heart	II.	Progesterone
C.	Pineal	III.	Thymoprotein
D.	Thymus	IV.	Melatonin

Choose the correct answer from the options given below:

1. A-I, B-II, C-IV, D-III

2. A-III, B-I, C-IV, D-II

3. A-II, B-I, C-IV, D-III

4. A-II, B-I, C-III, D-IV

A1 : 1

A2 : 2

A3 : 3

A4 : 4

4.0

0.00

Objective Question

92	994092		4.0	0.00
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Release of parathormone from parathyroid glands results into -

- A. Accumulation of Ca^{2+} in muscles
- B. Kidney to release Ca^{2+}
- C. Intestine absorbs Ca^{2+}
- D. Release of Ca^{2+} from bones
- E. Kidney conserves Ca^{2+}

Choose the most appropriate answer from the options given below:

- 1. A, C & D Only
- 2. A, C, D & E Only
- 3. A, B, C, D & E Only
- 4. C, D & E Only

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

93 994093

Match the List I with List II

LIST I (Secretion)		LIST II (Enzymes)	
A.	Gastric juice	I.	Lactase
B.	Pancreatic juice	II.	Nucleases
C.	Intestinal juice	III.	Pepsin

Choose the correct answer from the options given below:

- 1. A-II, B-I, C-III
- 2. A-III, B-I, C-II
- 3. A-III, B-II, C-I
- 4. A-I, B-II, C-III

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

94 994094

Match the List I with List II

LIST I (Chemical class of hormone)		LIST II (Hormone example)	
A.	Steroid	I.	Insulin
B.	Proteins and polypeptides	II.	Testosterone
C.	Derivatives of amino acid tyrosine	III.	Thyroxine
		IV.	Epinephrine

Choose the correct answer from the options given below:

1. A-I & II, B-III, C-IV
2. A-II, B-I, C-III & IV
3. A-II & III, B-I, C-IV
4. A-I, B-II & III, C-IV

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

95 994095

Trochophore larva may be best placed in the following group -

1. Protostomes
2. Deuterostomes
3. Radiata
4. Parazoan

A1 : 1

A2 : 2

A3 : 3

A4 : 4

4.0

0.00

Objective Question

96 994096

Match the List I with List II

LIST I (Organism)		LIST II (Urine Concentration Related to Blood)	
A.	Freshwater fishes	I.	Weakly hyperosmotic
B.	Saltwater fishes	II.	Hypoosmotic
C.	Marine mammals	III.	Iso-osmotic
D.	Marine birds	IV.	Very hyperosmotic

Choose the correct answer from the options given below:

1. A-III, B-I, C-II, D-IV
2. A-II, B-III, C-IV, D-I
3. A-II, B-I, C-III, D-IV
4. A-IV, B-I, C-III, D-II

A1 : 1

4.0

0.00

		A2 : 2		
		A3 : 3		
		A4 : 4		

Objective Question

97	994097	A specialized structure viz., synsacrum can be found exclusively in - 1. Reptiles 2. <i>Notopterus notopterus</i> 3. Birds 4. <i>Danio sp.</i> A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.00
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Objective Question

98	994098	Identify the structure that filters foreign substances from blood, manufactures phagocytic lymphocytes, stores red blood cells and releases blood to the body when blood loss occurs - 1. Thymus gland 2. Spleen 3. Bursa of fabricius 4. Lymph nodes A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.00
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Objective Question

99	994099	Sterilization is an important step in laboratory exercises. which chemical/s are being used in steps of various sterilizations - A. Benzoic acid, metabisulphides B. Isopropanol, benzyl alcohol C. Chloroform, chlorobutanol D. Phenyl alcohol, hydrogen cyanide (HCN) E. Formaldehyde, UV rays Choose the most appropriate answer from the options given below: 1. A, B, C & E Only 2. A, B, D & E Only 3. A, C, D & E Only 4. A, B, C, D & E Only	4.0	0.00
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		A1 : 1 A2 : 2 A3 : 3 A4 : 4		
Objective Question				
100	994100	In the cell biology, the onion root tip is used to study (including after treatment with certain chemical) especially the following - A. Different stages of mitosis B. Leptotene of meiosis-I C. Polyploidy D. Zygotene of meiosis-I E. Diplotene of meiosis-I Choose the most appropriate answer from the options given below: 1. A, B & E Only 2. A & C Only 3. B, C, D & E Only 4. B, D & E Only A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.00