WAKISSHA JOINT MOCK EXAMINATIONS

JULY/AUGUST: _____ INDEX No. _____

CANDIDATE'S NAME _____

SUBJECT BIOLOGY PAPER 553/1 SIGNATURE _____

MARKING GUIDE 2018

SECTION A:

1.	C	8.	C	15.	C	23.	C
2.	B	9.	C	16.	C	24.	A
3.	D	10.	B	17.	D	25.	C
4.	C	11.	A	18.	D	26.	C
5.	D	12.	A	19.	A	27.	A
6.	D	13.	C	20.	D	28.	A
7.	C	14.	A	21.	B	29.	A
				22.	D	30.	D

(30) Marks
01 MK @

SECTION B:

31. a)

(i) A: The body temperature of animal A changes/varries as environmental temperature changes/varries; 01 MarK

OR

Body temperature of Animal A increases with increase in environmental temperature and decreases with decrease in environmental temperature;

(ii) B: The body temperature of animal B remains constant as environmental temperature changes/varies; 01 MarK

Rej: body temperature remains constant alone

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O&A

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(ii)

b)(a) I:- The body temperature of animal A changes/ varries as environmental temperature changes because it lacks a mechanism of maintaining a constant body temperature; / can't thermoregulate 01 MarK

(ii) B:- The body temperature of animal B remains constant as environmental temperature changes because it has a mechanism of maintaining a constant body temperature; / can thermoregulate 01 MarK

c) - Animal A would be less active; due to low environmental temperature; since it can not maintain a constant body temperature; while animal B would be more active; as it can maintain a constant body temperature; 05M 01MK

OR

- Animal A would be less active; than Animal B; due to low environmental temperature; because animal A can not raise it's body temperature; while animal B can raise it's body temperature;

Rej: inactive for less active

Rej: Active for more active

d)- Animal B would respond faster; than animal A; (to stimuli) since animal B can maintain it's body temperature constant; at all times; than Animal A; which increases chances of survival of animal B;

e) - Have a lot of fur; (that traps air) to insulate the body against heat loss;
- Have a lot of fat; to insulate the body against heat loss; / Conserve heat
- Large; and so have a small surface area to volume ratio for less heat loss;
- They are generally large; to produce much heat; (to compensate the lost heat)
- Have small extremities; to reduce surface area for less heat loss;

Any 02 correct pairs
06 Marks
01 MK @

Acc: Structure alone
Rej: Function alone without structure

TOTAL = (20)

32. a) A - Stigma;
B - Bract; / glume
C - Anther;

Rej: - Wrong spelling
- plurals

01½ Marks, 0½ MK @

b) Wind; 0½ MK

c) - Long filaments; to allow Anthers to hang freely (outside) and shake with the slightest wind to release pollen grains;
- Long feathery stigma; / extended / exposed / divided to trap pollen grains in air;
- Large anthers; to produce many pollen grains;

Any 02 correct pairs
04 Marks
01 MK @

d) - stigmas are above the anthers;
- self sterility in some plants;/ incompatibility
- When the stigma matures before anthers;/ protogyny
- When the anthers mature before stigma;/ protandry
- When male and female flowers are borne on different plants;/ unisexual flowers/ dioecious plants
- stamens hang outside the corolla;
- physical barriers between stamens and stigma;/ herkogamy

Any 04
04 Marks
01 MK @

TOTAL = (10) MARKS

33 a)
Vitamin - Vitamin K;/ Phylloquinone
Enzymes - Thromboplastin;/ thrombokinase or
- Thrombin.
Mineral - Calcium;

01 MK @
03 Marks

b) - For matching of antigens;/ antibodies; of (donor and recipient) to prevent agglutination;/ for safe blood transfusion.

03 Marks
01 MK @

or

- Matching of blood groups; to prevent agglutination;

c) - Phagocytosis/ engulfing microbes/ ingesting microbes;
- production of antibodies;/ antitoxins

02 Marks
01 MK @

d) (i) - Haemophilia;/ bleeders' disease

01 Mark

SECTION C

34 a) - Soil conservation is the protection/preservation and careful management of soils to maintain it's fertility/productivity

b) - Mulching;
- Addition of organic manures/fertilizers;
- Addition of inorganic/artificial fertilizers;
- Crop rotation;
- Extended fallowing/bush fallowing;
- Biogeochemical/nutrient cycles;/carbon cycle and nitrogen cycle
- Irrigation;
- Terracing;
- Mixed cropping/intercropping/strip cropping
- Contour ploughing
- Afforestation/re afforestation

c) - Large amount of fertilizers in the lake cause rapid algal growth; (aquatic plant growth)/ algal blooms/Eutrophication.
When aquatic plants/algae die they are decomposed by aerobic bacteria; which decrease oxygen levels in water; causing fish to suffocate and die;
- Artificial fertilizers lead to change in the pH of the water.

OMK 6
12 marks

d). Pollutant	Effect
- Untreated sewage;	- Decomposed by aerobic bacteria and reduces dissolved oxygen in water; - leading to death of fish / migration
- Acids;	- Kill fish and other organisms;
- Lead / Mercury / Copper;	- Toxic to many aquatic organisms;
- pesticides / herbicides;	- Toxic to aquatic organisms and kills them;
- Oil;	- cuts off entry of oxygen into water leading to suffocation of aquatic organisms
- Thermal / heat pollution / hot water;	- Kills most of the aquatic organisms
- Domestic wastes / refuse;	- cut off oxygen supply leading to death
- Silt / soil;	- reduces light penetration / affects vision

Any three pollutants and their effects 06 MK

01 MK @

TOTAL = (15) MARKS

35: (i) Mouth:

- Has teeth; for cutting / tearing / chewing / mastication; to increase surface area for enzyme action and easy swallowing
- Has salivary glands; which secrete saliva to soften and lubricate food for easy swallowing;
- Saliva; contains salivary amylase / ptyalin that catalyses the breakdown of starch to maltose;
- Has muscular tongue; to turn the food for Proper Mixing with saliva; / rolls food into bolus for easy swallowing

04 Mark

0½ MK @